Existing Measures of Community Vitality

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Introduction

According to the Urban Institute, the idea of developing a set of broad-based, socially-oriented, community-level indicators and a system for their ongoing measurement and analysis can be traced back to the 1960s (Kingsley, 1998). However, at the time the limitations and costs of technology were largely prohibitive for the community level approach. Not until the 1990s, when advances in computer hardware, GIS software, automated administrative data availability, and institutional capacity had reached the point of making such tracking systems viable, did they begin to be developed at the scale first anticipated in the 60s (Ibid, 1998).

There are several drivers that have motivated the development of community-oriented tracking systems. Often mentioned are the shortcomings of conventional measures that rely solely on material and economic data, chief among them is the much critiqued GDP.

> *The dogmas of the last 30 years have been discredited. The unwavering pursuit of economic growth – embodied in the overwhelming focus on Gross Domestic Product (GDP) – has left over a billion people in dire poverty, and has not notably improved the well-being of those who were already rich, nor even provided us with economic stability. Instead it has brought us straight to the cliff edge of rapidly diminishing natural resources and unpredictable climate change. No wonder that people are desperately seeking an alternative vision to guide our societies* (Abdallah et al. 2009, p. 3).

In the last twenty years, many efforts have been made to develop alternative measures that go beyond one-dimensional analysis and capture the complexity and diversity of factors that determine the shape of our communities. In addition, the sustainable development imperative (Dale, 2001) adds another new dimension to the need for more integrative indicators that

reconcile the ecological, social and economic imperatives of a community and yet, are concrete measurements.

This paper seeks to answer questions about the purpose, function, and efficacy of existing tools and measures related to community vitality. In order to do so, 17 different systems have been selected and reviewed; they are referenced in the following sections as examples. These systems represent several different scales of focus, from neighborhoods to the entire planet, reflecting the generally broad interpretation of the definition of a "community".

How Do They Work?

Aggregate/ Non-aggregate

There is a notable difference between aggregate and non-aggregate indicators. As implied, a non-aggregate indicator includes a series of measures and reports on a corresponding series of results. An aggregate indicator takes a series of measures and combines them to report a single result. In doing so, aggregate indicators assign weighted values to data, and, therefore, are sometimes critiqued for being more subjective. Within aggregate indicators there are two main sub-categories: composite and common unit aggregates, the later is usually quantified in the form of money (Sharpe, 1999).

The majority of the indexes reviewed here are non-aggregate and are typically composed of 50 to 100+ indicators that fall into several broad domain categories. For example, the Quality of Life Reporting System measures changes in hundreds of variables that fit within ten domains. This type of index system is considered more useful for policy making as "*a single indicator of well-being…cannot identify the underperforming aspects of well-being*" (Ibid, p. 45).

Of the aggregate indicators reviewed, The Canadian Index of Wellbeing, The Composite Learning Index, the Happy Planet Index, the Global Peace Index, and Resilience Rankings are examples of composite rankings and the Genuine Progress Indicator an example that uses dollar units. The Composite Learning Index, as an example, uses a wide range of learning indicators that are combined to provide individual scores for "learning conditions that foster social and economic well-being" for 4,500 communities across Canada. In doing so it provides an efficient tool for comparing performance in different communities and conveys valuable information about how learning in all aspects of life is critical to the success of individuals, communities and the country as a whole. The Genuine Progress Indicator, based on the concept of 'real cost accounting', uses a capital accounting framework that includes the monetary value of "human, social, and natural capital" along with conventional measures of manufactured and financial capital.[1]

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[1] http://www.gpiatlantic.org/gpi.htm

Bottom-Up/Top-Down

A further distinction can be made between indicators that are developed bottom-up (community-driven) and those that are top-down (indicator-driven). Both have their advantages as explained by Sharpe (1999, p. 47).

> *A great advantage of a top-down approach is consistency in the estimation of an index across space. A citizen's bottom-up index may be useful to track trends over time within a community, but if other communities have not adopted the same variables and methodology, comparisons will not be possible. Advantages of the bottom-up approach include the sense of ownership the community may take in the index if the community develops it itself and, of course, the grassroots understanding of community that can be reflected in the index.*

A bottom-up example, the Neighbourhood Vitality Index, engages local residents in determining neighbourhood priorities and setting collective goals. According to their experience, "*measuring neighbourhoods cannot be done with a simple tally of data. Neighbourhood indicators require an approach to analysis that is informed by the intersection of data and an interpretation based on the specific neighbourhood context*" (Meagher, n.d.).

