

**Challenging Cognitive Barriers to Rural Revitalization
In an Internet Economy**

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Abstract

Our principal objective in this paper is to review the assumptions driving the “rural decline” agenda in economic and social development policy. We analyze how researcher and policy makers’ cognitive barriers have influenced the definition of the problem, and hence the implemented solutions. We challenge rural leaders and policy makers to develop new mental models that facilitate the capturing of the social and intellectual capital of former residents using the power of the Internet and show how this could provide hitherto unrecognized resources in revitalizing the communities’ social and economic conditions.

Challenging Cognitive Barriers to Rural Revitalization In an Internet Economy

Introduction

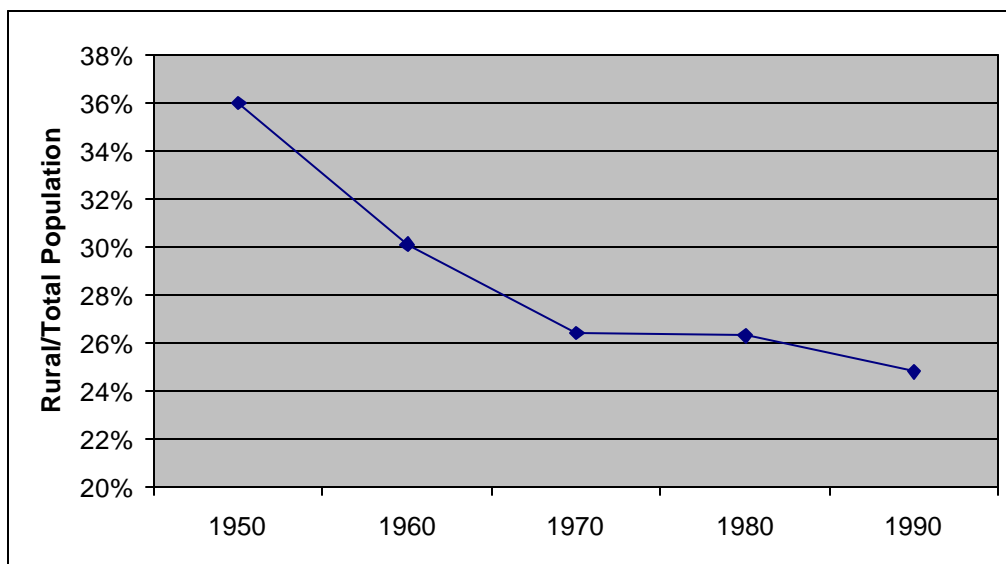
US Census and Statistics Canada data show that the proportion of the total population living in rural areas has been on the decline for decades, leading to a sense that rural communities are in decline. This sense has led to the development of a large volume of knowledge on “rural decline” and to the development and implementation of policies aimed principally at abating or preventing the decline. The changing social and economic environment across North American requires that the assumptions underlying these solutions be scrutinized to help develop policies that support sustained economic and social development in rural communities.

Our principal objective in this paper is to review major assumptions driving the “rural decline” agenda and analyze how the Internet challenges the cognitive barriers to rural revitalization that have plagued both policy and research. We challenge leaders and policy makers in rural areas to develop new mental models to fully capture the power of the Internet in revitalizing the social and economic conditions of their communities.

The Principal Assumptions of the “Rural Decline” Agenda

Figure 1 shows the trend in rural population as a share of total population in the US from 1900 to 1990. The downward trend in the proportion of total population living in rural areas is evident in both figures. These trends, we believe, have formed the foundation of a significant

Figure 1: Trend in Rural Population as a Percent of Total US Population



amount of research and policy initiatives over the past few decades. Policies aimed at preventing rural-urban migration have dominated the solution landscape because it is believed that the trend can be arrested if people are encouraged to stay in rural communities. For example, in the 1960s,

rural policies aimed at attracting businesses from the outside using such fiscal incentives as taxes and direct assistance tailored for the areas (Giguere, 1998). The expectation was such businesses would stem the rural decline. However, it was found that these businesses moved out once the incentives once expired or moved to jurisdictions that more competitive incentives for migration. The 1970s saw new policies that focussed attention on the internal resources of the communities and in recent years, the OECD has been promoting “territorial development” to capture “formerly dispersed programs on local development, urban affairs, rural development and regional policy” (Meyer, 1998).

