



Community Economic Development:

A Systems Thinking Approach

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Everything is interconnected, or as an economist would say, everything is endogenous.

- ❑ Post WWII the tendency was to be narrowly focused, mostly on recruiting manufacturing firms: “shoot anything that flies, claim anything that lands” (Mississippi Balance Agriculture with Industry (BAWI) Act)
- ❑ 1960s-1970s a more “holistic approach” was adopted (environmental movement, civil rights, etc.)
- ❑ 1980s-1990s swing back to more focused efforts (holistic approaches were just too unmanageable)
- ❑ 2000s-today swinging back to holistic via “systems thinking” but more focused on economic opportunities.

Its impossible to work on the whole puzzle at once, you need to focus on parts but keep the whole puzzle in mind.



A little historical background (continued):

The 1980s-1990s saw a return to the more narrow focus on jobs and other community elements took a back seat. Why? Too many moving pieces with the holistic approach.

Starting in the 2000s up to today there is a movement back to a holistic approach because of advances in approaches in “systems thinking”.



“Systems thinking” focuses on how the elements of the system are interconnect and influence each other.

According to systems thinking, system behavior results from the effects of reinforcing and balancing processes. A reinforcing process leads to the increase of some system component. If reinforcement is unchecked by a balancing process, it eventually leads to collapse. A balancing process is one that tends to maintain equilibrium in a particular system. Attention to feedback is an essential component of system thinking.



Hard System: Operates by a set of given rules that can be quantified and modelled. Think climate modeling or modeling of a fisheries. Computing power has opened the doors.

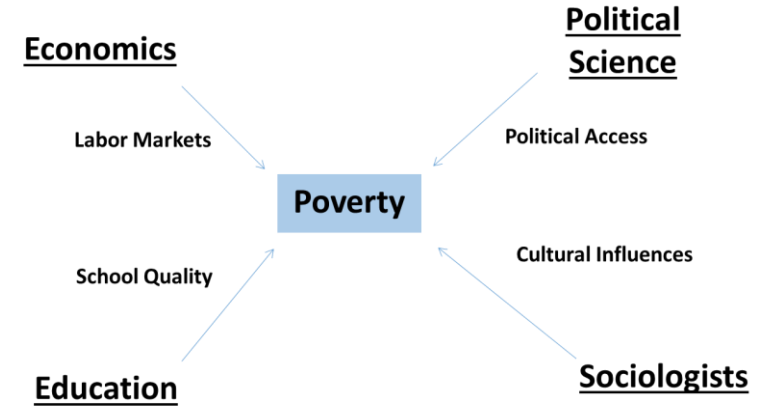
Soft System: For systems that cannot easily be quantified, especially those involving people holding multiple and conflicting frames of reference.

Evolutionary Systems: Soft systems that are constantly changing.



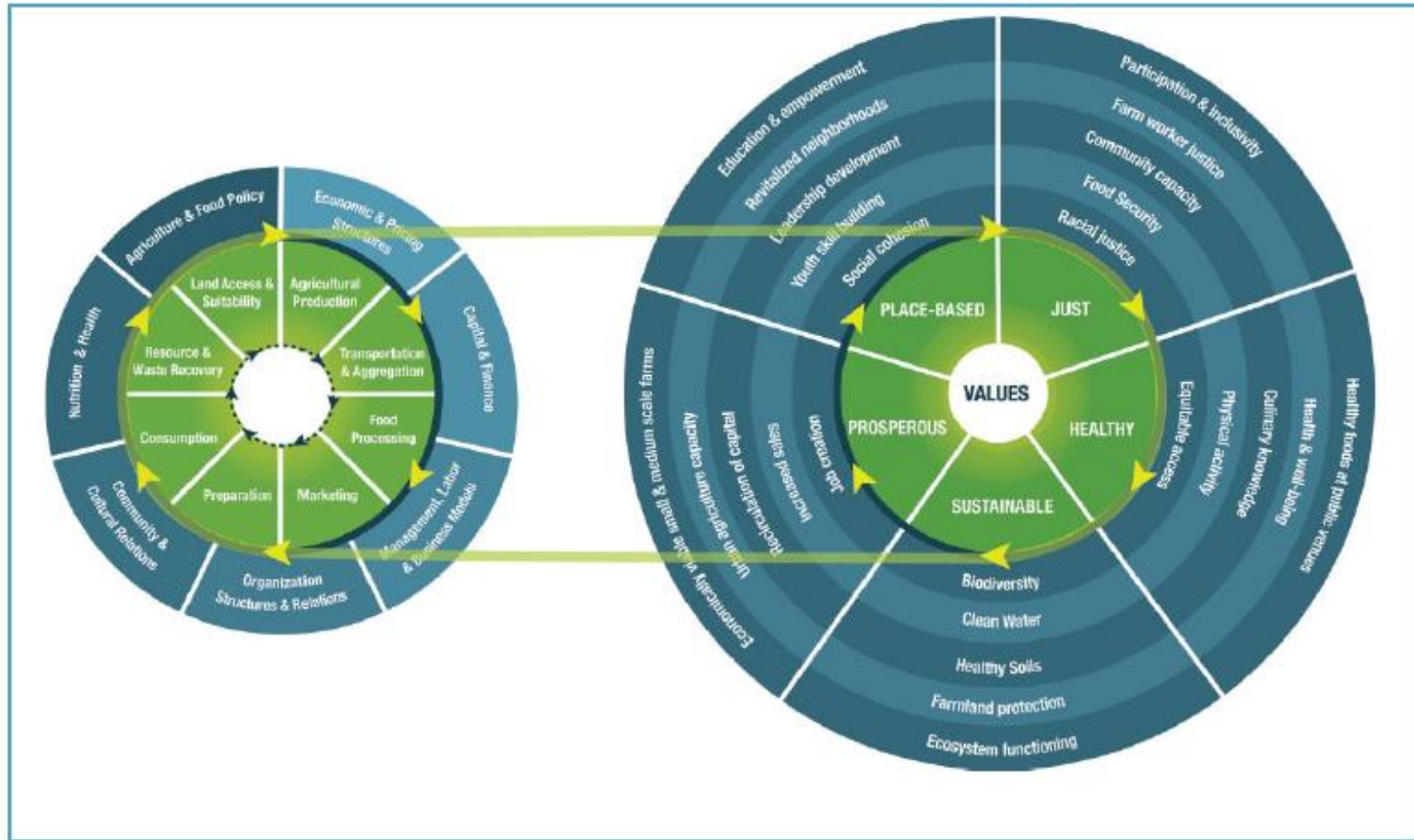
Community Economic Development is a truly interdisciplinary, in a crude sense, this is a systems thinking approach.

