Chapter 3

Learning Cities as Smart Cities: Connecting Lifelong Learning and Technology

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ABSTRACT

The purpose of this chapter is to explore the connections between technology and lifelong learning and the respective initiatives of smart cities and learning cities. The Pew Research Center reports that place-based learning remains vital for pursuing knowledge especially from digital technology. This means that although learning occurs in traditional places (home, work, or community), the use of technology further enhances learner engagement across the entire society. As such, learning cities is a placed-based initiative for implementing education and lifelong learning. Smart cities, similarly, expand the implementation of education and lifelong learning, but through a broader medium of digital technology and the internet. The important connection between lifelong learning (as learning cities) and technology (as smart cities) is the aim for providing access to every individual in society. This chapter offers an analysis of two concepts representing these two cities’ initiatives.

INTRODUCTION

This chapter considers the socio-technical impact of smart cities from the alternate direction of lifelong learning, its potential connection to technology. In this consideration, this chapter introduces another description of the city, called “learning
cites,” and its possible future impact upon smart cities. The Pew Research Center (2016) reports that placed-based learning remains vital for pursuing knowledge especially from digital technology. This means that although learning occurs in traditional places (home, work, or community), the use of technology further enhances learner engagement to the entire society. As such, learning cities is a placed-based initiative for implementing education and lifelong learning (Scott, 2015). Smart cities, similarly, expand the implementation of education and lifelong learning, but through a broader medium of digital technology and the Internet. The important connection between lifelong learning (as learning cities) and technology (as smart cities) is the aim for providing access to every individual in society. The role of cities or metropolitan areas is equally vital for providing lifelong learning and technology to their communities.

According to the Pew Research Center (PRC), lifelong learning can be either for personal or professional purposes. Majority of people (82% of respondents) have done some personal learning with a smartphone and home broadband connection (PRC, 2016). However, professional learning varies between groups such as educational level, household income, technology assets (smartphones, broadband connection), race-and-ethnicity, and type of job (government versus small business).

In fact, the focus on cities involves governance that can alleviate many disparities between education, income, and technology. Also, cities have the potential to transform work, leisure, and communities thus becoming sustainable and prosperous (Dirks & Keeling, 2009; Florida, 2012). Chourabi et al. (2012) view the importance of “people and communities” regarding smart cities with such factors as education, communication, participation, and accessibility with quality of life. Likewise, Scott (2015) explain learning cities as the “citizenship of learning” where everyone participates in its education and learning. Given the dominance of smart cities’ discussion that features technology, infrastructure, and economic development, this chapter contends that any socio-technical discussion of smart cities, must not bypass the social dynamics of education and learning by the people and communities. The following sections will introduce a new audience to learning cities, its direct connection to learning cities, and its potential partnership with smart cities.

INTRODUCTION OF LEARNING CITIES

Learning cities represent one of the emerging topics in adult continuing education that contributes to changing boundaries in the field (Ross-Gordon, Rose, & Kasworm, 2017). The learning cities topic develops from historical interests in creating a learning society to more contemporary ambitions toward lifelong learning for all (Cobb, 2013; Facer & Buchczyk, 2019; UNESCO, 2016; Valdes-Cotera, Wang,
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Lunardon, 2018). Over several decades, lifelong learning has supplanted other concepts such as community, recurrent, and lifelong education (Jarvis, 2004; Martin, 1987; Yorks & Scott, 2014). Hence, there are many interpretations of lifelong learning, due to its wide-ranging goals in the adult continuing education field. The concept of lifelong learning ranges from personal to professional purposes (Pew Research Center, 2016); economistic to humanistic perspectives (Regmi, 2017); neo-liberalism to social democratic political ideologies (Fuller, 2018; Lee & Jan, 2017); and from other viewpoints regarding lifelong or “life-wide” learning within formal, informal, and nonformal settings including technology and digital environments (Borkowska, & Osborne, 2018; Boshier, 2005; Marsick et al. 2016).

The topic of learning cities provides a practical platform for considering the appropriate application and expression of lifelong learning (and many other concepts). The idea of learning cities and its diplomatic establishments around the world have occurred mostly in developed countries in Europe and Asia (Choi & Yang, 2012; Kearns, 2012; Li, Hao, & Nanchen, 2013: Longworth, 1999; Osborne, Kearns, & Yang, 2013). However, the vision and viability of learning cities span around the globe in Africa, Australia, and South America for developed and undeveloped countries (Biao, 2013; Walters, 2005; Wang & Kintrea, 2019). Unfortunately, the formal establishment of learning cities (by international recognition) have not yet taken place in the United States (U.S.), despite North American advances in Canada and Mexico. There are multiple explanations for the absence of learning cities in the U.S. mostly involving political and ideological reasons and its tenuous relationship with major international organizations in global education and lifelong learning policy.