Vital Signs, which reports on sixteen major cities across Canada as well as the nation as a whole, engages their communities in the process by allowing them to choose measures for tracking as well as select, on a rotating basis, the 'snap-shot' indicators which are used to monitor progress in their annual report cards. For example, "in 2007 the indicator used to describe housing conditions was the ratio of average residential prices to median family income. In 2008, the housing indicator focused on the rental vacancy rate of a 2-bedroom unit." They also depend on community volunteers that "act as a reference group to provide report card grades which track positive shifts or identify community gaps or challenges." Additionally, Vital Signs uses a more top-down approach for national level measures which capture "shared concerns-issues that are important to all Canadians" (Community Foundations of Canada, 2011).

Quantitative/Qualitative

Indexes also vary in the type of data they use. In a recent scan of ten community oriented index systems, Weaver finds that "there are generally two types of measurements: quantitative or numeric (hard data) and qualitative or stories (soft data). Most of the approaches collect and report data using both approaches. Qualitative data is often viewed as being less rigorous and by combining it with quantitative data you get a more comprehensive picture of what is occurring in a community" (Weaver, 2010, p. 4).

The Community Vitality Initiative (CVI) uses qualitative data in the form of 'perceptual indicators'. In their work they have found that "perceptions, even though they do not provide a "scientifically accurate" analysis, offer an excellent starting point for reflection and action by communities" (CIEL, 2011). The CVI uses a 95 question survey that asks community members to rate everything from employment to environmental health, from support for the arts to safety on the streets, from public transit to prenatal care (Ibid, 2011). It uses a sample size of only 20-80 individuals from a cross-section of the social, cultural, political, business, and recreational aspects of the community.

The Quality of Life Project relies on both qualitative and quantitative data to assess the largest cities in New Zealand. The qualitative data is obtained from their biennial Quality of Life surveys which measure perceptions of health and wellbeing, their community, crime and safety, education and work, the environment, culture and identity (Dudding & Hastings, 2011). This is combined with quantitative data from secondary sources.

What Do They To Tell?

Much of what the indicators are trying to tell is dependent on what they choose to measure. Most of the indicator systems reviewed have a broad range of measurement categories that aim to provide a holistic view. Indicators reviewed that use a narrower focus include the Happy Planet Index, the Housing and Transportation Affordability Index, and the Global Peace Index. Compared to the broader measure of community vitality, these indexes tell more directed stories about communities. The Happy Planet Index tells the 'ecological efficiency' with which human well-being is achieved by multiplying average lifetime by life satisfaction and dividing by ecological footprint. The Transportation Affordability Index tells the 'true cost' of housing by adding average housing costs with average transportation costs then dividing by average income. The Global Peace Index tells the statistical relationship between various factors and peace and further evaluates the economic value of peace.

In his review of community measuring, Whaley found that of ten approaches, all included poverty and/or poverty rate in terms of income, employment security and access to housing as important indicators of wellbeing (Whaley & Weaver, 2010). This was the only group of indicators common to all of them. As for the others, over half of the approaches included indicators for community safety/freedom from crime; access to education; physical health; social support/social cohesion; engagement of citizens; health of the natural environment; culture, community vibrancy, diversity and access to arts and recreation; and, economic health of the community (business growth and opportunity as well as access to a variety of goods and services) (Ibid, 2010).

In his survey of social indicators, Land (1999, cited in Sharpe 1999, p.8) identified three uses for social indicators:

1. monitoring, the desire to monitor change over time in a broad range of social phenomena beyond traditional economic indicators, which, as previously mentioned,

has been a key principle motivating the social indicators movement;
2. social reporting for public enlightenment, which reflects the belief that social indicators represented a form of social reporting that could lead to public enlightenment on social issues and in time action to deal with these issues, and;
3. social forecasting to forecast trends in social conditions and turning points.