But one needs to “come at it” from a disciplinary angle because our systems thinking approaches are not sufficiently developed.



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Figure 1.4: Community Food System Framework by Activity, Environment and Macro-Forces⁸



How practical are these in practice or application within a community setting?

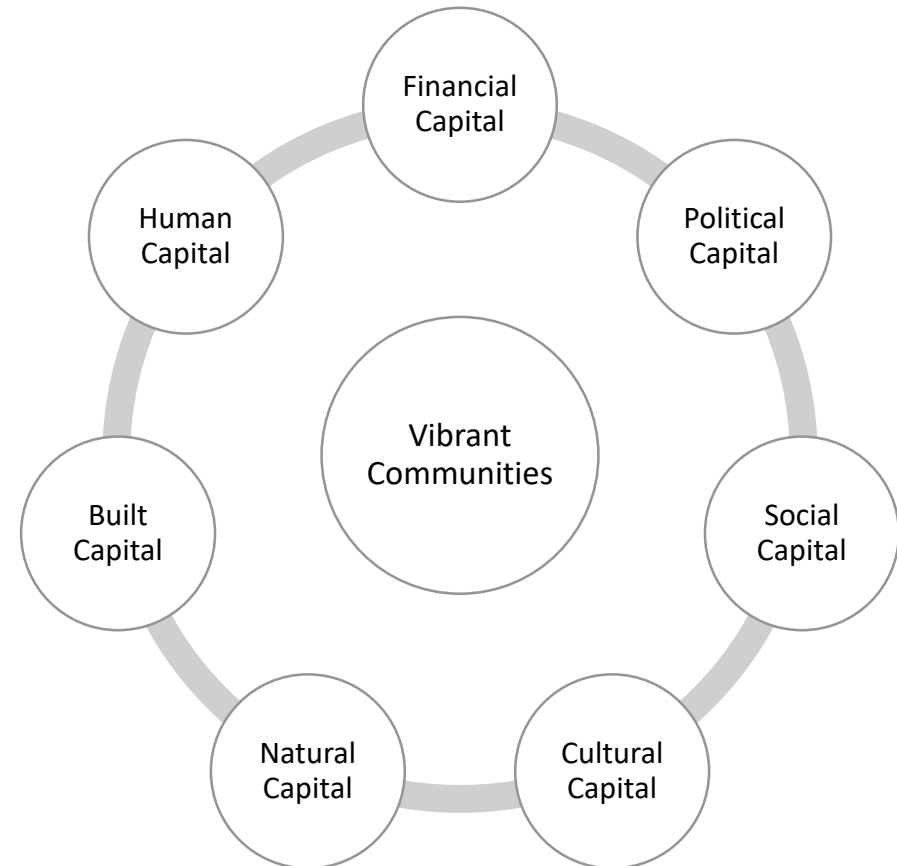
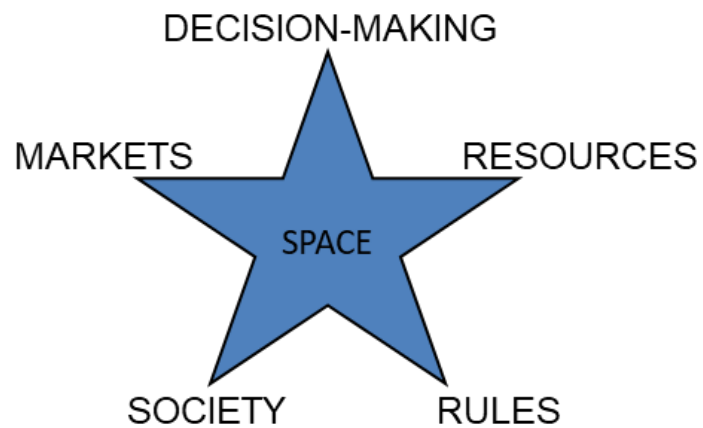
Too many moving parts?

Trade-off between reflecting the complexity of a system and the practical application in practice.

Source: University of Wisconsin-Madison.



Two models finding use in community economic development: Shaffer Star and Floras' Community Capitals.

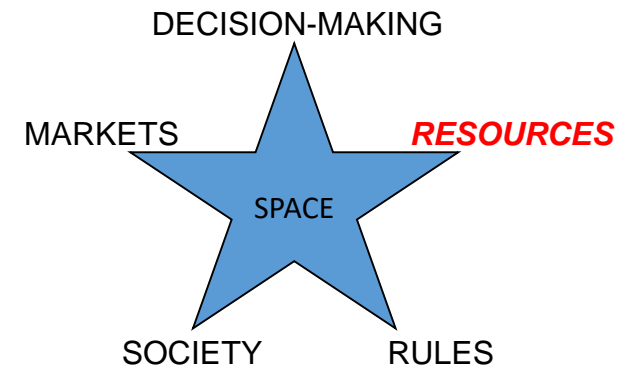


Resources

Resources are the labor, the capital, and the technology that the community uses to produce output, e.g., jobs, income, overall community well being, health-care, education, manufactured goods, and agricultural products.

The term **labor** refers to the people who are actually working, the people who could be working, and the people who are commuting in or out of the community.

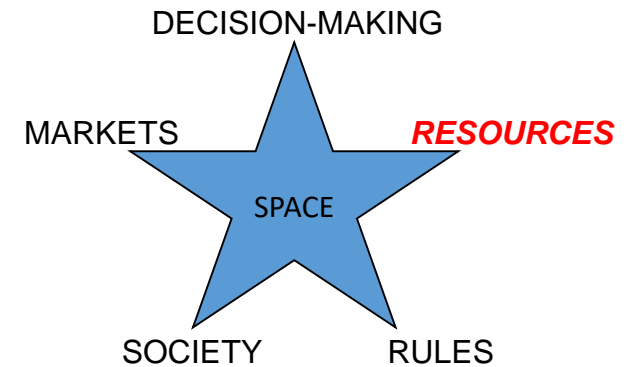
Capital refers to both natural and artificial capital. **Natural capital** includes such things as land, water, forests, minerals, and environmental quality. **Artificial capital** refers to buildings, equipment, roads, fiber optics, and financial capital.



Resources (cont)

Technology is how capital and labor are combined to produce output. It is the industry sector and/or business specific and can be the latest innovation or something that has been around for a long time. It can be **product technology** (i.e., we produce a good/service by combining these inputs), or it can be a **process technology** (i.e., new ways of dealing with workers or doing things).

