2-19-2002

Tele-Community Development - Part II: The Nature of Global Villages, Universe Cities and Communities of Learning in the Information Society

Richard Lowenberg

---

issue 17
collaboration

[rivets + denizens]
collab.curatorial
models in theory &
practice

about the new SWITCH >>>
interview with the Whitney's Christiane Paul >>>
Lost in Lights: the music of Muslimgauze >>>
view past issues >>>

[Rivets + Denizens]
Collaborative Curatorial Models
in Theory and Practice
Curated by Ron Goldin
Introduction
Natalie Bookchin
Heath Bunting
Ron Goldin
Beryl Graham
Patrick Lichty
Lev Manovich
Mark Napier/Liza Sabater
Christiane Paul
Joel Slayton
Benjamin Weil
Alena Williams
+ + + + +

Tele-Community Development - Part II
The Nature of Global Villages, Universe Cities and Communities of Learning in the Information Society
Richard Lowenberg on Feb 19 2002   **issue 17**

Part two of a paper given at the International Forum on Townspace Design in Fukuoda, November 22, 2001, Fukuoka, Japan.

3.5 Networks and Communities

Networks are not hierarchical. They are hyper-archical. The nature of networks is to be distributed, not centralized. Information networks are radically restructuring social organizations as they are applied to everyday life. Communities are being redefined, not simply as geographic locations, but based upon shared interests, values and objectives; now referred to as "virtual communities." Networks are evolving and affecting communications, commerce and beliefs beyond national and municipal control, and they are provoking us to consider and enable new forms and means of governance. Work and educational environments are in flux. They are also evoking a tension that will require our reassessment of the complex and delicate co-evolution between individuals and society. What ever happened to the promise of increasing leisure time?

Following are some primary categorizations of "First Mile" networks. Each requires its own appropriate wired or wireless technical solution, and spectrum/bandwidth allocation. Each must also be planned and implemented with specific geophysical, economic, policy and social considerations.

- The Community (urban-rural): Regional Networks, Municipal Networks, Community Networks, Neighborhood Networks, Emergency Networks.

- The Enterprise: Corporate Networks, University Networks, School, Library and Medical Networks, Special Networks.

- The Home: Appliances, Sensors and Controls, Info-tainment Systems, Desktop Tele-Computing.

- The Individual: Mobile Devices and PCS, Wearables, Implants.

3.5.1 Smart Communities (Smart about What?)

The goals of integrating and involving our communities with tele-technologies should not be to provide a technical fix for the complex issues facing our future. They ought to help us get a little smarter; smarter about our social, cultural, and economic futures. Smarter communities will be the foundation of a healthier, sustainable society.

With advocacy from federal and state government, "Smart Growth" initiatives are now being promoted in most US metropolitan areas, with particular emphasis focused upon mitigating the impacts of 'sprawl' and untenable development. In more and more

communities, stakeholder planning initiatives are taking first steps to address complex realities such as: politically challenging demographic changes; increasingly harmful transportation impacts; critically contentious watershed resources allocation and distribution; air pollution looming evermore densely visible above the horizon; agricultural fields being consumed by sprawling subdivisions; and education that is not keeping pace with rapidly changing workplace needs. Most of these well intentioned, but largely reactive and partly vested-interest motivated planning processes have barely begun to consider the impacts and implications of continuing technological development, local-global internetworking of society, and the 'digital economy'.

Well designed public-private regional networks could make existing "Smart Growth" planning processes more participatory; help to more effectively consider and deploy new broadband infrastructure and online services in the regions; facilitate policy and investment strategies; and provide a better means to assess the impacts and opportunities brought about by changes over time. Networked mapping and modeling tools, offer the capability to provide an increasingly detailed geographic picture of the economic and social patterns and dynamics, and the associated impacts and implications of telecommunications deployment, business and job creation, educational enhancement, community development and policy. Civic partnerships can help to assure data and analysis credibility, accuracy and completeness, as well as safeguarding certain sensitive data. The realization of "Smart Communities" and "Smart Growth" must be actively integrated. It is time to truly demonstrate what we intend to be smart about.

