Community Technology Center Impact Analysis Framework

Communities Connect Network

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Introduction

Evaluating the impact of community technology efforts is a difficult task. The challenges of measuring outcomes and impact stem from the fact that the impact of community technology is often embedded in other programs and processes. The work of community technology centers supports and enables a myriad of social programs in areas such as education, workforce development, civic engagement, community building, housing, healthcare, and financial sustainability among others. To adequately understand the impact of community technology centers we must understand their work in the context of larger policy issues.

Isolating the role of community technology in terms of broader social impact is complex. Our approach has been to examine current approaches to measuring outcomes and impacts and build a framework for information community technology providers. The following describes a process by which a Community Technology Center (CTC) may assess, quantify and communicate their impact in the context of policy issues.

Background: Community Connect Network Research

The development of the Community Technology Impact Analysis Framework was informed by research work conducted by the University of Washington's Information School's research team. This work centered on evaluating the impact of CTCs in the state of Washington. The first step in the research process, conducted by the University of Washington team, was to conduct a review of existing CTC outcome data. This work revealed very little data existed to assess CTC's impact.

Based on the finding that little outcome data exists, the University of Washington's research team conducted an analysis of the literature to assess best practices in reporting outcome data for CTCs. This systematic literature review uncovered a rich web of relationships between the work of CTCs and the work of other social service programs. These relationships could best be understood by mapping policy issues and stakeholders to show the interrelationships visually. This process of understanding CTCs work within the context of the communities they serve and the policy issues impacted by their work was an important step toward conceptualizing a way of assessing the impact of CTCs. The result of this work were conceptual maps of the relationships between CTCs' work and policy issues as well as the identification of a host of outcome indicators derived by understanding these relationships. Important policy issues identified included employment and the economy, academic skills and literacy, social inclusion and personal growth, independence, access to information and resources, and communication. The process is represented as **context analysis** in the process model which will be discussed in the next section.

After developing a rich understanding of the relationships between CTCs work and policy issues the UW research team developed a logic model to describe the processes by which CTCs impact individuals, families, and communities. The logic model describes the work of CTCs as creating the capacity for other programs to deliver services. As depicted in figure 1, This logic model examines the aggregated work of CTCs as building capacity within the social service infrastructure. It demonstrates the relationships between program logic models and the capacity building role of CTCs at a systemic level. This **situated approach** informed the development of the second set of steps in the process model described in the following section.