Post-2000 period, there are four major international organizations in the “arena of lifelong learning policy discourse” (Lee & Jan, 2017; p. 375): 1) UNESCO (the United Nations Educational, Scientific, and Cultural Organization); 2) OECD (the Organization for Economic Cooperation and Development); 3) EU (European Union); and 4) the World Bank. These international organizations are key players in the field of global educational development that includes lifelong learning (and policies) as a core part of discourse (Lee & Jan, 2017). Their contributions to lifelong learning, lifelong education, and learning cities are numerous from seminal reports (Faure Report, 1972 and Delors Report, 1996) to contemporary international databases, directories, surveys, policy documents, case studies, and other reports (e.g., Memorandum of Lifelong Learning, 2000; Promoting Adult Learning, 2005; Learning For All, 2011; EPALE-Electronic Platform for Adult Education in Europe, 2015) (Lee & Jan, 2017).

The emergence of learning cities within the discourse of lifelong learning explain how many legislators, policymakers, even educators have condensed the topic of learning cities as only an economics-based implementation of lifelong learning policy (e.g., human capital) (U.S. Dept of Health, Education, and Welfare, 1978).
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However, Nichols and Dobson (2018) have considered learning cities as “placed pedagogies” with multiple explorations into the places and spaces where learning happens. Others have considered environmental awareness and sustainability (Kearns, 2012; Pavlova, 2018; Wang & Kintrea, 2019). Also Scott (2015) has regarded learning cities for adult learners in the United States that comprehensively include not only policies and programs (including pedagogies), but also partnerships and pursuits including art, public health, music, sports, and other creative applications/expressions of education and learning.

Unfortunately, viewing the topic of learning cities only through economics and policies further explain argumentative political, ideological, and economical debates about the actual purposes of lifelong learning. These critics point to how lifelong learning has not carried on the important purposes of other concepts, especially the concept of lifelong education (Boshier, 2005; Wain, 2000) relating to global educational reform and geo-social policy. Since the learning cities topic has been tied to lifelong learning, further critiques worth noting involve whether learning cities is the “real deal or fake news” (Boshier, 2018). Since the learning cities topic has reasonably been described regarding policies of lifelong learning, there are other underlying concepts and conditions by which the learning cities must also be considered. For these reasons, a broader view such as learning cities-for-all invites a more comprehensive discussion about multiple purposes of learning cities including lifelong learning at both individual and system levels.

LEARNING CITIES-FOR-ALL (INCLUDING SMART CITIES)

Learning cities-for-all is a conceptual model that takes on many of the previous ideas of learning cities but re-purposes them into a broader view that acknowledges the dominant role of lifelong learning in conjunction with other adult-educational concepts. The challenges for the adult continuing education field is its struggle to sort through the distinctive characteristics of other concepts that have been supplanted, replaced, or even unseated by lifelong learning. Also, the field’s often wide acceptance of lifelong learning has allowed this concept to expand unexamined, unmeasured, and still underutilized. This chapter takes on the challenge of lifelong learning through a learning cities-for-all conceptual model that places adult-educational concepts into more accurate description. When lifelong learning is assessed more thoroughly related to learning cities, then the concept of lifelong learning can be advanced in appropriate context and condition. As such, this article advances broader philosophical, theoretical, and conceptual connections of learning cities beyond simply lifelong learning.
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One of the other challenges and concerns of the field involves clarifying concepts for scholars, researchers, and practitioners such as lifelong learning and many others. Thus, this model will provide distinctions between adult-educational concepts namely experiential education, lifelong education, experiential learning, as well as lifelong learning. One immediate step in clarifying these concepts is to distinguish them by the domains of education and learning (Thomas, 1991) and the qualities of experiential and lifelong. The learning cities-for-all model invites students, community members, workers, and adult learners to continually participate in the real-world development of learning cities around the world.