The following list of Best Practices are representative of the objectives, techniques, processes and successful constructs of Smart Communities. Taken as general principles, they allow for uniquely local variation of implementation. Taking a whole systems approach, these Best Practices promote consideration of telecommunications within the context of a better educated, creative, healthy, economically vital, ecologically sustainable, democratic society. The truth is in the details, though. How will your community's telecommunications planning and implementation efforts practically compare with the following listed Best Practices?

- Recognize and support key leaders, champions and visionaries, while actively involving diverse groups as creators, users and beneficiaries of tele-networked communities.
- Formulate and grow working regional cooperation, collaboration and partnerships, while promoting the balance of healthy competition and choice.
- Agree to share telecommunications infrastructure, technical standards, services, policies and understandings among regional partners, demonstrating open systems approach.
- Develop dynamic, democratic organization and management processes to facilitate phased, long range telecommunications planning, investment and implementation.
- Establish and regularly review phased project technical and social goals and objectives.
- Link schools, government, libraries, healthcare and other public institutions with business and civic networks, sharing costs and applications development.
- Invent new public-private partnering solutions and opportunities to build internetworked systems and services as contributors to community economic development.
- Integrate tele-networking with transportation, energy, water, natural resources and comprehensive community planning.
- Increase local efficiencies and productivity through networked information access, application and exchange.
- Promote community conversation, conservation and lifelong learning.

3.5.2 Community Networks

Community Networks first emerged in the late 1970's, as an outgrowth of the period's alternative computing initiatives in the San Francisco Bay area, excitement about the new ARPANet, and concurrent development of the first personal computers. Most community networks, as we now know them, emerged since the early 1990s, as personal computers proliferated, as the Internet and the Web reached into the public sphere, and as it became clear that to benefit, localities would have to become involved in shaping their corner of our tele-networked society.

Many early community networks have not survived the rapid evolution of technology; social and economic reorganization; marketplace competition; non-profit volunteer burnout; and other human-scale effects of entropy. Like many of their boom-bust .com counterparts, they have important lessons to teach us. More resourceful community networks have and will continue to reinvent themselves, leveraging their technical,

social or economic strengths, while addressing the evolving needs of their constituent locales.

Today, community networking ventures are working to promote a geographic sense of place amid the Internet's fostering of 'global-E-zation'. At their best, these real-world efforts are not just cookie-cutter replications of each other, though. They are site-specific and creatively pragmatic responses to existing local context. They are taking a variety of forms relative to their local circumstances, resources, needs and leadership, to include 'municipal information utilities', often led by government or energy companies; 'green field' real estate developments, wiring all with fiber to the home (FTTH) or fiber to the curb (FTTC); and joint venturing with other local media (radio and television), as broadband tele-media convergence pushes into the neighborhood and home, redefining our lives, sense of place and the nature of community. They are a critical means for mitigating the 'digital divide' disparities that will continue to trouble rural-urban society; a role beginning to be recognized by more government and private sector funding sources, as well.

Community networks are helping to provide access, education, economic aggregation, local information resources and content development, research and demonstration, networked planning, civic decision support, and computer systems recycling. They are economic incubators and techno-social testbeds, that ought to be invested in by a convergence of the large companies and government agencies that have the most to gain from the new information economy. If healthy and well conceived, they can continue to evolve to meet local needs, by fostering lifelong learning, setting examples for changing societal organization, stimulating new economic opportunities, and nurturing ecological intelligence.

3.5.3 Communities of Learning

Beginning almost a millennium ago, universities have been designed as small cities; communities of learning. As learning becomes everyone's occupation in the Information Society, internetworked small towns embody McLuhan's concept of Global Villages, and large urban centers may be called Universe-Cities.

To deny local civic institutions and partnerships from direct involvement in telecommunications infrastructure planning, decisionmaking and deployment, is to deny and undermine the potential impacts of telecommunications systems and services upon local economic and cultural development, lifelong learning, civic democracy, and ecological sustainability, the supposedly intended outcomes of a knowledge-based information society.