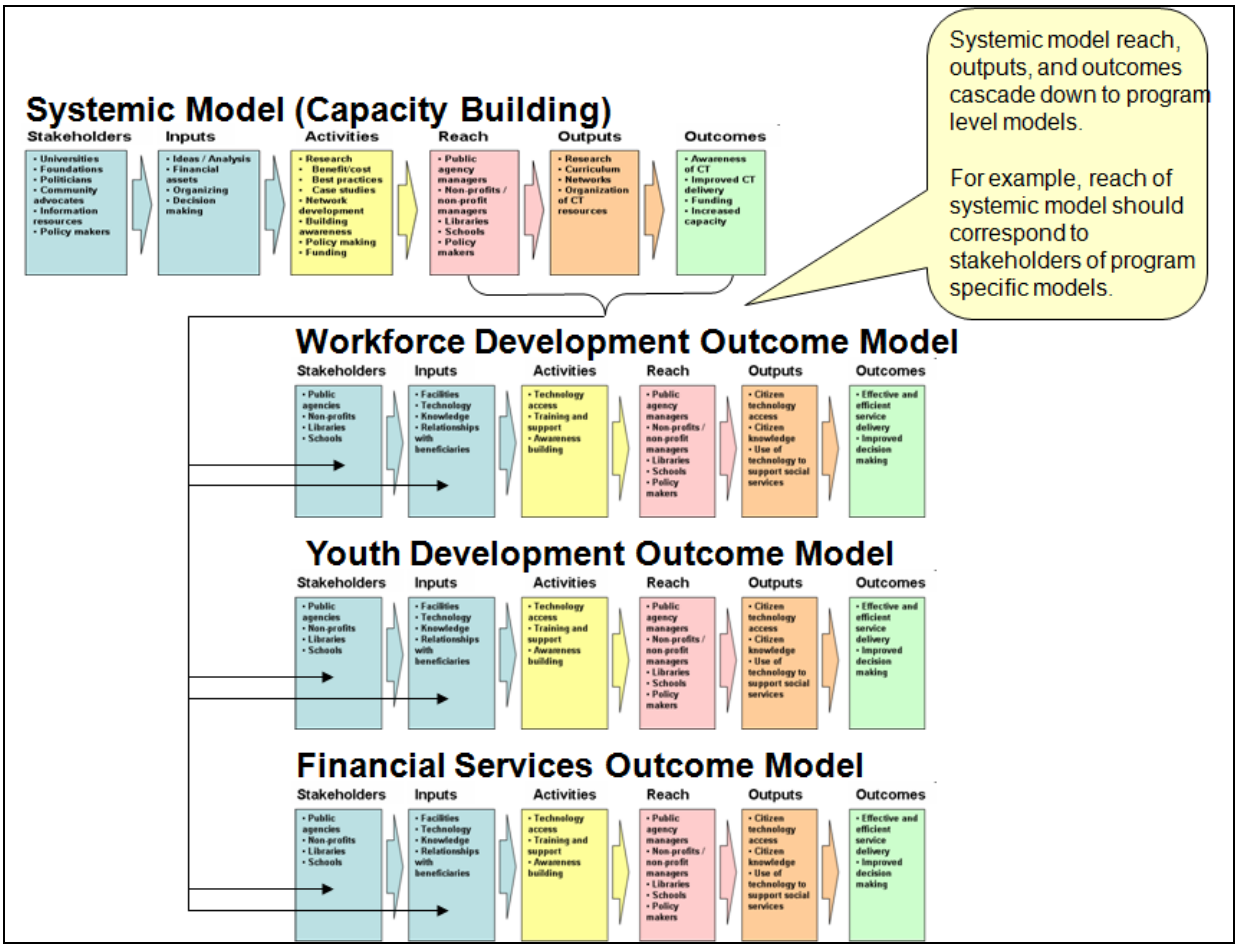

Figure 1

The conceptual approach to assessing CTC impact in relation to policy issues and social programs existing in the community served as an important development toward creating a model for capturing and quantifying CTCs work. This approach looked at CTCs role in communities as a whole rather than the work of an individual CTC. However, the process for situating the work of an individual CTC within the context of the policy and program work in their community may follow a similar approach.

Community Technology Impact Measurement Process Model

The following process model describes a method for quantifying and reporting impact measures at an individual CTC level. It is based on an approach derived from the work of the University of Washington's research team assessing the overall impact of CTCs in the aggregate.

The first set of steps in the process, **context mapping**, involves a holistic view of the context in which the CTC is operating. The purpose of this set of steps is to loosely define the landscape and context. This process is implemented by identifying and defining policy issues and stakeholder organizations. The second set of steps is focused on the development of a **situated logic model.** The situated logic model approach moves the analysis from identifying context toward putting it in terms that is commonly understood toward describing the work of nonprofit and social sector organizations. Once a situated logic model has been constructed that develops a logical mapping of an organization's outcomes to the processes and systems within the context they are working the next set of steps calls for **outcome measurement**. The last step of the process, **validation and reflection**, requires an organization to validate their work and reflect on their practice. This last series of steps is meant to inform continued work throughout the process so that work the process continues in an iterative fashion.