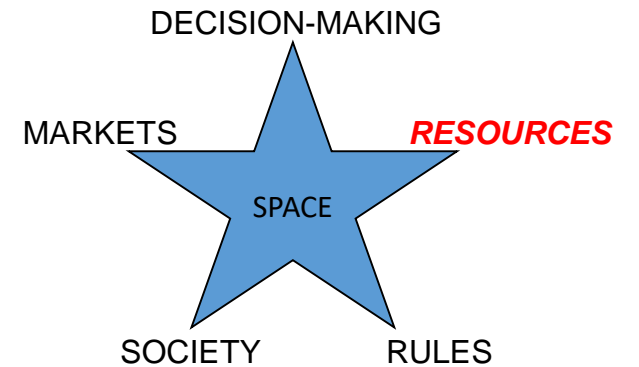
One of the more obvious ways technology shows up is how it impacts the environment, for example, the toxic wastes produced by industry. Can another technology be used that produces fewer or no toxic wastes? Or, how can access to higher speed broadband be used to enhance profits?



Resources (cont)

Many community economic development scholars believe that using existing resources differently is at the core of economic development. The shift from a goods dependent economy to a service producing one has created new opportunities for many communities to use existing resources differently. For many forested regions of Wisconsin the shift from extractive harvesting of trees to non-consumptive recreational uses creates new opportunities for economic development.

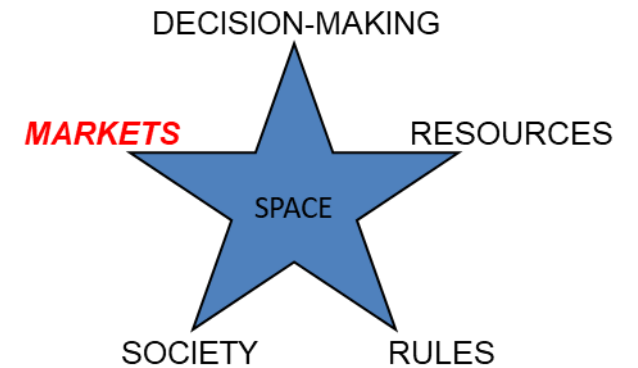
The key is to ask what are the resources, or assets, at the disposal of the community and how can they use them for the greatest economic opportunities?



Markets

The **markets** node refers to the economic forces that drive the allocation of limited resources. In the simplest sense, *we are talking about demand and supply*, (i.e., a capitalist system) the logic behind these market forces, and the rules that apply to demand and supply. Equally important are the distinctions between local and non-local markets.

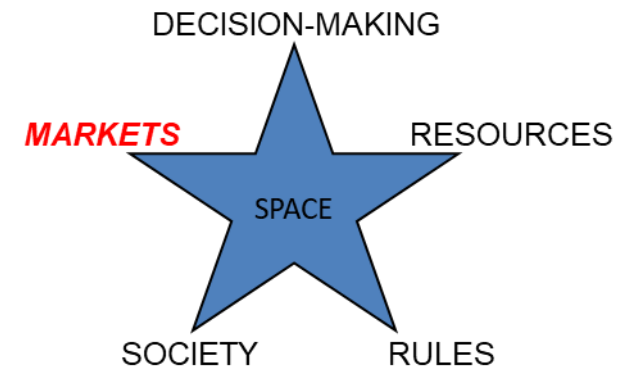
The concept of economic growth and firm location theories come into play. Inter-industry linkages, the idea of agglomeration economies and increasing returns to scale help define market structures and how they react to internal and external shocks. The notion of what economists call externalities also comes into play.



Markets (cont)

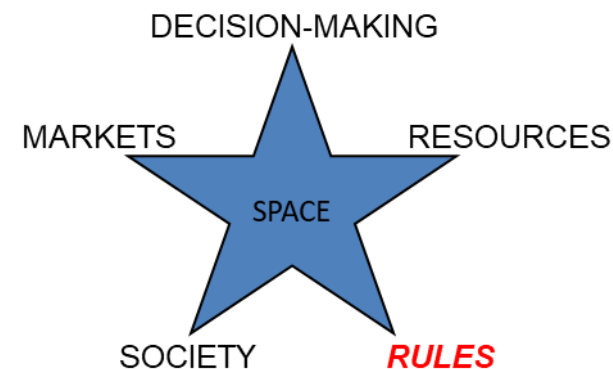
The important element here is an understanding, or at least an appreciation, of the economic forces at play in a capitalist economy. Perhaps most important is the distinction between economic forces that are beyond the control of the community and those forces that the community can influence.

For example, if there is a shift in technology that directly affects a major employer in the community, the community cannot influence the introduction of the new technology but they can work to create an environment that will enable the local employer to adapt that new technology.



Rules

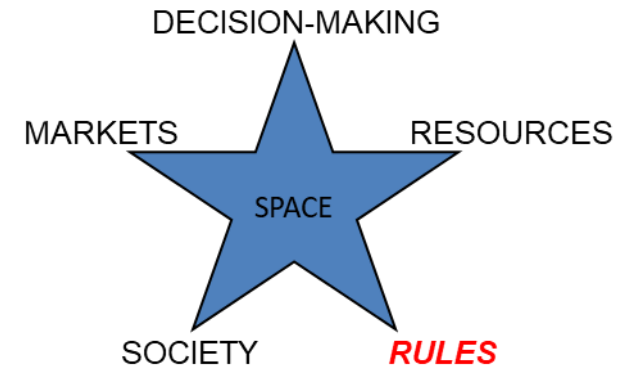
The **rules**, or **institutions**, node of the model is composed of rules that define how the “game is played”. The **rules** are important criteria for community economic development that most generally are not considered. Rules are important because they govern what we can do with markets, resources, and space. A rule that prevents a community's business from selling product to Iran is a rule that limits access to a potential market. The rule that prevents the use of child labor is a rule that governs the types of resources that are available to the community. The recent legislation on telecommunications means that some communities, especially rural communities, now do not have universal access to some elements of broadband. These rules are artificially imposed limits or openings that guide the use of community resources and exploitation of markets.



Rules (cont)

Because these rules are passed by public entities they can be crafted to encourage certain types of economic behavior, such as starting small business, or discourage other, such as pollution. Two issues are important to keep in mind: can the community influence these rules and do these rules hinder economic development?