Despite these developments, it seems analysis of rural population trends are rooted in paradigms that constrain how rural social and economic development can occur. The concept of population is limited to mere numbers and community to location. We believe that the changing technological environment offers new options for rural economic and social development that have hitherto been difficult to capture. We show that for these advantages to be taken, there is need for the fundamental assumptions underlying policy to change.

The principal assumptions common through the literature may be grouped into three main statements: (i) Increasing job opportunities in the community will keep youth at home; (ii) Appropriate education will keep youth in the community, thereby stemming the migration out of the community; and (iii) Once people migrate, they are “lost” to the community. We evaluate validity of each these assumptions within the context of a “networked” economy.

The drain of young people from rural communities into urban areas has been well documented in the literature and many explanations and solutions to this trend have been offered. The most common reason noted for this migration is economics: rural youth leave to pursue better job or career opportunities in urban centres. A report of the Secretary-General of the UN notes the linkage between urbanization and rural labour supply, stating: “[r]ural-urban migration has led to a ‘youth drain’ in many rural areas, with impacts on agricultural labour productivity and rural social life” (United Nations, 2000). This discussion treats urbanization as a cause of rural youth out-migration, attracting youth out of rural areas in the hopes of better prospects for wage labour. Dupuy et al. (2000) write, “One reason which is often cited to explain why young individuals leave rural areas is the fact that labour market conditions are less favourable in rural areas than in urban areas.” Kennedy (1998) writes, “[a] major issue in rural America, for leaders, and the community, as a whole is that of teen or youth employment and the associated out migration”, directly linking out-migration to employment opportunity. Besser (1995) writes that “[t]he movement of young people from farms and small towns to cities is happening all over the United States” noting that “[m]any young people leave to attend post-secondary educational institutions, enter the military, take jobs, start families, or see if life really is better someplace else.”

Because the primary reason for rural youth out-migration is often cited as poor labour market conditions in rural areas, the primary solution given to curbing that migration is primarily economic, i.e., increase employment opportunities for youth in rural areas. In their annual report to Parliament, the Canadian Federal Minister of Agriculture and Secretary of State for Rural Development noted that “[r]ural Canadians are concerned about the migration of rural youth to urban areas. They believe that the most common reason for the migration is the perceived lack of educational and employment opportunities for youth in their rural

communities” (Government of Canada, 2000). They go on to state that the most important means to prevent out-migration of rural youth is to provide them with employment opportunities. Their strategy for doing this is through initiatives that attract businesses to rural areas and promote entrepreneurialism among rural youth.

Shaffer et al. (1999) follow the trend of seeking employment solutions to the rural-urban migration question by focussing on strategies for socio-economic development within those communities that produce jobs that are a part of the primary labour market. Thus, they focus on assessing the community’s resources and building solutions around them. Kennedy (1998) advises rural leaders to ensure that there are jobs for rural youth who are ready to work in order to stem the out-migration of these young people.

The assumptions underlying the thinking of keeping rural youth in the community continues to predominate. Despite the failure of the policy to address the problem, researchers continue to support it because there is a cognitive barrier that prevents these researchers and policy makers to attribute the right sensemaking processes to the issues. For example, Shaffer et al. (1999) write:

[m]any community planning groups have historically embraced the notion that any types of new jobs are helpful to community stability....Community planners are told by potential new employers that relocation of their businesses and industries will help retain workers, and especially young workers, but there is little evidence that the beneficial retention hypothesis is correct. Part of the reason for this stems from the fact that much of the resulting growth is in non-sustainable industries, so retention effects are short-term fixes rather than long-term solutions. Out-migration is encouraged by non-sustainable development when students recognize the limits of the local job market and come to expect that they will be forced to take jobs in occupations different than their parents.