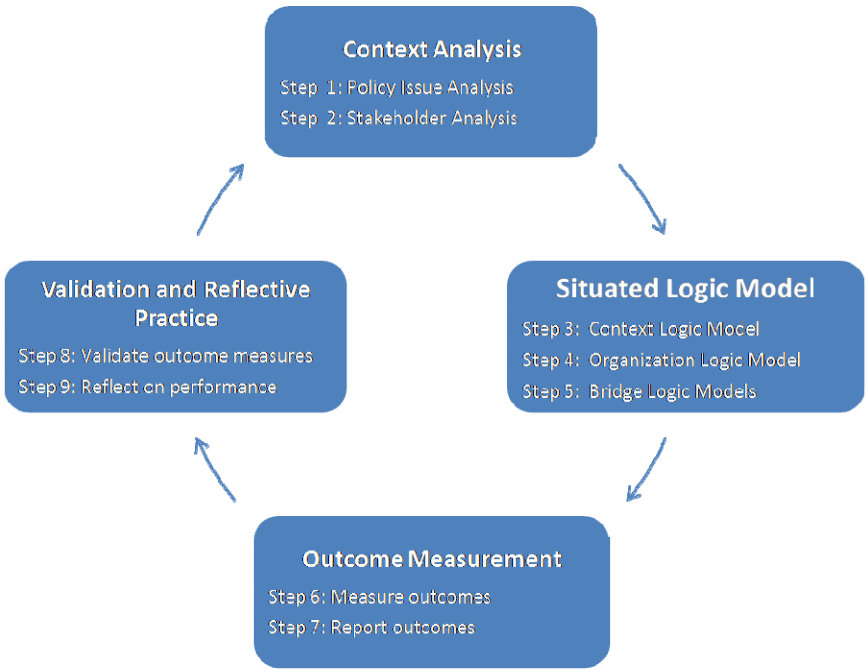

Figure 2 – Community Technology Impact Measurement Process Model

The following represents a more detailed description of each set of steps.

1) Context Mapping

The context of a CTC's work may be defined in terms of 1) policy issues, and 2) the stakeholders associated with these policy issues. Policy issues often associated with the work of CTCs include education, reduction of poverty, improved quality of life, civic engagement and other widely accepted objectives for a healthy society. These are often defined very broadly at a macro level. The quantification of progress toward achieving outcomes associated with these larger macro issues are often described by indicators and outcome measures. There are many different factors that contribute toward achieving these outcomes and it is difficult to isolate the role or contribution of a single factor within the complex processes that determine these outcomes.

Context analysis requires that we understand the policy issues defining the context and the stakeholders associated with these policy issues. We have developed a process for identifying and defining aspects of the policy issues and stakeholders that may inform the development of logic models.

Step 1: Policy Issue Analysis

Analyzing policy issues requires identifying major issues confronting the community in which the CTC works. These policy issues should be defined in terms relevant to CTC's work in the community. Worksheet 1 has been designed to support the collection of this data and analysis of the collected data in a way that will support the development of a situated logic model.

Step 2: Stakeholder Analysis

Stakeholder analysis calls for CTCs to identify stakeholders, collect data about their action, perceptions, behaviors, experiences and thoughts in relation to their services. In this step individuals, groups, organizations, and institutions are identified that affect outcomes associated with the policy issues identified in step 1. These entities are often referred to as stakeholders. For the purpose of this exercise it is important to consider stakeholders as part of the larger processes associated with achieving the policy outcomes and not only organizations that have a relationship with the CTC. A CTC's work may affect an organization that it does not have a formal or informal relationship with. Worksheet 2 has been designed to support the collection of data and the analysis of this data. This process is based on stakeholder analysis as described by Burgoyne (1994).

2) Situated Logic Model Development

Logic models are widely used throughout the non-profit and public sectors as a means to identify a program or organization's measurable outcomes. The logic model provides a framework for

describing the relationship between resources, activities, processes and outcomes. Common uses of logic models do not allow for the explanation of outcomes within the context of larger systems. The situated logic model approach allows an organization to describe their work within the context of a policy issue or stakeholder's work.

Patton (2002), describes a logic model is a framework for understanding what an organization does, how it does it and what results. This type of model is usually represented visually as a linear process that shows a linkage between program inputs, activities, processes, outputs, outcomes and impact. Logic models provide a clear way for describing the activity of a program as it relates to outcomes and impact. These models are often used to help programs develop metrics or outcomes that they can report out to organizations. Logic models are largely descriptive leaving the assumptions that form the basis for linkages between the different elements of the logic model unexplained.