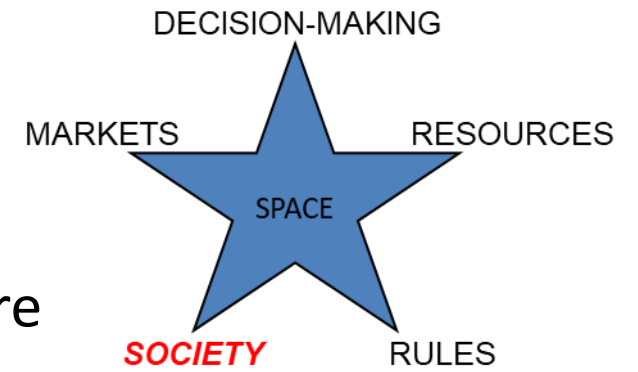
The latter question is often talked about in terms of “**business climate**” with the idea that fewer rules creates a stronger business climate. Research suggests that having rules in place limits uncertainty which is a positive influence on economic development. But at the same time regularly changing the rules creates uncertainty and can hinder economic development. If businesses are uncertain about what the rules might be, they are less likely to make investments, expand and hire workers.



Society

The **society node** of the paradigm is focused on the cultural dynamics of the community. The actions of a community are influenced not only by formal rules that are written and can be altered, but also informal rules that define behavior within the community.

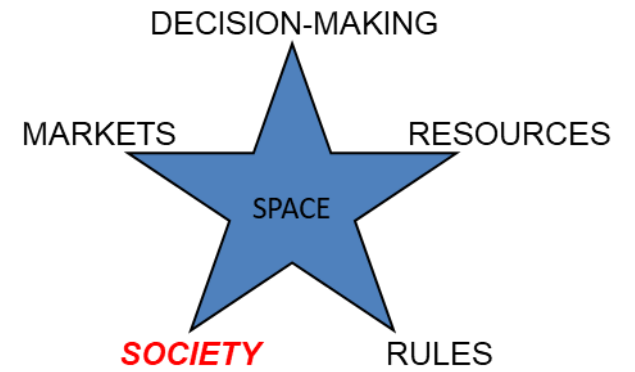
Some communities embrace change, look for challenges and are open to new ideas. Others communities resist change and discourage community members from undertaking new ventures or ways of doing things.



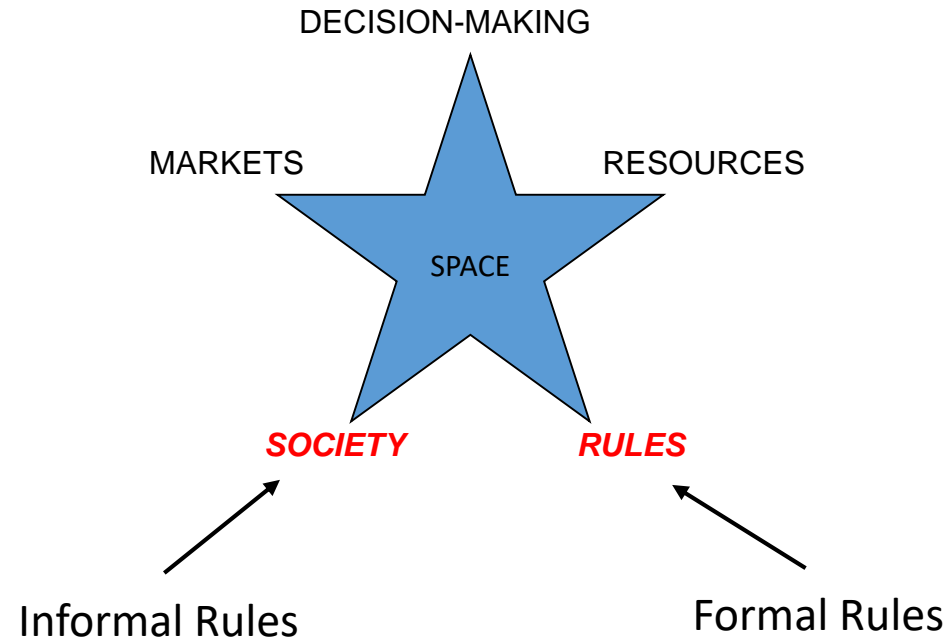
Society (cont)

Some would argue that notions of community development are focused on the **society** node of the Shaffer Star paradigm. Here the focus is on building the ability of the community to come together to address problems and promote positive change.

Indeed, one could argue that community development is akin to the development of **social capital** within the community. In turn, if a minimum level of social capital is required for economic development to proceed, then the practitioner should focus attention on this particular node.



Community Economic Development: A Systems Thinking Approach



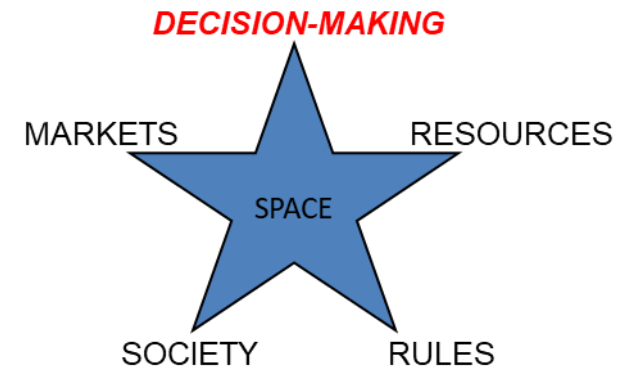
Here we are really talking about the formal and informal rules of the game. Formal rules are laws, statutes, policies. Informal rules are determine acceptable and unacceptable behavior within a community.



Decision-Making

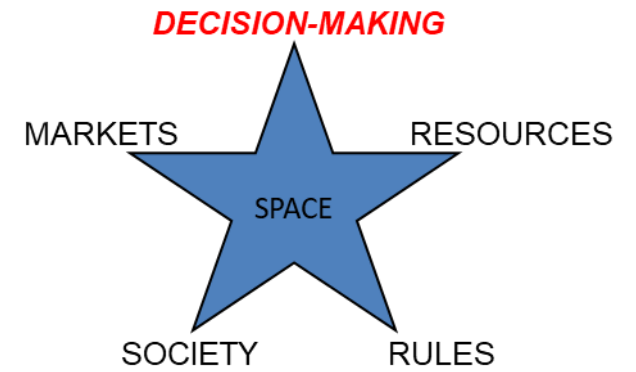
The **decision-making capacity** is the community's ability to distinguish between problems and symptoms. A symptom is a visible sign that there is an underlying problem, but treating the symptom does not correct the problem.

