





NRE<sup>2</sup> BUILDING RURAL CAPACITY IN THE NEW ECONOMY

## Using Traditional And New Communications Technology To Support Rural Development

David Bruce  
 Mount Allison University  
[dwbruce@mta.ca](mailto:dwbruce@mta.ca)  
 506-364-2395  
<http://nre.concordia.ca>

Purpose:

- Set the context and background for the presentations to follow
- Provide overview of the evolution of NRE with an emphasis major learnings thus far, and how NRE2 is structured.

General acknowledgements:

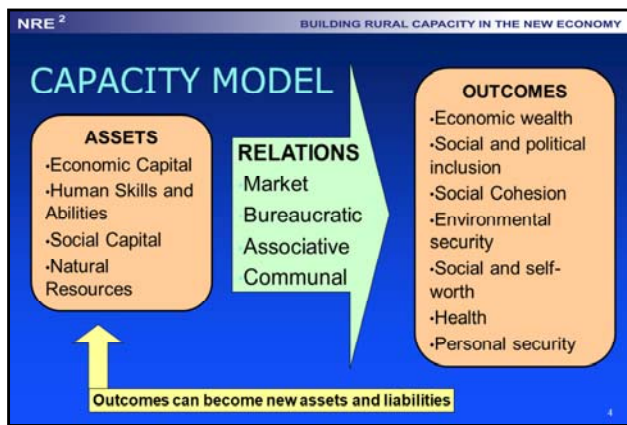
- All presentations are collaborative in nature, and have benefited from efforts of all the members of the research network
- Funding from many sources over the years has made our work possible, especially that of SSHRC and the Rural Secretariat, and others including Health Canada and Statistics Canada

## Outline

- Context for Communication
- Community Capacity
- NRE Observatory
- Research Methods
- Research Findings
  - Communication Tools and Resources
  - Participation in On-Line Chats
- Discussion

## Context for Communication

- Metaphors: Web, oil, glue (Emke, 2002)
- Community Infomatics (Gurstein, 2001)
  - Infrastructure to deliver pipeline
  - Organization to install and manage the technology, provide training, programs, etc
  - Ability to translate content to be locally relevant



(Re)vitalization occurs when capital and resources are (re)organized to produce desired outcomes. The ability of rural communities to do this in a successful fashion is what we refer to as the community's capacity.

•(S) Assets:

- Multiple types: we have identified some of the major groupings, but there may be many other classifications
  - In Cap-à-l'aigle example:
    - Economic capital from local businesses and government
    - Human capital from experienced persons
    - Social capital from municipal counsel, lilac club, government programs and bureaucracy
    - Natural resources: climate and environment
  - Must move beyond a focus on single asset groups (e.g. agriculture, fishing, forestry, mining, tourism, etc.)
  - See how they inter-relate
- Social capital is under-valued
  - It can enhance the quality and usefulness of the other types of assets
  - Investment in social capital can improve or modify those other types to make them more useful

•(S) Types of relations by which (re)organization of assets takes place

- Multiple types of relations
  - Basically social: People getting together to identify/recognize assets and take action to reorganize them into outputs
  - Done in many different ways
  - We have classified them into 4 basic types to capture this diversity and provide a focus for thinking about the variety of strategic options for rural people and policy-makers
  - Cap-à-l'aigle:
    - Lilac club = associative
    - Municipal counsel, provincial gov't = bureaucratic
    - Local businesses, community economic development = market
  - We tend to fixate on one or the other, but all types can contribute to producing valued outcomes
- They do it in different ways
  - Can reinforce each other
  - Can inhibit each other

•(S) Outcomes:

- As with assets, can be identified in various ways
- We have identified the types of outcomes that are particularly important for sustainable development
  - Cap-à-l'aigle:
    - Economic wealth: festival brings people to town – many benefits for B&Bs, local businesses
    - Social and self-worth – community is proud of its achievements
    - Social cohesion – have proved their ability to achieve something together, learned how to do it in the process
- Particular attention to social cohesion since this is a feature about which we have expertise, it is under-researched in the rural context, and it plays a key role in local community development