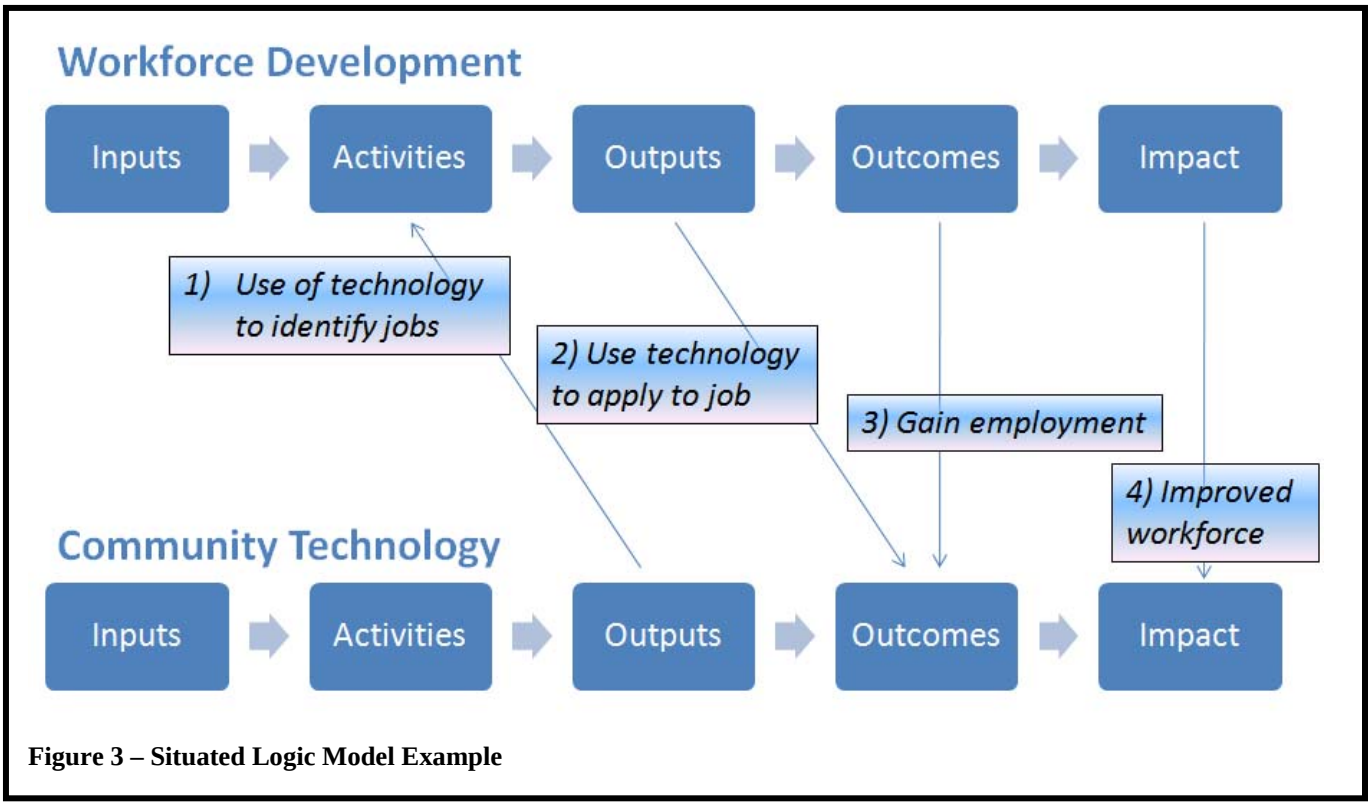

Figure 3 – Situated Logic Model Example

The situated evaluation approach is demonstrated in figure 1. This diagram uses the example of workforce development to show the relationship between community technology and workforce development. In this diagram the evaluation of community technology is situated within the context of workforce development. This approach recognizes that community technology outputs such as providing access to technology is the basis for activities within a workforce development program. In this example, online job training is an activity that workforce development programs uses to train workers. This activity is enabled by providing access and

technology skills through community technology centers. Therefore, an output of community technology centers is to provide access and the skills necessary to benefit from online job training. The result of this activity may be that participants in the program qualify for a new set of jobs. The workforce development output may then be considered an outcome for community technology centers. The workforce development program outcome of placing a participant in a new job may be considered an impact indicator for the Community Technology center. Additionally, aggregated results of placing more qualified workers in the workforce to create an improved workforce, may by proxy, be considered an impact of the community technology center in the community.

Step 3: Develop Issue or Stakeholder logic model

The first step toward building a situated logic model is to understand the context in which you are working. The context may be represented by constructing a logic model of a policy issue or a stakeholder organization. The objective is to create a representation of context that will allow you to determine and define linkages between your organizations activities and the processes defining the context selected to define.

Step 4: Develop CTC Logic Model

The second step in constructing a situated logic model is to define your organizations work in terms of a logic model. This logic model should be developed based on an understanding of the processes that define your work.

Step 5: Bridge Logic Models

Lastly, based on the logic model defining the context of your work and the logic model defining your work as an organization you will be prepared to identify and define the linkages between these two logic models. The linkages that you identify should clearly identify the logic supporting your case for supporting the larger efforts.

3) Outcome Measurement

Once a situated logic model has been constructed, you will be ready to identify the outcome measures and report those measures to the public.