Decision-making translates into how the community goes about setting and implementing policies that affect development. Underlying these policies or programs are community values. When it comes to economics, how are values translated into decision-making? Does the community integrate sound and objective analysis with community perspectives and desires? Does the community involve a broad spectrum of interests or just a select few?



Decision-Making (cont)

An example is that in many communities, community leaders claim there is a “problem” with the lack of affordable housing. This is really the symptom of what could be at least three possible problems. First, the problem could be that the cost of land and houses is far too high. Second, the problem could be that the rules and regulations regarding the building of a house are far too restrictive, thus raising the cost of housing. Or third, the problem could be existing businesses within the community are not paying high enough wages for people to be able to afford to buy a house.



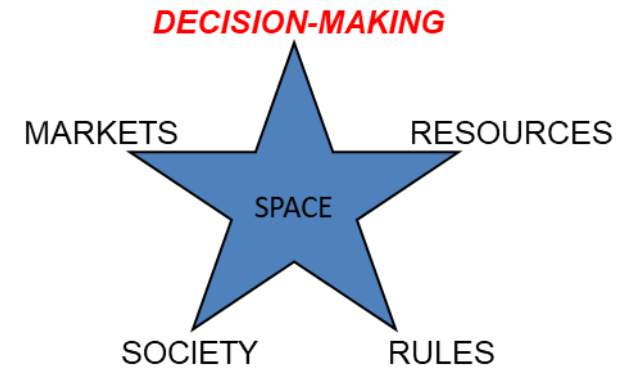
Do we have a quality of job problem or a housing problem?



Decision-Making (cont)

There is a certain level of overlap here with the society node in certain characteristics of **effective leadership**.

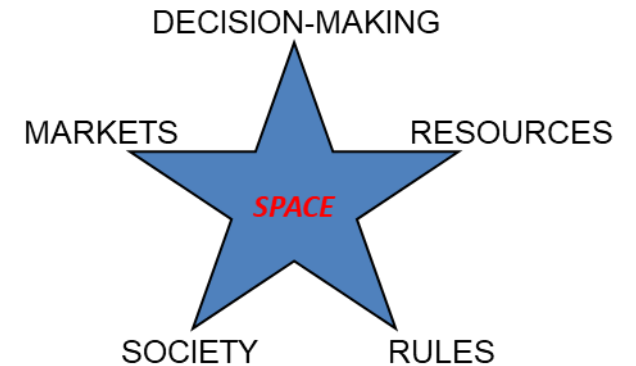
Effective decision-making requires leaders to draw on all the resources at the disposal of the community including a diversity of views. Fostering citizen input and participation is clearly dependent upon the social capital of the community. Effective leadership also requires the ability to learn from past mistake, the depersonalization of politics and the encouragement of citizens taking on leadership roles.



Space and Communities

Space is included in this model because distance is an important element in defining, analyzing and understanding any community. **Communities** are generally defined within some spatial parameters as well as within some form of communication network. Communities are defined in relation to other communities, by location such as the north side of town, or by school attendance districts.

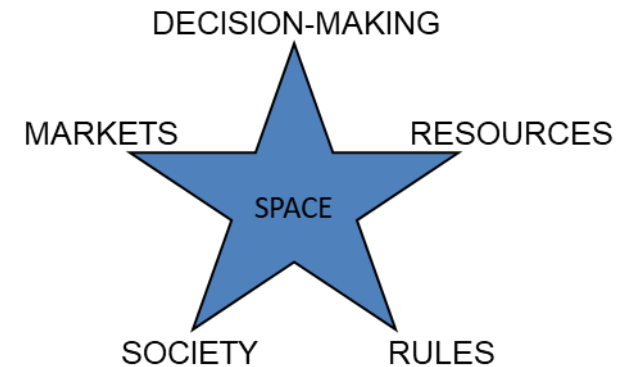
While modern telecommunication technologies (i.e., broadband) have alternated the role of space (distance) in community economic development humans are social beings by nature and face-to-face interactions remain important.



Summary

Community economic development takes a holistic view of the community and as such it can be difficult to “get your head around it”. The Shaffer Star is a framework to help think through and reflect on the issues affecting the community.

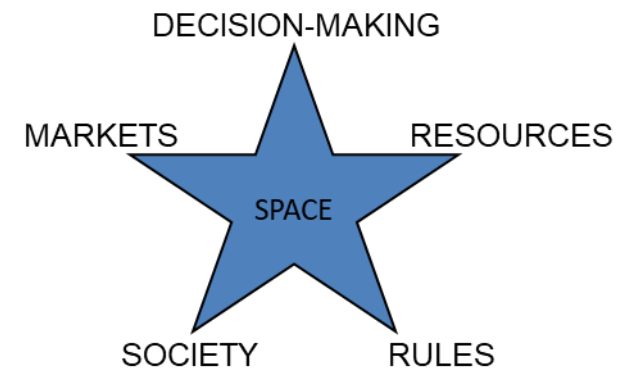
As a community struggles with an issue the practitioner can reflect on the issue within the Shaffer paradigm. But identifying which nodes the issue falls into, or can be excluded from, the practitioner or Educator can be steered to the appropriate educational programs and/or community based strategies.



Summary (cont)

Its impossible to work on the whole puzzle at once, you need to focus on parts but keep the whole puzzle in mind.

Where are the overlaps between the different pieces? How do they influence or interact with each other? Be aware of the different pieces, how they overlap, and how they interact.

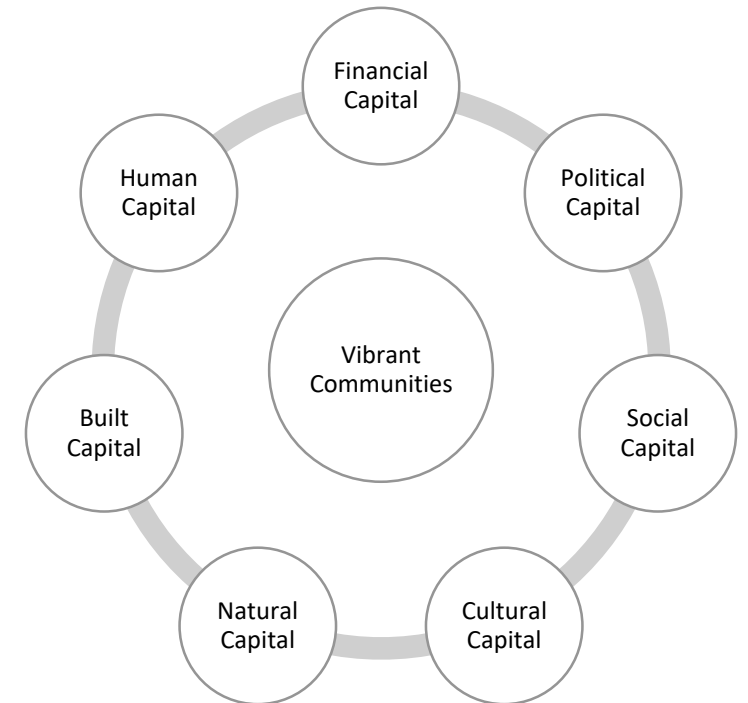


In their studies of rural communities and development Jan and Neil Flora have identified seven types of “capital”, assets or resources that are part of any community.