It is easy to argue that job opportunities do not lead to lower youth out-migration because the wrong type of jobs are being brought into rural areas. However, we argue that even if jobs created in rural areas met the ideal, i.e., they were a mix of primary and secondary labour market jobs and they were sustainable and led to other jobs being created, young people would still leave rural areas. There is evidence in Canada that 40% of rural youth will still be willing to move to an urban centre even if they had the appropriate job in their community (Dupuy et al. 2000; Roy, 1997). Similarly, Besser (1995) points out that “all areas, rural and urban alike, experience out-migration of offspring between the ages of 20 and 34.”

Given these observations, economic development plans based on the assumption that attracting new jobs will keep youth at home may actually be barriers to the actual development of the community. As long as valuable development resources are poured into programs to keep young people at home, they are being wasted. We argue that there is great value in keeping young people connected to the community, but that does not mean that youth have to remain *physically* present in the community at all times. With the growth of solutions offered by the Internet, this connection becomes even more possible.

A corollary assumption to the view that attracting new jobs to rural areas will keep youth at home is the view that “appropriate education” will keep youth at home in their rural communities. The implication here is that if higher education leads to youth out-migration, then young people in rural areas should receive an *appropriate* education, i.e., education that is

appropriate for the circumstances and opportunities existing in their communities. Shaffer et al. (1999) write:

[t]he challenge for many rural school districts is to develop a *curriculum of place* in which schools not only study their local communities, but also study information and skills that will suit them to stay in their communities and be productive. [Emphasis ours]

There is a vast difference however, between appropriate technology and appropriate education. Arguing that rural youth should not pursue a higher education in order to keep them at home seems irresponsible. A more appropriate solution may be taking advantage of the new technologies, such as the Internet, to provide distance learning to rural youth, so that they can pursue higher education but don't have to leave home to do so (Carter, 1999). However, this strategy is still supported by the assumption that something in the rural community can be changed in order to keep youth at home. Given the research already cited on youth mobility, it would be more realistic to recognize that pursuing higher education is not the only *reason* why youth leave, it is only the *means* they use to leave. It is this belief that youth can be kept at home, and that youth should be kept at home in order for rural communities to grow and prosper, which will keep development planners in rural communities from realizing the potential benefits of letting the youth go. And without recognizing the benefits of letting the youth leave, it will be impossible for them to recognize the value of reconnecting the community to youths who have left the community. As long as this cognitive barrier remains unchallenged, the community loses its access to significant resources embedded in the growth in both physical and intellectual assets that accompany the youth who leave the community.

Another assumption that keeps researchers and policy makers from reaping these benefits of a community's youth after they migrate is the belief that once rural youth leave their community they are forever lost to them. This cognitive barrier is exhibited in statements such as "when youth leave a community, they, in many ways, take with them the future of that community" (Kennedy, 1998) or the lament of the loss of the best and the brightest of rural population to the "nation's metroplexes" (Drabenstott, 1999). Describing rural youth out-migration as a "brain drain" or as a "loss" emphasizes this assumption that once youth are gone from the community they are gone for good. Dupuy et al (2000) found that "[a]t most 25% of leavers return to their rural community ten years later." Though these figures may seem dismal in terms of balancing the actual numbers of out-migration and in-migration, what really needs to be examined is the kind of contributions to the community these returning migrants make.

Harnessing Technology to Revitalize Rural Communities

People return to their communities for a reason: they know what the community is like and they choose to return to it. This foretells a sense of commitment to the community. Are there others who do not physically return but are emotionally connected? Can communities harvest these connections and transform them into social and economic capital or resources to aid their development?

There is research supporting the emotional attachment of migrated rural youth to their communities and how this emotional attachment increases as they grow (Besser, 1995; 1997). If

we model the trends in rural populations over time, we begin to see asymptotic declines that we have argued will never be reversed in raw numbers because of all the forces that encourage young people to migrate. However, if communities overcome their cognitive barriers and begin to recognize “virtual residents” because of their emotional attachment, this traditional asymptotic curve transforms itself into a U-curve beginning at the point of cognitive shift. In this sense, the estimation of human resources in the community is not calculated in terms of raw number of residents but in terms of human capital available to the community.