•(S) Feedback

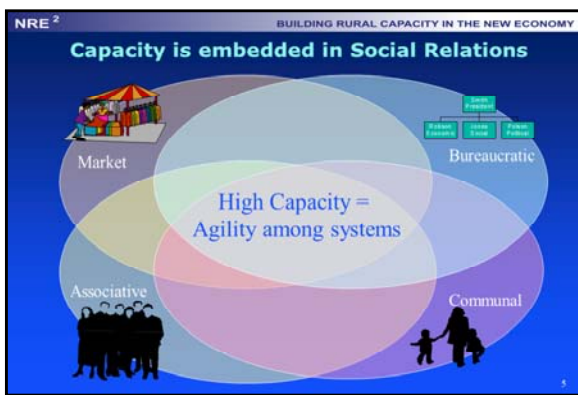
- The outcomes can become new assets and liabilities
- Cap-à-l'aigle:
  - Creates new economic capital: renovations, businesses
  - Increases human capital: learning new skills
  - Social cohesion reinforces and expands base of social capital: new groups formed to manage festival, strengthens legitimation of lilac club and interested parties
- It can also become a liability
  - 'Us' and 'them' mentality between community and tourists
  - Economic objectives for lilacs conflict with original hobby interests

•Our focus for this model:

- How can it help us to understand the processes involved in building capacity?
- What does it suggest for strategies relating to the building of capacity?

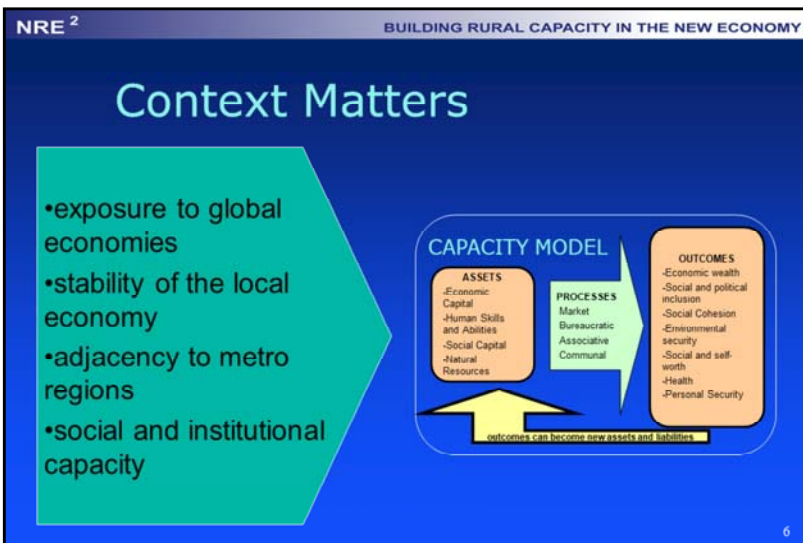
•We have identified the social relations as a key element to answering these questions

- The identification and re-organization of these assets relies on multiple types of social relations (cf. next slide)



There are many different ways in which the organization of assets takes place

- This insight arises from our recognition that capacity is based in social relations (Facilitate/represent people working together)
- Social relations are organized in different ways
  - Expectations, norms, institutions, rights, obligations are all different and integrated
- Each is supported and enforceable by socially recognized institutions (norms, entitlements, laws)
  - (S) Market relations (e.g. commerce, labour markets, housing markets, trade)
    - Based on supply & demand, contracts
    - Supported and controlled by trade agreements, competition legislation, labour law, better business bureau, and the courts
  - (S) Bureaucratic relations (e.g. government, corporations, law, formal organizations)
    - Based on rationalized roles, authority and status, generalized principles
    - Controlled by legislation, corporate law
    - Different than market-based: market negotiations focus on costs and benefits, bureaucracies on regulations, roles, and entitlements
  - (S) Associative relations (e.g. baseball, bridge clubs, environmental groups, meals on wheels)
    - Based on shared interest
    - Controlled by civil law, municipal by-laws, social norms, and informal sanctions
    - Different than market and bureaucratic: e.g. 'I will be happy to help at the dance, but I don't want to sit on committees.'
  - (S) Communal relations (e.g. families, friendship networks, gangs, cultural groups)
    - Based on family, reciprocity, favours, common identity
    - Controlled by informal norms, legislation, family law, and government support agencies
- The systems by which they are organized can reinforce or conflict with one another.
  - **Conflict:** Associative and Bureaucratic relations:
    - Bureaucratic require competition for resources and accountability in their use.
    - Associative require commitment to the shared interests of the group (don't mix well with private entrepreneurs)
    - Partnerships between bureaucracies and volunteer groups are therefore problematic
      - Bureaucracies require accountability; voluntary groups require high shared interest in the goals
      - Accountability requirements of bureaucracies divert people from their shared interests and
      - Associative suffer stress from lack of finances and membership burnout
        - 'I will be glad to coach, but I don't want to sit on any committees'