Think of the local economy in terms of a production function that require certain “inputs” to function. These “inputs” are reflected in the community capitals.

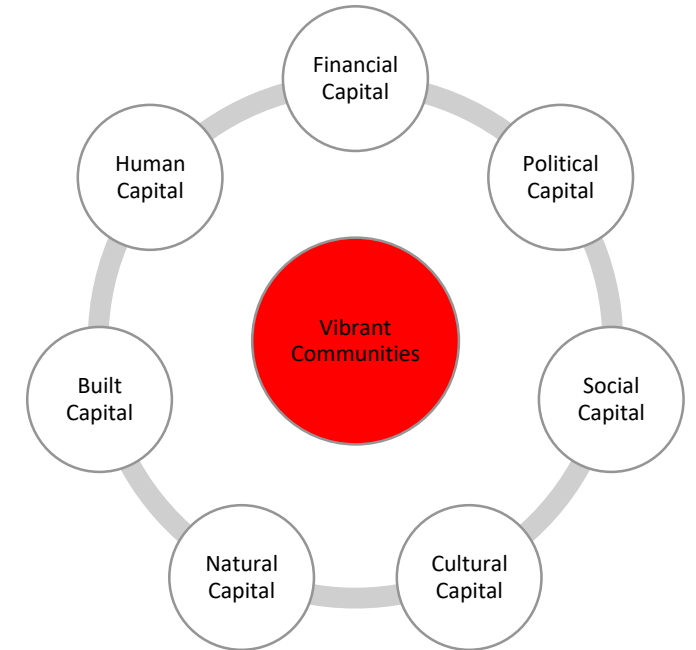
$$\text{output} = f(\text{capitals})$$

By investing in these different types of capital the community can improve its viability both economically and socially.



Vibrant Communities:

- Resilient
- Entrepreneurial
- Innovative
- Forward not backward looking
- Growth or Development?
- Community determined?



Human Capital:

The skills and abilities of people, education, problem solving abilities, critical thinking.

Thinking simply in terms of formal education is too narrow, important, but too narrow. Does one *need* a college education to be “successful”?

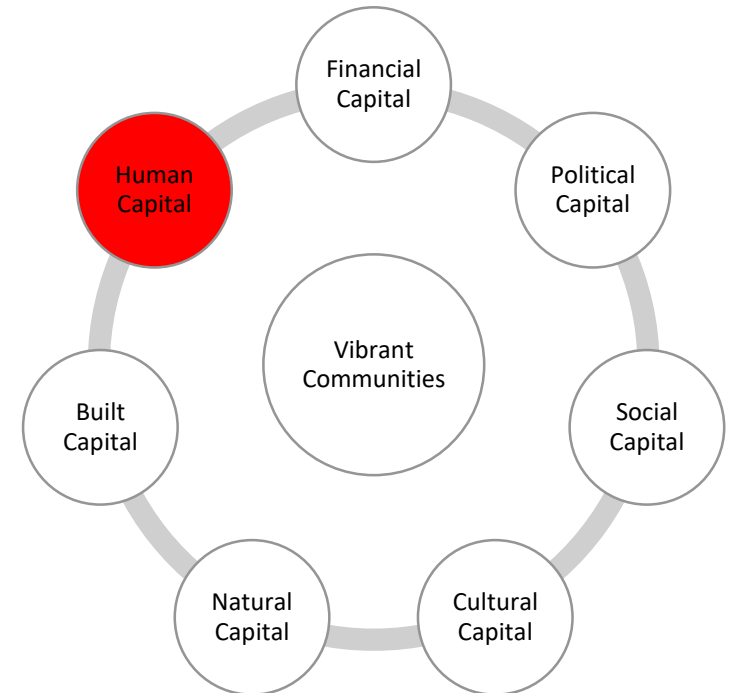
Charles Culpeper, high school drop out, founder of Coke-a-Cola

David Geffen, college drop out, founder of Dreamworks

Evan Williams, college drop out, co-founder of Twitter

Henry Ford, never attended formal school, founder of Ford Motor Company.

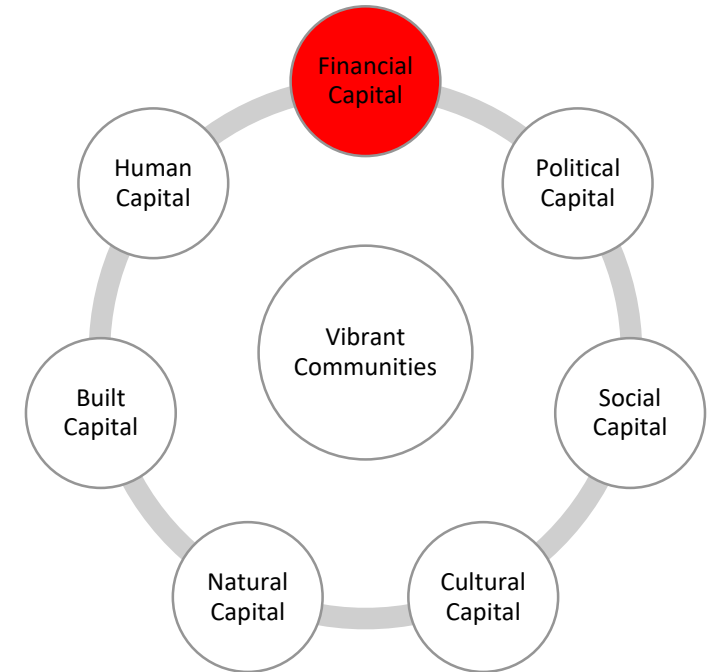
Human capital also addresses leadership’s ability to “lead across differences,” to focus on assets, to be inclusive and participatory, and to be proactive in shaping the future of the community or group.



Financial Capital:

The financial resources available to invest in community capacity building, to underwrite businesses development, to support civic and social entrepreneurship, and to accumulate wealth for future community development.