The distinction between these objectives is not always clear or exclusive in the indicators. The majority of the indexes and tools reviewed seem to reflect both objectives 1 and 2. The Quality of Life Reporting System, for example, which is managed by the Canadian Federation of Municipalities, measures, monitors, and reports on social, economic and environmental trends in Canada's largest cities and communities and is used by municipal governments as a data source for planning and policies. The Community Accounts online data retrieval system for Newfoundland and Labrador is a publicly available comprehensive source of community, regional, and provincial data that would normally not be readily available, too costly to obtain, or too time consuming to retrieve and compile. Both of these examples provide monitoring as well as social reporting.

In some cases the monitoring and reporting is tied to specific project funding objectives, which gets beyond social reporting for public enlightenment to ensure action is taken to address the issues identified. The Vital Signs reports, managed by the Community Foundations of Canada (CFC), provide valuable public information but are also used to increase the effectiveness of CFC grant making as well as to better inform donors about issues and opportunities. Vibrant Communities is also used to help direct funding. Once a community has set targets, based on the numbers of families and households impacted in a reporting period, the McConnell Family Foundation provides targeted funding to help them succeed. Communities also receive coaching, learning and evaluation support. The targets also allow the achievements of the program itself to be quantified and monitored.

The third identified use, forecasting, is less prevalent in the indicators reviewed. The UK's Resilience Rankings is a clear case of forecasting whereby research provides insight into the ability of a local area to 'bounce back', taking into account factors beyond simply business strength and economic growth. It includes observed economic resilience measures, providing an indication of how the local economy fared during the downturn and forecasts for the outlook over the short and medium term.

In other cases, tools that provide monitoring and reporting also produce evidence for advancing an argument about connections between and causation of certain factors. Such cases do not necessarily state the objective of forecasting but do offer evidence that could be used to predict outcomes, in effect providing the basis for making forecasts.

For example, The Happy Planet Index, which calculates the ecological efficiency with which well-being is achieved, claims that it:

> *confirms that the countries where people enjoy the happiest and healthiest lives are mostly richer developed countries, it shows the unsustainable ecological price we pay. It also reveals some notable exceptions – less wealthy countries, with significantly smaller ecological footprints per head, having high levels of life expectancy and life satisfaction. In other words, it shows that a good life is possible without costing the Earth* (Abdallah et al, 2009, p.3).

The index demonstrates evidence of two paths that achieve similar results, high life expectancy and life satisfaction, and is, therefore, able to forecast which factors lead to the alternative, more ecologically sustainable route.

How Do They Visualize Results?

Below is a summary list of the different tools and methods used to visually convey community indicator results.

Quality of life New Zealand: online dynamic graphs allow viewers to change variables according to drop down menu options to compare results between cities and age group

Vital Signs: Web based graphs for national data

Community Vitality Initiative: simple graphs and lists are used in reports for the community members. A power point presentation is also prepared for the community

Vibrant Communities: n/a

Community Accounts: online map allows users to select different variables and locations

Genuine Progress Indicator: n/a

Canadian Index of Wellbeing: time graph of domains and composite index vs GDP

Quality of Life Reporting System: n/a

Composite Learning Index: interactive map, case studies, community profiles and reader friendly graphs and tables

Happy Planet Index: interactive maps, interactive graph time series

Global Peace Index: interactive map

Neighbourhood Vitality Index: n/a

Community Indicators Victoria: profiles and data maps, users can choose criteria and

create their own "live reports" which are then available for others to see

Resilience Rankings: n/a

Housing and Transportation Affordability Index: interactive maps

The Legathum Prosperity Index: Interactive web tools including map with country profiles, a country comparison tool, and a "personal prosperiscope" tool for measuring personal prosperity

How Difficult Are They To Establish?

For the most part, it is not easy to determine what was involved in establishing the indicator systems reviewed. In some cases an indication is given about the process behind developing and conducting the measurement. For example, to develop the CVI, the Center for Innovative and Entrepreneurial Leadership (CIEL) "spent over a year researching, building and testing the CVI, synthesizing more than 60 studies on community wellness, health and quality of life and employing stakeholders and experts from across Canada" (CIEL, 2011).