This learning-cities-for-all learnership (LCLL) model and its components describe the underlying process of decisions for all learners, especially adults. Thus, there are three essential purposes of the LCLL model; for conceivably this model:

1. Clarifies adult-educational concepts between experiential education, lifelong education, experiential learning, and lifelong learning;
2. Attributes specific roles and responsibilities between cities and citizens; and
3. Offers a practical plan for implementing policy, programs, partnerships, and other distinctive pursuits.

This model is a simplified version of the actual underlying parts being suggested. This means that it identifies several important aspects about how adults, within their environment, make decisions about education and learning. Yet this model does not capture all the dimensions or distinctions of learning cities; especially without becoming more complex or even more confusing.

Table 1: Learning Cities-for-All Learnership (LCLL) Model Components proposes multiple concepts important to understanding the learning cities-for-all model introduced (Scott, 2015) and further advanced in this article, including learner-leadership (or learnership) that connects education-learning with leadership-citizenship. While this table is a snapshot of conceptual distinctions, it decisively serves as a guide about learning cities for adult continuing education researchers, scholars, and practitioners.

Table 1 illustrates how lifelong learning is connected to a complex framework of other concepts and categories. Also, it explains the alignments of lifelong learning and the reasons for its criticisms and concerns.

For example, this table has been organized based upon four essential distinctions, from ultimate ideals to practical implementations. Such that if we assume each distinction is vertically aligned, then we can immediately see how historical and contemporary concepts have been misaligned and miscategorized (for example, differences between the main purposes of lifelong learning and lifelong education).
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Table 1. Learning Cities-for-All Learnership (LCLL) Model Components

<table>
<thead>
<tr>
<th>Ultimate Ideals</th>
<th>Knowledge</th>
<th>Wealth</th>
<th>Unity</th>
<th>Freedom</th>
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<td>Adult Education</td>
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<td>Political</td>
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<td>Weil &amp; McGill</td>
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<td>Experience as Social</td>
<td>Experience as Interpersonal</td>
<td>Experience as Learner-</td>
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<td>(1989) Villages</td>
<td>Educational Outcome (I)</td>
<td>Change &amp; Action (III)</td>
<td>Personal (IV)</td>
<td>Centered &amp; Controlled (II)</td>
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<td>Delors Report</td>
<td>Learning to Know</td>
<td>Learning to Do</td>
<td>Learning to Live Together</td>
<td>Learning to Be</td>
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<td>(1996) Four</td>
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<td>Pillars</td>
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<td>Vocational</td>
<td>Critical</td>
<td>Confessional</td>
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<td>&amp; Johnston (1997)</td>
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<td>Learner as Worker</td>
<td>Learner as Member</td>
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<td>Responsibilities</td>
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<td>City Roles &amp;</td>
<td>City as Institution</td>
<td>City as Workplace</td>
<td>City as Community</td>
<td>City as Learning</td>
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<td>Practical</td>
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For simplicity, this table has been further organized into three sections: First, this table begins by stating ultimate ideals in society (knowledge, wealth, unity, and freedom) by aligning them to distinctive adult-educational concepts (experiential education, lifelong education, experiential learning, and lifelong learning). Second, this table further aligns noteworthy scholarly contributions and their respective concepts across distinctive characteristics (Bolman & Deal, 1984/2016; Delors Report, 1996; Senge, 1990/2006; Usher, Bryant, & Johnston, 1997; Weil & McGill, 1989).

Third, this table advances the aspects of learning cities-for-all (Scott, 2015) by attributing specific roles, responsibilities, and practical implementations between cities and citizens. Also, this overall LCLL model represents distinctions among
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learners (at an individual and collective level) and cities (at a singular and systems level) that promotes learner-leadership, stated as learnership (Tight, 2001).

Given some of the divisive debates surrounding citizenship, learning cities as a phrase, instead promotes an all-inclusive, “citizenship of learning,” civitas cognitionis (Scott, 2015) that views all learners as citizens of learning without exclusion. Despite the current local climate about foreigners, undocumented immigrants, workers, students, or more divisive language such as illegal aliens, this citizenship of learning and the practice of learnership can belong to everyone by viewing all adults as learner-leaders. Likewise, Tight (2001) views learnership as a social adult role just as other roles such as student, worker, or parent. Learnership, in the context of the learning cities-for-all model, includes social roles such as student, worker, member, or leader, but also through the function of lifelong learning, encompasses broader pursuits of scholarship, entrepreneurship, citizenship, and leadership. Lastly, this model applies an analytic approach to adult-educational concepts including learnership for the purposes of concept clarity and understanding of lifelong learning and learning cities (Eckert, et al. 2012; Elias & Merriam, 2007).