Internet websites, such as ClassMates.com (www.classmates.com), HighSchool Alumni (www.highschoolalumni.com), SchoolNews.com (www.schoolnews.com) and Alumni.net (www.alumni.net) are using Internet technologies to reconnect former residents to each other. The membership levels on these sites are significant. For example, ClassMates.com claims to have 11 million members who attended high schools in the US, Canada and American and Canadian secondary schools overseas while HighSchoolAlumni.com claims to have 3.5 million registered members who attended US high school. Depending on how these members are used, these can create significant economic force for a community.

Rural Solutions Inc. is an experiment undertaken by VentureLabour.com (www.venturelabour.com) to assess the role of reconnected former residents in the social and economic development of rural communities. It focuses on aiding rural communities with portal and e-commerce technologies to facilitate reconnection with their former residents to the communities and to each other. Using its RuralConnexions™ software, RSI offers rural communities access to comprehensive social and economic development tools embedded within a community Internet portal.

Communities that are successful in using the RuralConnexions™ software have leaders who have overcome the assumptions we have discussed thus far. For example, they do not accept the assumption that the youth have to be kept in the community, or the youth who leave are lost to the community. On the contrary, they believe that their youth should be encouraged to leave to improve themselves, their intellectual and social capital and “return” to contribute to the community using assets they have built.