- Capacity processes are attractive foci because they are:
  - Manageable at the community and regional levels
  - Have important implications for key outcomes (will provide illustrations of this later)
- But:
  - Severe constraints and effects operate on the local ability to build and act on their capacity
- This is the reason why our research was structured within the NRE Sampling Frame
  - Distinguishes our approach from a simple assets-based economic development one (ABCD)
- Originally, compared two outcomes (OECD inspired):
  - Leading: on income, employment, housing characteristics
  - Lagging on those same characteristics
- Four major contextual features that were proposed to condition local processes and have impacts on those outcomes
  - Extent of exposure to global economy
    - Affects local vulnerability to economic processes outside the local situation
    - Reflected in trade by industry at CD levels
    - Have now updated using more specific trade information
  - Stability of the local economy
    - Unstable economy makes it much more difficult to anticipate the future and plan
    - Also – originally based on industry employment at CD levels
    - Now: have updated it using trend figures from 1993 to 2001
  - Adjacency to urban centres
    - Access to markets in goods, services, labour, and housing significantly affected by nearby centres
    - Reduces transaction costs
    - Original CD-level classification (Beale codes) updated to distance to nearest centre of 100,000 or more
  - Social and institutional capacity
    - Having services and institutions provides an important infrastructure for attracting and maintaining populations
    - Have refined our understanding of this:
      - Now understand it to include social capital and capacity
- Using these 5 dimensions, we constructed a sample frame for the selection of field sites for intensive analysis and collaboration.

## Leading and Lagging

- Sites distinguished into leading and lagging status on the basis of several socio-economic indexes
  - **Employment** (employment rate, participation rate)
  - **Housing** (% of HH gross rent is  $\geq$  to 30% of HH income, % of dwellings owned)
  - **Income** (median household income, % of households below the low income cutoff)
- Reimer, Bill, "A Sample Frame for Rural Canada: Design and Evaluation", *Regional Studies*, 36:8, 845-859, 2002.

## High and Low Capacity

- Sites distinguished into and high and low capacity status on the basis of several socio-economic indexes
  - **Employment** (self-employment rate, workforce in high paying jobs)
  - **Housing** (avg value of dwellings)
  - **Income** (1991 family incomes more than \$50,000)
  - **Education** (post-secondary)
  - **Industries** (transportation, storage, utilities, communications)
- Reimer, Bill, "A Sample Frame for Rural Canada: Design and Evaluation", *Regional Studies*, 36:8, 845-859, 2002.



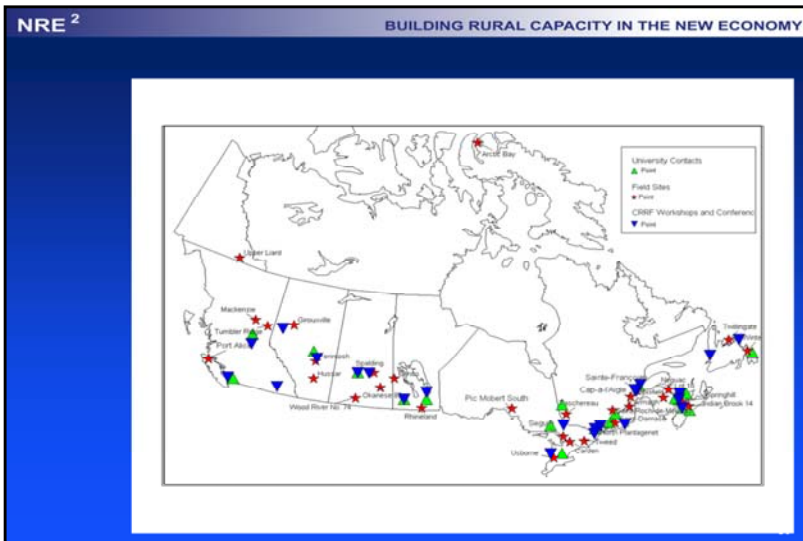
NRE<sup>2</sup> BUILDING RURAL CAPACITY IN THE NEW ECONOMY

### The NRE Sample Frame

			High Capacity		Low Capacity	
			Lead	Lag	Lead	Lag
Global Exposed	Fluctuating	Adjac.	175	27	46	15
		Distant	251	13	124	44
	Stable	Adjac.	4	26	8	19
		Distant	5	16	18	30
Local Exposed	Fluctuating	Adjac.	4	5	4	9
		Distant	12	16	5	13
	Stable	Adjac.	12	100	7	45
		Distant	15	99	16	56

## The Distribution of CSDs by the 32 types of cells

- Sample procedure
  - Identify all rural CSDs using available information
  - Randomly selected one site from each cell
- Took it to our regional partners and discussed:
  - the accuracy of the classification from the basis of their knowledge
  - existing research activities related to the selected sites
  - strategic opportunities arising from the selection
- If changes were warranted
  - make substitutions from within the same cell
- This serves as the basis for our 'Rural Observatory'
- NOTE: The diversity of rural Canada
  - 706 Leading CSDs
  - 533 Lagging CSDs
  - Index based on National standards – yet makes clear that not all of rural Canada is in decline



- Universities represented
- 32 field sites chosen (5 dimensions of comparison)
- Workshops and conferences
  
- Invitation to work with us
  
- How does this framework help us understand the problems associated with exclusion?
- I will explore this question by focusing on the changes occurring in rural context (Canada specifically)
  - In what ways have these changes contributed to new forms of exclusion?
  - What are some of the strategies available for mitigating or overcoming these new forms of exclusion?