Obviously, the scale and level of detail will impact the process. At the neighbourhood level, data availability can be a problem:

> *not all the data useful to neighbourhood vitality measurement is gathered in comprehensive ways and on a neighbourhood by neighbourhood basis. Particularly in Canada, data is often suppressed for smaller areas, and sometimes for entire census tracts, making information on critical subjects like numbers of lone-parent families, multifamily households and mother tongues unavailable at the neighbourhood level. Even for data released, disaggregating data to provide discrete information by ethno-cultural and linguistic background is impossible* (Meagher, n.d, p. 4).

In other examples, however, data availability is less restricting, as was the case for The Genuine Progress Index. The index was developed during extensive year-long consultations with community groups that defined community health and well-being, identified key determinants of community health and well-being, developed a process for selecting priority indicators, and constructed a survey instrument. When it came time to determine where to locate the data needed to respond to the determinants identified, they found that the data was readily available:

> *Statistics Canada has already devised excellent measures…assessing both objective conditions and subjective feelings of well-being, so we had little practical difficulty in matching community concerns and interests with specific questions already contained in Statistics Canada's General Social Surveys (GSS), National Population Health Surveys and Canadian Community Health Survey, Survey of Work Arrangements, the*

> *national volunteer surveys and several other established survey tools* (Coleman, 2005, p. 40).

There are many resources available about indicator systems and guides for their establishment. For example, in a collection of essays commissioned by the Canadian Population Health Initiative, eight experts share their perspective on community health and answer the question.

> *What would and index of healthy communities include*?" *Before an index of healthy communities can be created, a framework must first be developed that clearly identifies the purpose of the index, specifies how it should be used and defines exactly what makes a community healthy*(CPHI, 2005, p.2).

Also, The Center for Innovative and Entrepreneurial Leadership (CIEL) published a guide to community vitality that reflects their work with over fifty communities in four countries and includes their list of universal indicators and sources (Stolte & Metcalfe, 2009). And, The National Neighbourhood Indicators Partnership (NNIP) produced the document, *Building and Operating Neighbourhood Indicator Systems: A Guidebook* (Kingsley, 1999), which is the basis of the Neighbourhood Vitality Index. Furthermore, websites like Wikiprogress.org and the Compendium of Sustainable Development Indicator Initiatives [2] offer many more resources and models.

How Successful Have They Been?

There are multiple benefits that arise from these indicators. Their rate of success depends on their objectives, which vary. As discussed, for some indicators, contributing to public information and knowledge is the primary objective. Success in this regard is sometimes quantified by using the number of site visits, downloads or population covered. For example, Community Accounts has been viewed over 325,000 times by almost 40,000 users and The Happy Planet Index, which measures 143 countries representing 99% of the world's population, has been downloaded in 185 countries.

In Sharpe's survey of indicators he observes that: "these indexes have been very successful in capturing the public's attention. While there are potential dangers in the index approach, this development is, overall, an extremely healthy one. While knowledge is not a sufficient condition for social progress, it is a necessary one" *(*Sharpe, 1999, p. 50).

The Genuine Progress Indicator has lead to the creation of eighty reports relating to the indicator and revealed surprising facts, for example, that volunteering in Nova Scotia adds $1.9 Billion to the provincial economy, that transportation is the greatest financial burden for households and that obesity and poor diet cost the province $250 Million each year. Their

[2] The compendium is a directory of indicators from around the world and is available at http://www.iisd.org/measure/compendium/

website claims that this data has succeeded in influencing Statistics Canada and the Nova Scotia government (GPI Atlantic, 2011).

For other indicators, affecting change is the primary objective and, therefore, measuring success can be more challenging. Vibrant Communities, as part of its process, measures the impacts of its indicators in three main areas:

- depth of Impact;
- systems change, new community resources or structures, new or adjusted policies or improved delivery of existing government programs and new working relationships in the community; and,
- community Capacity, community stories and reflections are part of the evaluation.

They are, therefore, able to objectively report on their successes, which include 322,698 poverty reducing benefits to 170,903 households in Canada, 164 poverty reducing initiatives completed or in progress, $19.5 Million invested, 1690 organizations partnering, and 35 substantive government policy changes (Tamarak, 2010).

In spite of these successes, community measures for sustainable community development and measures of vitality that integrate ecological, social and economic imperatives remain illusive.

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