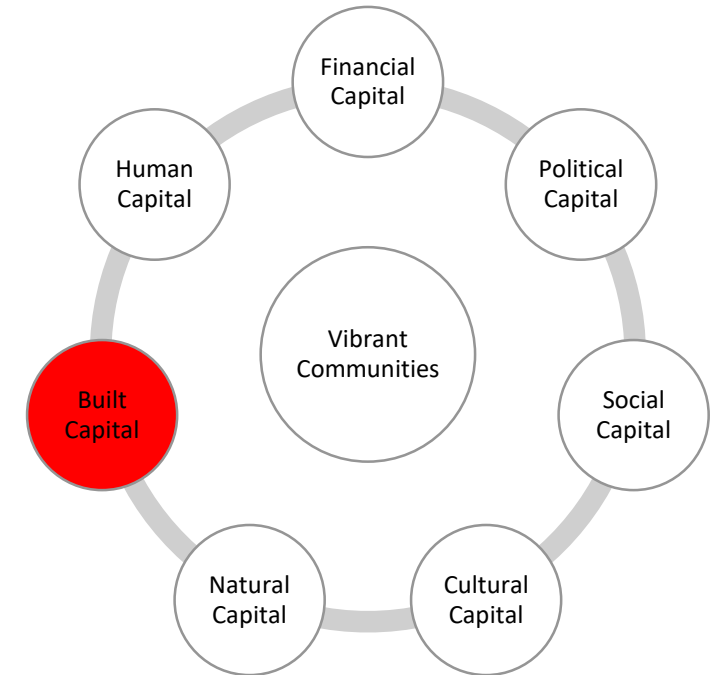
Access to financial capital, or money, is access to the grease that allows the gears of the economy to turn.



Built Capital: The infrastructure that supports the community, such as telecommunications (e.g., broadband), industrial parks, mainstreets, water and sewer systems, roads, etc. This is akin to “public capital” in the Shaffer Star. Many of these capitals fall into the realm of public goods and service. As such, more discussion will focus on I”s it because taxes are too high?”

Built capital is often a focus of community development efforts. Why? Tangible, easy to “see” the investments.

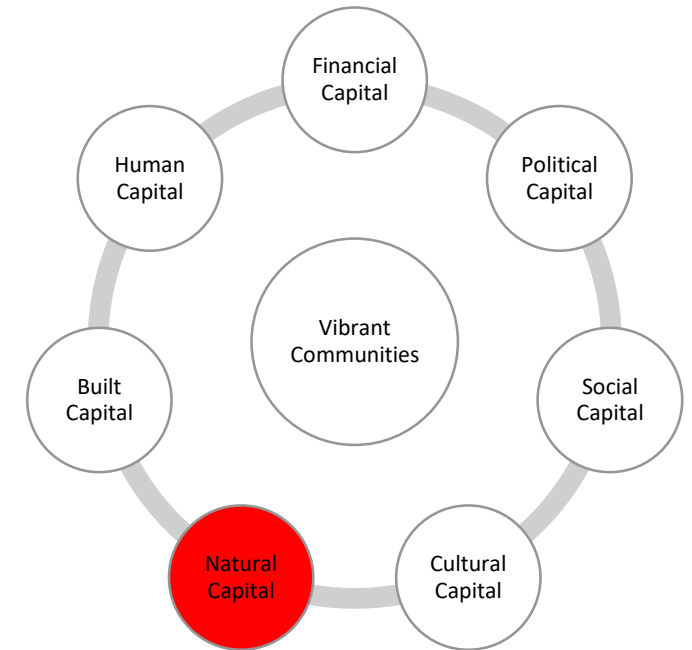
Most studies conclude built capital is necessary but not sufficient for economic growth and development.



Natural Capital:

Those assets that abide in a location, including resources (land), amenities and natural beauty.

Extractive vs Non-Extractive uses of natural capital. Historically focused on extractive (farming, forestry, mining, fishing) but is now shifting more to non-extractive uses (recreation, tourism). Can competing uses lead to conflict within the community?

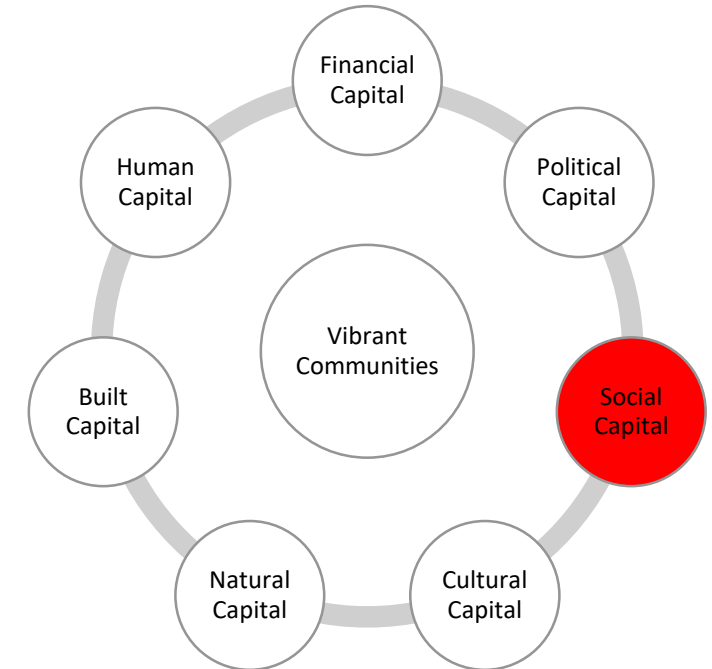


Social Capital

Reflects the connections among people and organizations, networks that enable the flow of information.

Bonding social capital refers to those close ties that build community cohesion.

Bridging social capital involves weak ties that create and maintain bridges among organizations and communities.