Step 6: Measure outcomes

Based on the linkages established between the context logic model and your program logic model you will be able to identify the most important outcomes to measure. These outcome measures should be grounded within the logic that ties your organizations outcomes to the processes identified in the larger context model developed.

Step 7: Report outcomes

Reporting of the outcome measures should be presented within the framework of the situated logic model. The outcome measures should be described in the context of the larger policy issues addressed and the logic developed that shows the relationships between your programs outcome measures and the processes and objectives of the larger policy issue addressed.

4) Validation and Reflective Practice

Step 8: Validate outcome measures

Once your outcome measures have been defined, measured, and reported you may validate them by re-examining their relationship to the larger context of the policy issue. Validation may entail interviewing stakeholders, engaging in internal dialogue with staff, interviewing clients and other activities directed at challenging the validity of the assumptions when constructing the situated logic model.

Step 9: Reflect on performance

Often times outcome measures are used solely for summative purposes. It is important that your outcome measures are also used to inform your organization,s work. This type of formative approach should allow you to re-evaluate the value of the contributions you are making to the community, examine ways of improving the effectiveness of your organization, and identify ways of improving as an organization. This reflective process should provide the basis for beginning the cycle anew to continue to build the framework for understanding your organization's contribution to the communities you serve and society as a whole.

Conclusion

The described process for measuring the impact of CTCs has been designed to assist community technology organizations better understand and define their contributions in the context of policy issues important to the communities in which they work. This process has been designed as a way to continually define and redefine their role in their communities and to continually adapt toward a changing landscape. By following this process we believe that CTC's value may be better recognized and that their contributions to their community and society as a whole will continue to develop.

References

Burgoyne, J.G. (1994). Stakeholder Analysis. In C. Cassell & G. Symon (Eds.), Qualitative Methods in Organizational Research: A Practical Guide (pp. 187-207). New Delhi: Sage.

Patton, M.Q. (2002). Qualitative research and evaluation methods (3 ed.). Thousand Oaks, Calif.: Sage Publications.

Worksheet 1: Policy Issue Mapping

Policy issue mapping exercise is used to identify the major issues facing your community.

(*Sources of information to address the following questions may include CTC Staff, CTC Clients, community members, news media articles, professional literature and academic literature.)*

1) What are important policy issues facing your community? (These policy issues might include general topic areas such as education, crime, housing, civic engagement, employment, financial sustainability).

2) Who are the individuals, groups, and organizations addressing these policy issues in your community.

3) What are some of the important processes used to address these issues? (For example, improved education is addressed by classroom instruction, access to technology, etc.)

4) What are some of the important outcomes associated with these processes. (For example, improved test scores, higher graduation rates, higher college enrollments, etc.)

Policy Issue	Organizations	Processes	Outcomes
Education	• Schools • Online training organizations • Libraries	• Classroom instruction • Self-Study •	• Improved test scores • Graduation rates •
Employment	• Workforce development agencies • Employers	• Job training • Job banks • Skill identification	• Lower unemployment rates • Workforce productivity measures
Housing	• Financial institutions • Individuals	• Housing assistance programs • Financial assistance	• Reduced homelessness • Asset building

Worksheet 2: Stakeholder Analysis

Stakeholder analysis involves identifying stakeholders, their intentions and desires, the processes they engage in, and finally their achieved outcomes.

(*Sources of information to address the following questions may include CTC Staff, CTC Clients, community members, news media articles, professional literature and academic literature.)*

1) Based on the policy issue mapping exercise, who are the major stakeholders regarding the identified policy issues?

2) What are important policy issues facing your community? (These policy issues might include general topic areas such as education, crime, housing, civic engagement, employment, financial sustainability).

3) Who are the individuals, groups, and organizations addressing these policy issues in your community?

4) What are some of the important processes used to address these issues? (For example, improved education is addressed by classroom instruction, access to technology, etc.)

5) What are some of the important outcomes associated with these processes? (For example, improved test scores, higher graduation rates, higher college enrollments, etc.)

Stakeholder	Processes	Outcomes
K-12 Schools	• Classroom instruction • Online curricula	• Improved student achievement • Attendance
Higher Ed Schools	• Classroom • Learning tools • Online research	• Skills acquisition • Graduation
Workforce Development Programs	• Training programs • Build job databases • Collaborate with industry	• Place workers • Help workers develop new skills • Information provided to community regarding job opportunities