Section 1: Ultimate Ideals and Adult Educational Concepts

Many thinkers have associated learning cities (regions or communities) with the broader vision of a learning society (Merriam et al., 2007). In fact, one of the appeals toward the learning cities concept is due to how it grounds the historically idealistic learning society concept to geographic locations (Ross-Gordon, et al, 2017). While there is a benefit to moving the learning society vision toward more practical actions, this should not remove the utopian ideals from complete view. So, the model components still reflect ultimate ideals such as knowledge, wealth, unity, and freedom. These ideals are even wider than benefits of learning cities than individual empowerment/social cohesion, sustainable/economic development, and cultural prosperity (UNESCO, 2016; Valdes-Cotera et al. 2018).

Although learning cities may set-in-motion the utopian view of the learning society, it further promotes ideals that are common in many societies. The model further aligns these ideals to four distinctive adult educational concepts including lifelong learning. To make such an alignment, at first sight, may appear overreaching, but the remaining sections will help to provide context and content toward these concepts and ideals. But for now, experiential education is aligned to the ideal of knowledge; lifelong education to wealth; experiential learning to unity; and lifelong learning to freedom.
Section 2: Noteworthy Scholarly Contributions

The model incorporates many scholarly contributions and research relevant to adult continuing education (Scott, 2012). More specific, it features five significant references to help explain both the interests of both the society and the self (Bolman & Deal, 1984/2016; Delors Report, 1996; Senge, 1990/2006; Usher, Bryant, & Johnston, 1997; Weil & McGill, 1989). The interplay and engagement between society-and-self is at the core of the learning cities-for-all learnership model (Scott, 2015). Adult continuing education is an interdisciplinary field. These five references and their contributions to the model include disciplines such as higher education, leadership theory, philosophy, economics, sociology, systems theory, political science, public policy, anthropology, and organizational development.

**Bolman & Deal frames of organizations.** Bolman & Deal (1981/2016) has become a cornerstone in public service and administration for considering different types of organizations. These authors provide a simplified breakdown of four frames or types of organizations. These organizational frames, namely structural, human resources, political, and symbolic help business leaders and managers continually rethink and reframe their organizations.

The *structural* frame represents factory-design organizations and social architectures with clear missions, roles, goals, and tasks for technology and its environment. The *human resources* frame demonstrates family and relationship-style organizations focusing on needs, skills, and empowerment. The *political* frame exemplifies organizations of advocacy and ideology with attention to power, politics, conflict, and competition. The *symbolic* frame illustrates organizations of inspiration and culture with consideration for stories, metaphors, even heroes and ceremonies (Bolman & Deal, 1981/2016).

In the overall construction of learning cities, the Bolman and Deal organizational frames provide keen insight into the aspects of the learning-cities-for-all model, specifically academic, economic, politic, and iconic aspects (Scott, 2012). While the Bolman and Deal frames has been informative regarding organizations, it still does not directly capture all of the other considerations important to learning cities, such as experience, education, and learning.

**Weil and McGill Villages of Experience**

Weil and McGill (1989) provides an exceptional assessment of experiential learning. In making sense of the broad concept, these authors conceptualize experiential learning into a four villages’ framework. According to Weil and McGill, the four villages of experiential learning are 1) as assessment and accreditation of prior learning; 2) the basis for change in postsecondary institutions; 3) the basis for
community action and social change; and 4) as a medium for personal growth and interpersonal development.

The immediate question is how this model distinguishes these so-called experiential learning villages across other adult-educational concepts. This question underscores a key point regarding concept clarity and the importance of applying an analytic philosophical approach. This approach is applied throughout the LCLL model, for it is the analytic philosophical perspective that can assess experiential learning across the aspects of education and learning.

As such, this model reconceptualizes the four villages’ framework according to their main purposes that extend beyond the limits of the term, experiential learning, but associate with a broader and more adaptable term, experience (Chickering, 1977; Kolb, 1984). Thus, this model conceives village one: experience as educational outcome; village two: experience as learner-centered and learner-controlled; village three: experience as social change and community action; and village four: experience as interpersonal and personal interaction. The four villages are reordered in this LCLL model. Because village one address educational outcomes, such as credits for prior learning assessments (PLA), this is better placed as experiential education. Village three addresses social change and action that best align to lifelong education, given its interest in change and reform. Likewise, village two promotes learner-centered and controlled experiences that align well to the hallmark of lifelong learning that focuses on the individual learner. Given these alignments, the essence of experiential learning is arguably best viewed through village four, representing the interaction of experiences, personal and interpersonal.