Communities that are contemplating, planning or implementing various approaches to their participation in this new society should not simply conduct cost-benefit analyses to determine short term return on investment and projected economic profitability. They must take the long view, and position themselves to become globally networked communities of learning. For more than any commercial or financial incentive, the real value in becoming tele-communities will be in the currently undervalued economic return from knowledge acquisition, application, creation and distribution.

Will we participate in steering contemporary society towards increasing and accelerating technological consumerism and apathetic dependency, or toward becoming a knowledge based society? The latter will require a profound investment in learning. This will undoubtedly be a most difficult position for communities to take and promote, but early experience indicates that not to do so will significantly increase the potential for future economic and social failure.

The advent of globally pervasive tele-presence will foster a real estate boom in new 'communities of desire', those places offering improved quality-of-life environments and opportunities, where people desire to live. We need to become ever more sensitive to the fragile ecology of these pioneering physical and virtual places as we begin to build Tele-Communities.

Social decentralization and technologically mediated interconnectivity will also force a reconsideration of rural and urban relationships. Today's disadvantaged rural towns and urban neighborhoods may have more in common than they differ, in the emerging landscape of social reorganization. What they lack as the result of post-industrial evolution, may be the seeds of their renewal if they have the desire to responsibly and intelligently move forward. The qualities of local scale, family and neighbor, backyard conversation, and rolled-up shirt sleeve self reliance, may help to mitigate the fragmentation, passivity and apathy brought about by centrally managed broadcast consumerism and forces of 'society as system' homogenization.

A great design and planning challenge and opportunity is at hand.

3.6 Global scale questions that impact tele-community development decisions

Is the net and its dependence on technological innovation and development, sustainable?

(According to a 1995 report by Preissler and Jaerisch, at the Society and Technology Research Group at Daimler-Benz AG, the production of one PC requires: 33,000 liters of water (=annual individual consumption of water in Western Europe); 5,000 kilowatts of electrical energy (+ 40-85 kilowatt hours, yearly use); and results in 640 lbs. of waste (some highly toxic).

("Dig more coal--the PCs are coming" by Peter Huber and Mark P. Mills, in the May 31, 1999 issue of Forbes Magazine, cites the following: "There are already over 17,000 pure dot-com companies (Ebay, E-Trade, etc.). The larger ones each represent the electric load of a small village. It takes 9 kilowatt-hours to etch circuits onto a square inch of silicon, and about as much power to manufacture an entire PC (1,000 kilowatt-hours) as it takes to run it for a year.")

- At a time and in this world of increasing populations, accelerating change, and globally interconnected impacts, what are the affects of greater human activity in the material world, and increasing communications in the sensory environment? What are the implications and consequences of everyone having the opportunity to do something and to say something?

- Are we going to experience a greater noise to signal ratio?

- Will the Information Revolution unleash a possible 'tsunami' wave of evermore greedy, selfishly motivated, competitive commercialism and consumerism, that may dramatically undermine the most well-intended works for social and environmental benefit?

- How can the Net be used to mitigate the impacts of population explosions; increasing consumption and waste; technological development and dependence; imbalances of water, air and energy resources distribution; pollution; environmental destruction; and warfare?

- What is the appropriate, integrated technological, economic, political and cultural balance that may foster improved quality of life for the majority of the world's populations?

- What are the restructurings and relationships between small towns, suburban neighborhoods and large urban centers in the new Information Society; and how might the virtual realm affect the physical nature of architecture, transportation, cultural expression, economic exchange and our hopes for preserving remaining wilderness and endangered species?

- What are possible outcomes of our technological evolution, from electronic, to photonic, to bio-genetic systems; and what will the impacts of these continuing rapid changes be?

- Might there be an anti-technology backlash if our current internetworking efforts do not fulfill their promise; and what can be done to avert such possibilities?

- What are the pragmatic, yet entrepreneurially exciting steps that ought to be taken to intelligently and creatively build an Information Society from the top down and bottom up?

3.7 Local scale questions that impact tele-community development decisions

The nature of 'localism' is in question amid the powerful affecting forces of 'globalism'. Many of these have already been touched upon herein. Opportunities abound as well. Innovation and successful ventures depend on knowing where there are needs to be met, and knowing what questions to ask. Many questions do not have simple answers.