## Communications Inventory

- June – July 2003
- 22 sites
- Internet service provision and access
- Public Internet access (CAP sites) and usage
- Local, regional, provincial and national newspapers
- Community newsletters
- Community bulletin boards
- Interpersonal communication (gathering places, events, meetings)
  
- Cable television and community programming
- Direct broadcast satellite
- Community websites
- Community radio
- Community identifiers (symbols, slogans)

## Technology-Mediated Learning

- 22 sites
- Participants in 9 key topic areas (identified in earlier components of the research)
- Facilitated, on-line learning “chats” or seminars using a free Internet chat-room
- Participant assessments and evaluations
- Chat transcripts (17) and messages

## Internet Access

N=22	Total	Leading	Lagging	High Cap	Low Cap
Avg # ISP's per site	2	3	2	3	1
% with Broadband	45	<b>56</b>	38	47	43
% with DSL	36	44	31	27	57
% with CAP site	82	78	85	<b>100</b>	43

NRE<sup>2</sup> BUILDING RURAL CAPACITY IN THE NEW ECONOMY

## Newspapers and Newsletters

N=22	Total	Leading	Lagging	High Cap	Low Cap
% with Local Paper	27	<b>44</b>	15	<b>33</b>	14
% with Regional Paper	96	89	100	93	100
% with Newsletter	68	56	<b>68</b>	<b>73</b>	57
% with Other Newsletter	27	22	31	13	57

14

## Bulletin Boards

N=22	Total	Leading	Lagging	High Cap	Low Cap
# of Bulletin Boards	6	5	<b>7</b>	7	6
# of Event Postings	35	23	<b>43</b>	32	<b>42</b>
# of Business Postings	29	16	<b>37</b>	28	32
# of Informal Economy Postings	24	23	26	25	21

NRE<sup>2</sup> BUILDING RURAL CAPACITY IN THE NEW ECONOMY

## Meeting Spaces and Events

N=22	Total	Leading	Lagging	High Cap	Low Cap
# Informal Gathering Spaces	3	3	3	4	2
# Community Halls for Meetings	4	2	5	4	3
# Annual Events	6	6	7	5	9

16



## Participants

N=26	Number	Percent
Male	7	27
Female	19	73
35-54	16	62
55-64	10	38
Leading	9	35
Lagging	17	65
High Cap	18	69
Low Cap	8	31

NRE<sup>2</sup> BUILDING RURAL CAPACITY IN THE NEW ECONOMY

## Experience and Reaction

N=26	Total	Leading	Lagging	High Cap	Low Cap
Chat room Tech Useful	54	33	<b>61</b>	<b>61</b>	38
Content Useful	54	33	<b>61</b>	55	50
Might Apply in Other Uses	27	33	22	17	<b>50</b>
Will Participate Again	89	78	89	89	88

18

## The Content – 17 Chats

- Using the technology in other settings - 4
- Using the ideas from the discussion - 6
- Networking with others after the chat - 8
- Usefulness of the discussion - 7
- Sharing ideas & knowledge in the chats - 13

## Communication as Web

- Leading and High Capacity sites have slightly larger webs
- Different web elements are more important in some types of places
  - Bulletin boards for businesses to advertise in lagging sites (because they lack other tools)
- Low Capacity sites – people see potential value in using chat room technology to overcome distance barriers, limited face-to-face networking opportunities

## Communication as Oil

- Local papers in Leading and High Capacity Sites
- Newsletters in Lagging and High Capacity Sites
- Community halls in Lagging Sites

## Communication as Glue

- More events in Lagging and Low Capacity Sites
- Content analysis is needed for other elements

## Community Infomatics

- Limited evidence of this
  - Broadband lacking (but coming!)
  - Most have CAP sites (but are they working well?)
  - Perceived / planned use of chat room content in local settings is limited

## Capacity Building Evidence?

- Modest new forms of social capital (networks built thru chat rooms)
- Modest new forms of human capital (chat room is a new use for some)
- Lots of potential but limited application of IT for community to learn / facilitate rural development
- Further research: function of CAP, content of websites, content of local papers, addition technology-mediated learning, assessment of communication practices