**Delors Report Pillars of Education and Learning**

The Delors (1996) Report has been considered the blueprint of lifelong learning, learning society, and especially learning cities. While there may be some debate as to how the four villages are represented, there should be no doubt or confusion as to how the four pillars of the Delors Report align to the related aspects of the learning cities-for-all learnership (LCLL) model. In fact, the learning cities model had been constructed upon the blueprint of the Delors Report. Other countries and organizations have adopted these pillars as factors of measuring education and learning in society (CLI, 2010). Moreover, the four pillars, given its wide acclaim, could also arguably provide a roadmap to the expressed ultimate ideals of knowledge, wealth, unity, and freedom.

Described as the four pillars of education in the report, these pillars clearly spread across the continua of education and learning. As noted, these pillars (expressed here in alignment to universal ideal) are: Learning to Know (knowledge); Learning to Do (wealth); Learning to Live Together (unity); and Learning to Be (freedom).
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In the context of the LCLL model, *learning to know* is academic, relating to formal structures of education. *Learning to do* is economic, relating to the economic concerns of labor, land, and capital, especially human capital. *Learning to live together* is politic, relating to the social environment. *Learning to be* is iconic, relating to the grand image of learning that transcends lives through generations. Learning to be had been first introduced by the Faure Report (1972) and in more recent reports are considering another pillar, called *learning to change* or transform oneself and society (Lee & Jan, 2017; UNESCO, 2016) that highlights education and learning at both the individual and societal level.

Usher, Bryant, and Johnston Social Practices

Usher, Bryant, and Johnston (1997) provide a representation of experiential struggle through an interpretative “map of experiential learning in the social practices of postmodernity.” Figure 1 depicts a consumer society socialized by consumer choices. These choices are represented by four quadrants, namely *lifestyle*, *vocational*, *confessional*, and *critical*; also explained as the “social practices” of discursive/material experience (p. 105-117).

A persuasive feature of the map does not rest solely in the name of these four consumer choices, but rather in the underlying continua or axes that develop and surround these choices, specifically the continuum of application and expression (horizontal axis) and the continuum of autonomy and adaptation (vertical axis), respectively. The learning cities-for-all learnership (LCLL) model associate application to *education*, expression to *learning*, adaptation to *experiential*, and autonomy to *lifelong*, respectively.

Each of these social practices are defined and analyzed based on their relationship to the factors of experience, knowledge, and pedagogy. While the Usher et al. (1997) description of these practices are often counter to how the LCLL model is promoted, these practices, and especially the continua, do offer insights into many of differences that exist regarding adult-educational concepts. Lastly, these authors applaud the Weil and McGill (1989) village framework of experiential learning and believe that the map of social practices matches well with the village framework. As Usher et al. (1997) explain,

*The exploration and development of the [social practices] quadrants may help to complement and expand upon the impact of the villages. Indeed, meaningful distinctions and connections can be made between these categorisations in terms of their emphases, their dynamics and complexity (p. 117).*
The LCLL model advances these meaningful distinctions and connections through considering the map of social practices along education and learning domains instead of application and expression. Likewise, along experiential and lifelong qualities instead of autonomy and adaptation, respectively. Given this advancement, vocational would be academic (experiential education); critical would be economic (lifelong education); confessional would be politic (experiential learning) and lifestyle would be iconic (lifelong learning). The illustration in Figure 1, will later be seen in Figure 2: Learning Cities-for-All Map (in section three of table).

**Senge Core Four Disciplines**

The core four disciplines for learning organizations that Senge (1990/2006) describes leads to the quintessential fifth discipline, “systems thinking.” The core four disciplines are personal mastery, mental models, shared vision, and team learning. Senge defines a discipline as a series of applied practices and principles, which provide accessible actions to a rather abstract idea of systems thinking. In order to build learning organizations, personal mastery requires the willingness of individuals to take responsibility for their personal growth and development; mental models require the openness to discover our way of thinking and reflecting upon
organizational practices to gain shared understandings and patterns of change (Senge, 1990/2006). Similarly, shared vision invites a relationship with the organization, which is “the first step in allowing people who mistrusted each other to begin to work together” (p. 194); and team learning, which Senge explains will build upon personal mastery, mental models and shared vision. Team learning is the process of aligning and developing the capacity of the team members to create desirable results for the organization.