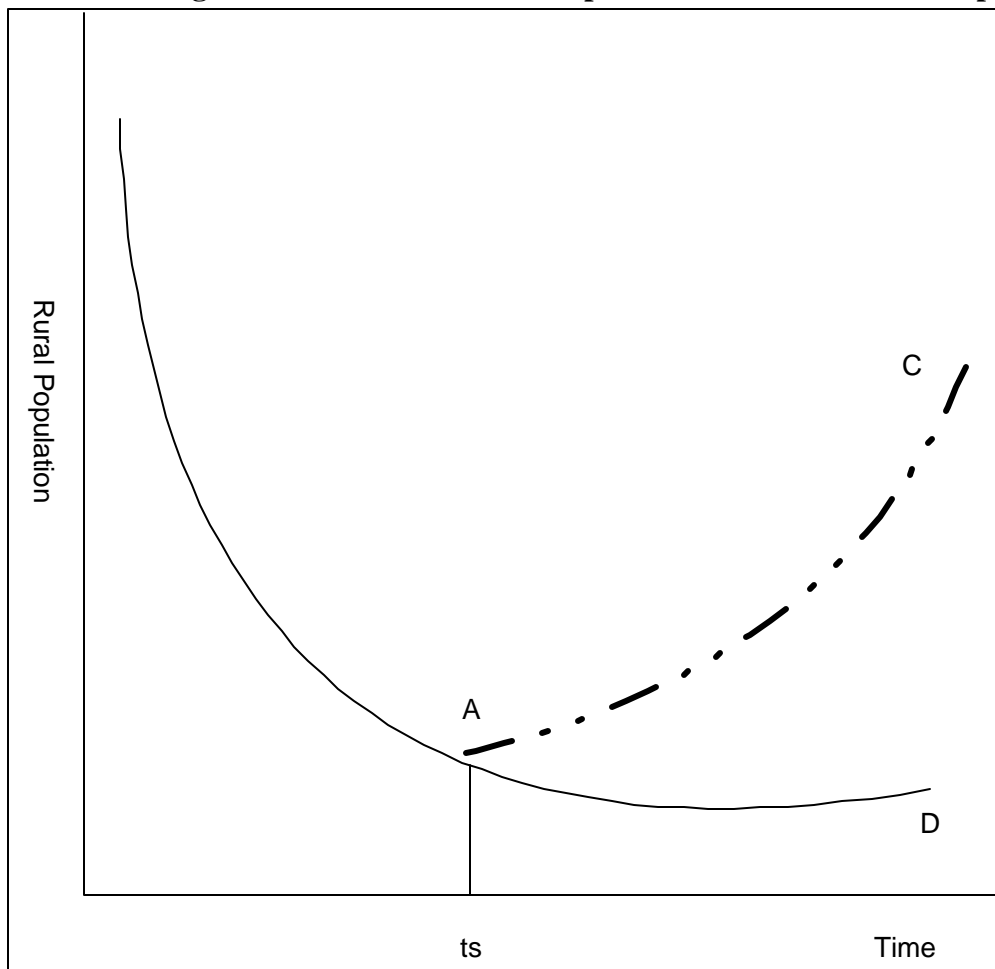
Results of System Dynamic Analysis

We use the system dynamics modelling (SDM) approach to assess the effect of cognitive shift on economic resources available to communities. The software used was STELLA®. Figure 2 shows the simulated results of the trend in rural populations as a proportion of total population.

If we define rural population as a stock, then it grows from natural growth or in-migration (inflow) and declines from out-migration and death (outflow). As long as the inflow is less than the outflow, the population will decline. However, assuming equal death and birth, then we can conclude that the only interesting relationship is the one between out-migration and in-migration. To this extent, rural populations will decline as long as out-migration exceeds in-migration. This is what has been recorded for many decades in both Canada and the US.

When researchers, rural leaders and policy makers make the cognitive shift to view rural youth who migrate as assets, the definition of population is changed from mere numbers to encompass the *quality* of the population. In this case, we are assuming that a community with a large population will not necessarily be more economically and socially robust than one with a smaller population. This is borne out in comparing the socio-economic performance of countries and territories (World Bank). The cognitive shift in how population is defined leads to an alternation in the ratio of rural population to total population. Maintaining a connection with migrated youth ensures that whatever assets they have developed are not fully contributed to their adopted urban communities; a portion of these assets is “invested” in their rural communities. This turns the trend from a declining one to an increasing one, one whose gradient increases over time because the intellectual and social capital of rural youth are assumed to increase at an increasing rate as they grow. In the figure, the cognitive shift is assumed to occur at time = t_s at which point the recognition of migrating youth as assets alters the direction of the curve (AC). In the absence of the cognitive shift, the trend continues (AD).

Figure 2: Effect of Cognitive Shift About Rural Population on Estimation of Population



Once the shift is made, we observe that community leader begin to find ways of empowering their former residents to become advocates and ambassadors for the community in

their “adopted” domiciles. The Internet allows the community to keep its former residents abreast with community initiatives and news and keep the community on their mental radar. If the reconnection is effected properly, the community benefits in its economic development initiatives by having a lot more “soldiers” selling its benefits for investments, both capital and people, because “they know it’s the best place to live and raise a family”. Internet technology also allows the former residents to play more active roles directly in the community by offering time to social services (youth mentorship, fund raising, committees and such volunteer services) via the portal’s secure chat and messaging systems. Thus, they don’t have to be physically in the community to contribute their social and intellectual capital.

The elimination of these cognitive barriers has significant opportunities for agriculture and agri-food industries because more than rural development, the agriculture and agri-food sector needs advocates in urban areas. People tend to trust people who are like them. By reconnecting to former rural residents, the agri-food sector can keep them informed about the farm production and food processing issues that are of interest to urban consumers. This shift in treatment of former residents from “lost” to “found” allows former 4-H and Young Farmers participants to re-robe themselves to speak on behalf of agri-food to their urban peers, who see them as “just like themselves” on such thorny and often sensationalized issues as food safety, biotechnology and environmental responsibility.

Conclusion

The Internet has opened opportunities for rural communities to draw on their former residents as assets instead of “lost” people. However, the assumptions that have driven rural social and economic development policies have to be challenged so that leaders can develop the appropriate perspective about youth migration, population and revitalization. We have shown that by shifting from the “rural decline” mentality to defining population as intellectual and social capital, communities can begin to define themselves not as a geographic location but a collection of assets, with geography being one of these assets. By doing this, communities can focus on maintaining relationships with their former residents in ways that allow these former residents to contribute to economic and social development in the community.

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