- How will cyberspace affect landscape, architecture and the built environment?

- What are the 'networked' impacts upon urban-rural migrations and suburban sprawl?

- How might tele-work and tele-commuting affect transportation, energy use and leisure?

- Do computers and the Internet really improve teaching and learning in our schools, and at what age do we introduce these tools?

- Will computers and the Internet further the affects that television has had, in breaking up the traditional family and community structure; and if so what will this mean for society?

- What are sound community economic development strategies in the 'new economy', and what will the affects be upon individual spending, saving, investment and taxes?

- If the rapid and powerful changes we are witnessing are real and long term, how might cities and towns best proceed to assure economic and social stability, and improved quality of life for their citizens?

If the Information Revolution is to be truly revolutionary, it will, like all great revolutions throughout history, have to be a people's revolution. Are social institutions and organizations willing to accept the responsibilities and consequences of their current technological, political and economic actions in this regard?

4. Tele-Community Planning

The tele-mediation of society will dramatically change architectural, spatial, and urban-rural relationships; and may well increase and accelerate the disparities, complexities and noise that is already having significant negative impact on urban life.

If today's Information Revolution is as great a force for social transformation as forecast, than communities must embrace telecommunications education, planning and implementation with no less commitment than is being given to the issues of land use, transportation, energy, building and other basic community planning and development matters.

Few of us can yet envision the means by which the Internet, web pages, teleconferencing and other telecommunications media might practically make a difference for the present and future of our cities and towns. Most of our civic leaders are having to make decisions in this regard, based on barely being able to keep up with rapid technological change and ever limited financial resources. Planners and designers know that citizen participation is vital, but rarely inclusive. Long-term planning and decisionmaking is nearly impossible. What are the new opportunities for our currently increasing elderly populations, and what is their relevance for our children and their children's children? These are central issues in the design of townscape. Beyond all of the good ideas and ideologies, what are practical next steps for us to take?

The following (incomplete) outline is intended as the basis for thought, discussion and implementation in the development of Tele-Communities.

4.1 Intentions

- Public and private sector partnerships (competition and cooperation)
- Shared resources and standards agreements
- Security, privacy and rights
- Economic and educational development
- Environmental impacts mitigation
- Universal access, accessibility and opportunity
- Creating a great good place

4.2 Infrastructure

- Technical, financial, and social systems
- Optical fiber and wireless networks
- Switching, routing and server systems
- Computers and other digital technologies
- Convergent tele-media services (voice, video and data)

4.3 Policies

- City and regional plans and ordinances
- Contracts and agreements with providers
- Acceptable use

4.4 Applications and Content

- Government and civic services
- Elections information and voting
- Safety and emergency services
- Transportation and other infrastructure
- Energy and resources
- Waste management
- Education (lifelong)
- Research and development
- Health and social services
- Banking and investment
- Commercial and transactional services
- Planning, mapping, simulation and decision support
- Arts and culture
- Neighborhood and community networks
- Public and personal
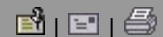- Directories and search engines

4.5 Civic Engagement

- Community networking initiatives and facilities
- Technical assistance
- Volunteerism

5. What Does the Future Hold for Fukuoka?

5.1 Scenarios: Unforeseen Factors, Strategic Opportunities and Creative Possibilities

The earth-shaking events of recent weeks and their powerful continuing ripple effects are making all of us question our assumptions about the future. In retrospect, we may come to see that the cataclysmic events that were inflicted upon Fukuoka's neighboring cities in 1945, and upon New York City in 2001, marked the beginning and end of an era, and that we are now embarking upon a very different and unforeseeable future. If we have learned anything from such tragedies, it is that the human spirit is inextinguishable. While our forces of destruction are evermore frightening, our abilities to create can be even more powerful affecting and inspiring. Our hopes and intentions will determine our future actions. As others have said before, the Information Revolution must lead to a Knowledge Revolution. The Greek roots of the word 'democracy' means: people power. Our shared humane, local-global future calls for greater 'demosophia': people wisdom.

about | **contact** | **credits** | **subscribe**