These core four disciplines build upon the culminated notion of systems thinking. For Senge, systems thinking is an approach to seeing through details and complexity and organizing them into a coherent story. A story that “illuminates the causes of problems and how they can be remedied in enduring ways” (Senge, 1990/2006; p. 124). Many leaders interested in developing learning cities have drawn upon Senge’s systems thinking for learning organizations (Boshier, 2005) and these core disciplines that lead to systems thinking is an integral part of this learning cities-for-all learnership model.

Section 3: Learning Cities’ Roles, Responsibilities, and Practical Implementations

This is the last section of Table 1: Learning Cities-for-All Learnership (LCLL) Model Components that describes the Scott (2015) Learning Cities-for-All Aspects as a composite of the noteworthy scholarly contributions, adult-educational concepts, and ultimate ideals. At this point, some patterns should have emerged related to these components. First, that there are four essential areas that organizes all of them. Second, that these components relate to individuals, organizations, or societies at a systems level. Third, and perhaps keenly apparent for some, not all components fit agreeably within an all-inclusive model, due to different labels, terms, and definitions or opposing contexts, purposes, and more specific details.

And yet, however, these patterns provide a blueprint for the underlying structures regarding a more comprehensive view and vision of learning cities. A view/vision that pulls together attention in educational reform, economic growth, organizational learning, as well as and other individual and community change that advance learning cities for “development, innovation, and equity” (Ross-Gordon, Rose, & Kasworm, 2017; p. 400). Thus, this grand idea conceives of a learning cities-for-all, learner-leadership (LCLL) model.

Scott Learning Cities-For-All Aspects

Scott (2015) provides a simplified illustration to all of the model components (Figure 2) through a relative learning cities-for-all map of the domains of education and
learning and the qualities of experiential and lifelong. At the intermediate level, these domains and qualities form the four adult-educational concepts of experiential education, lifelong education, experiential learning, and lifelong learning, respectively. At an advanced level, these quadrants illustrate four aspects, namely academic, economic, politic, and iconic. For learning cities to become *civitas cognitionis* or the citizenship of learning, the academic offers knowledge through institutions, and the economic provides wealth through organizations. Similarly, the politic encourages unity through communities and iconic inspires freedom through learning itself.

At the basic level of the learning cities-for-all map relates to specific roles and responsibilities between cities and citizens, as well as practical implementations that can be accomplished within learning cities. Although these specific details are not shown in the map illustration (Figure 2: *Learning Cities-for-All Map*) their distinctions are noted previously (Table 1: *Learning Cities-for-All Learnership (LCLL) Model Components*).

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**Figure 2. Learning Cities-for-All Map (Scott, 2015)**

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**Citizen and Cities Roles/Responsibilities**

The relationship or engagement between cities and citizens requires both parties to execute respective roles and responsibilities. All citizens as well as all people are
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considered learners. According to the model and map, these roles/ responsibilities of learners and cities are informed by each distinctive adult-educational concept.

**Learner as Student and City as Institution**

In corresponding to the experiential education (and academic aspect), learners or learner-citizens take on the role/responsibility of student. This view of student exists within a formal instructional structure, such as schools, colleges, and universities. However, another important view of student, comes from the Latin verb “studere” which means “to be eager for, keen on, or enthusiastic about” (Traupman, 1995), that moves the student beyond the traditional disciplinary pupil. The city takes on the role/responsibility of institution that provides the formal instructional structure for students and the formal setting for broad domain of education. Nonformal and informal settings of education can also be supported.

**Learner as Worker and City as Workplace**

In alignment with lifelong education (and economic aspect), learners take on the role/responsibility of worker. White (1997) makes a distinction between two types of work, either “autonomous” or “heteronomous;” but claims that despite the majority of work in society being heteronomous, education can play a critical role in teaching workers to be more autonomous; thus placing work in its proper place alongside other essential aspects of living (Yorks & Scott, 2014). This view of the worker incorporates both education and economic growth. In comparison, the city as workplace takes on the role/responsibility of lifelong education that transforms businesses and organizations through what the Faure Report (1972) describes as the master concept of education. Because of the economic aspect, related economic principles such as labor, land, and capital are featured, with significant attention given to human capital (Becker, 1964), economics of education (Toutkoushian & Paulsen, 2016), and the wealth (Smith, 1776) of nations and societies.