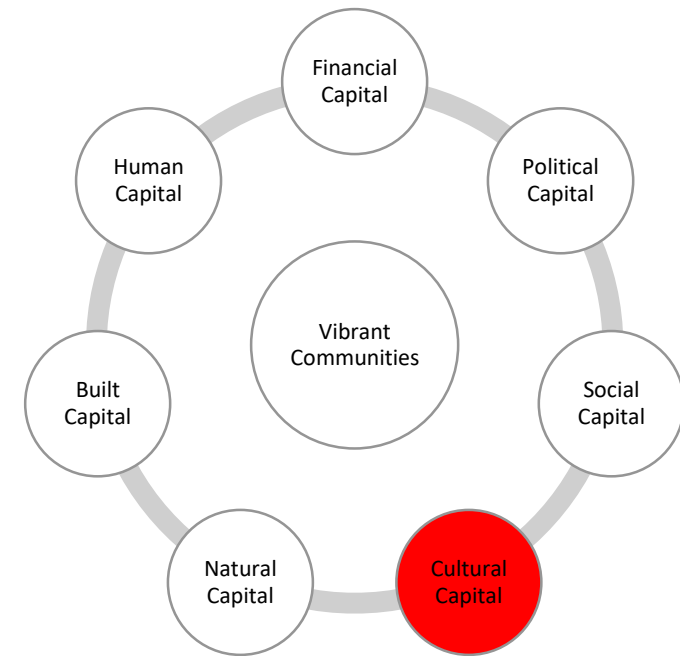
Cultural Capital:

Reflects the way people “know the world” and how to act within it.

Cultural capital includes the dynamics of who we know and feel comfortable with, what heritages are valued.

Cultural capital influences what voices are heard and listened to.

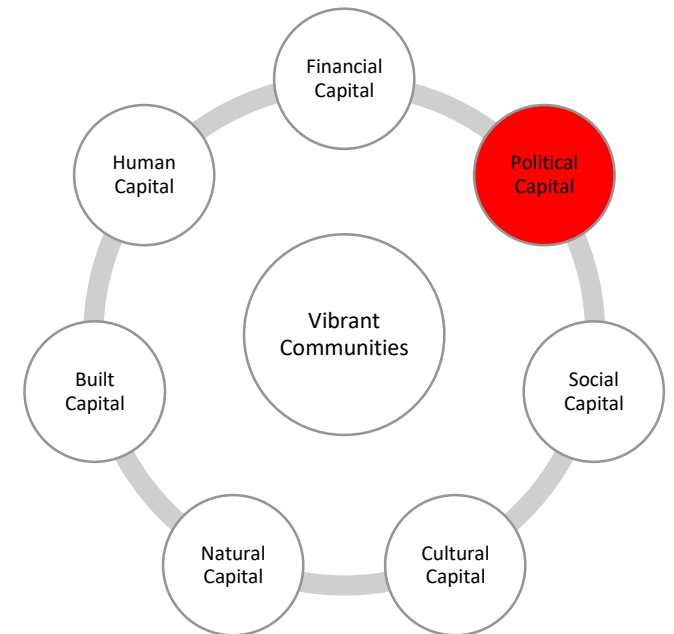
Cultural capital speaks to norms of acceptable behavior.
(Akin to the Society Node of the Shaffer Star.)



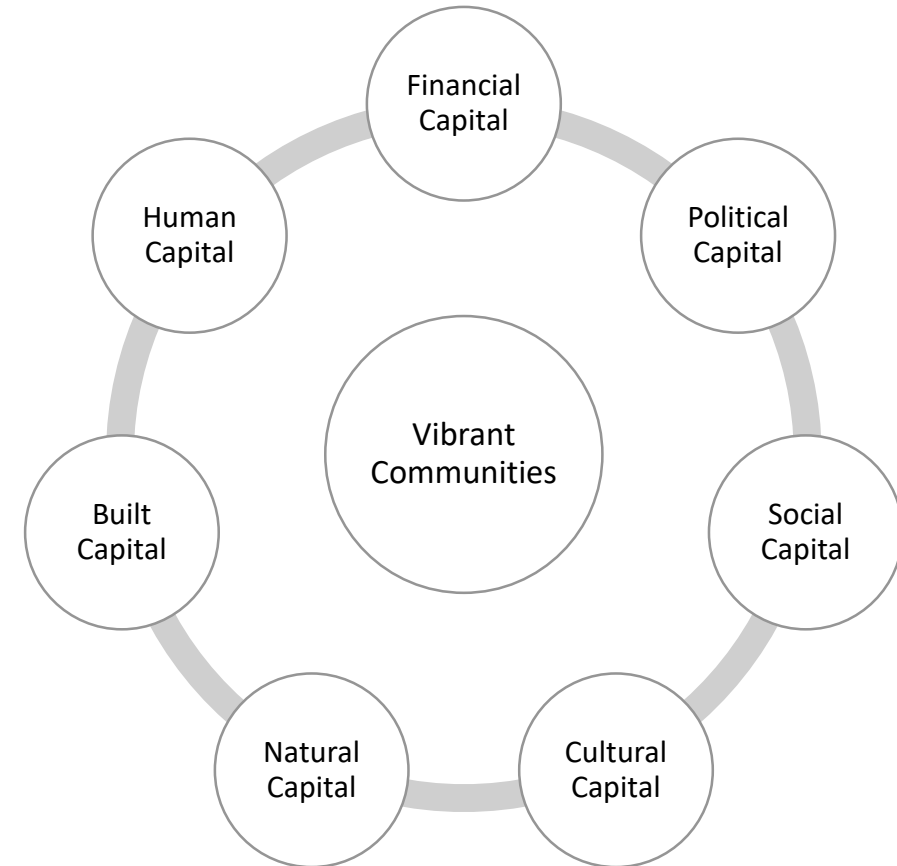
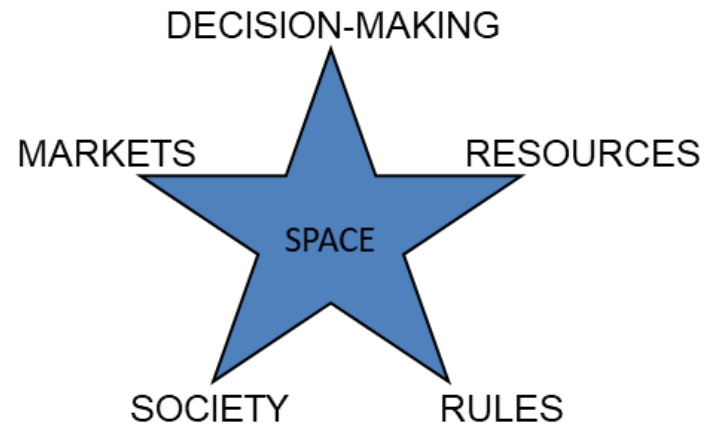
Political Capital:

The ability to influence standards, rules, regulations and their enforcement. It reflects access to power and power brokers, such as access to a local office of a member of Congress, access to local, county, state, or tribal government officials, or leverage with a regional company.

The link to Shaffer's "Decision-Making" node is less clear, but one could argue Political Capital has elements of the ability to dismiss "red herrings", identify underlying causes, and break stalemates and move forward.



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Questions, Comments, Complaints?