**Learner as Member and City as Community**

In association with experiential learning (and politic aspect), learners take on the role/responsibility of member in the community, while the city role/responsibility represents the community itself. While the Weil and McGill (1989) villages framework offer a general introduction to different views of experiential learning, Fenwick (2000) advances contemporary perspectives for the adult continuing education field to also consider (namely, constructivist, psychoanalytic, situative, critical-cultural, and enactivist).

In the context of learning cities, a partnership between members and communities may go beyond psychoanalysis or constructivist views of reflection, but instead
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more situated views or systems-theory (enactivist) perspectives. The critical-cultural perspective of resistance may align more to lifelong education than experiential learning for its vital attention to social change and political action. The *politic* aspect of this learning cities-for-all model should not be confused with the political. For the politic represents all people, versus the political divides them. Unity is the ultimate ideal within the learning cities model with a “unity of action and purpose” that contribute to community and collective understanding (Wong, 2002; p. 6).

**Learner as Leader and City as Learning**

In orientation with lifelong learning (and the iconic aspect) learners take on the role/responsibility as leaders, and cities as learning. Like all the other arrangements placed upon adult-educational concepts (and model aspects), these roles and responsibilities are equally distinctive and builds upon each other at the same time. The learners as leaders mean taking charge of their learning with authenticity. Aspin and Chapman (2012) move the concept of lifelong learning toward its own philosophy where individuals are “autonomous agents, with complete freedom of judgment and choice” in how to make decisions about the problems they face; and about the time and resources that learners spend (p. 29). The city as learning expand lifelong learning as both economic and humanistic (Regmi, 2017). Regmi (2017) states that a humanistic form of lifelong learning “takes education and learning as a fundamental right for all individuals” (p. 679). The salient point about learners as leaders is the advancement of freedom. Freedom here is not seen as a truth, or the freedom from power, but instead as a “mechanism of power” (expressed by Foucault) whereby learners can truthfully govern themselves within the relations of power (Nicoll & Fejes, 2008; p. 6).

Cities as learning, most notably learning cities, Scott (2015) advises will require a new movement of engagement. For Scott, this engagement recognizes learning cities for “being flexible, adaptable, nourishing, and replenishing” (p. 92) and humanizes learning cities (Hibbler & Scott, 2015) as resourceful places for leisure, health, and well-being.

**Practical Implementations**

Given the theoretical considerations of learning cities, this subsection addresses some of the more practical implementations of the learning cities-for-all learnership (LCLL) model as a result. Based upon prior research regarding community engagement in higher education institutions, specifically U.S. land-grant institutions (Scott, 2012), practical examples of such engagement related to mostly educational programs.
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However, learning cities require more than programs or pedagogies of education but more of a comprehensive combination of resources.

For example, Cappon and Laughlin (2013) describe the Composite Learning Index (CLI, 2010) by the Canadian Council on Learning that measured lifelong learning and its progress for five years. What is important to note is that the CLI was based upon the Delors Report (1996) pillars of education (and learning). The Canadian Council operationalized the concept of lifelong learning into distinctive measures corresponding to each pillar. While the learning cities-for-all model distinguishes these four pillars (namely, learning to do, know, live together, and be) across other adult-educational concepts to be applied in the U.S., the Canadian Council’s fundamental work should be noted within North America overall.

The following will describe examples within a LCLL model. These examples draw upon the CLI and other measurements advanced by organizations and countries in Europe and Asia, which have been more explicit concerning the topic learning cities and its continuing research and scholarship. For example, UNESCO (2015) provide key features of learning cities through conditions, blocks, and wider benefits for building a learning city that include political will and commitment, governance and participation, and mobilization and utilization for many varieties of learning (i.e., inclusive, revitalized, effective, modern, technological, enhanced quality, and vibrant culture). While the pillars may provide a blueprint for implementing research across metropolitan areas, the measures and data available will depend upon many other contexts, but most especially a united effort between public administrations, private organizations, and the public community.

Programs and Projects

Programs and projects in the learning cities-for-all model concentrates on the academic aspect and experiential education. Examples are service-learning projects (Furco, 1996), or access initiative programs to educational institutions. Local plans that offer credit and credentials in formal institutions are the central focus with the overall goal of acquiring knowledge among the entire citizenry. Some adult educators describe this area for its formal setting, which is acceptable for structural and educational outcomes.

Policies and provisions. Policies and provisions in the learning cities-for-all model concentrates on the economic aspect and lifelong education. Examples relate to workforce policies, employment, resource allocations, equity, and the development of human capital and economic development. OECD has been a world-wide leader in viewing learning cities from an economic perspective that informs countries and administrations how to connect education-and-learning to wealth. Because there is a focus on policy design, implementation, funding, and investments, this area will
be a contentious and political arena (Bolman & Deal, 1984/2016), but essential for social change and advocacy.

**Partnerships and Pacts**

Partnerships and pacts in the LCLL model concentrate on the politic aspect and experiential learning. As stated earlier, the politic is not political, but rather a focus on the people showing good judgment in dealing with others, also coming together, and uniting with a shared vision for their civil society. Based upon the pillar of learning to live together, examples include volunteerism, participation in social and club organizations, and forming alliances across cultures. These kinds of partnerships also relate to the field of adult continuing education forming interdisciplinary coalitions for the purpose of advancing the community and its members.

**Pursuits and Pioneers**

Pursuits and pioneers in the learning cities-for-all model concentrates on the iconic aspect and lifelong learning in a targeted way. Based upon the pillar of learning to be, this aspect, at its basic level, involves forms of expression and identity such as art, music, sports, and other aesthetic, authentic, and creative expressions. The measurement of lifelong learning comes in the development and culmination from other model aspects with a keen focus on autonomy, ownership, and freedom. From the academic aspect, knowledge develops into wisdom; from the economic aspect, wealth progresses onto entrepreneurship; from the politic aspect, unity advances into legacy.

A vital reason that this aspect is called iconic, is not to invite the iconoclasts to attack the any cherished beliefs about learning cities. But rather to highlight the image of learning that lasts throughout many lifetimes and generations. One of the historical descriptions of lifelong learning is that it spans across a lifetime, from cradle-to-grave. This iconic aspect invites the idea that lifelong learning lasts even beyond that. As icons are remembered way past their lifetime, so should lifelong learning: where its legacy continues in the lives of others and seen in the cities where they have lived. In this may, we can measure lifelong learning through public monuments, tributes, and memorials of pioneers, innovators, and trendsetters who have followed their pursuits, hopefully remembered and supported by their public.

Although at present, there are no formally established learning cities in America, hopefully these examples of practical implementation serve as ways to measure American cities and citizens coming together through education and learning.
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FINAL THOUGHTS ABOUT LEARNING CITIES AND ITS POTENTIAL CONNECTION TO SMART CITIES

Despite the possible benefits of learning cities and smart cities, there are many scholars that have kept these two initiatives separate and distant from each other. This chapter also intends to describe the fundamental purposes of learning cities and invite a bridge across the divide toward the ideal of smart cities. For both cities’ initiatives indicate the complementary connection between lifelong learning and technology that can improve our overall quality of life. While smart cities may rely heavily on technology, infrastructure, and organizational systems, learning cities focuses on the communication, interaction, and learning that occurs within them. Although people and communities provide such learning, they must occur not just in homes and places of work, but in the entire society that requires effective governance as well as successful policy implementation.

For example, one of the signature hallmarks of lifelong learning is an ideal of a learning society. A more accurate history of the learning cities initiative comes from this global discussion. In the 1970s in the advent of computers and advanced technology, many people thought that machines would do our work for us, thus affording everyone more leisure time to learn even more. This would be the premise of a “learning society.” This turned out to be a utopian view that still have not been actualized (Holford & Jarvis, 2000).

Holford and Jarvis (2000) offer four distinct ways at looking at the concept of the learning society: 1) as a futuristic/utopian society; 2) as a reflexive society; 3) as a consumer society; and 4) as the more planned society. It goes without saying that different views about a learning society will have an increasing effect, not only on the role of learning cities and lifelong learning, but also of technology and smart cities. For arguably a learning city is the learning example and the smart city is the technology example in the role of a learning society. Over time, as cities become reliable sources for lifelong learning and technology, their results would redefine the learning society for a new age. But in these current times, more progress can be made to connect lifelong learning to technology through comparing their concepts, objectives, and potential outcomes.

As a result, this chapter intends to explore the connection of learning cities and smart cities through the ideal of the learning society. Each concept of the learning society can help to connect these initiatives, exploring key characteristics. This exploration can lead to further practices, policies, partnerships, and other pursuits in learning cities and smart cities; or simply lifelong learning and technology.
REFERENCES


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