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**Community Networks  
And FreeNets;  
The Community Informatics  
Framework**

Week 8

Nov 9, 2009

# Early CN Development Factors

- Computer Expertise & Organizational Expertise
- Convergence of common interests in increasing access to ICT & complementary skills
- Excess computing power at universities
- Collaboration among organizations
- Library as both **Place** & Community Resource
- Missionary Zeal
- Major Grant Funding external to community (ex. US Dept Commerce-NTIA, Canada Industry & Commerce; Foundations; Industry funding)
- Critical mass needed for conferences & a professional organization

# **Core Services for a Community Network (Doug Schuler of SCN)**

- Conviviality & Culture
- Education
- Strong Democracy
- Health & Well-Being
- Economic Equity, Opportunity, & Sustainability
- Information & Communication

# Schuler's Core CN Services

## Conviviality and Culture

- Forums for ethnic, religious, neighborhood interest groups
- Community Histories and Lore
- Recreation and parks information
- Arts events
- Community calendar

## Education

- On-line homework help
- Forums for educators, students, and parents
- Q&A on major topics
- Distributed projects
- Pen pals
- On-line reading lists and syllabi for self-paced education

# Schuler's Core CN Services

## **Strong Democracy**

- How to contact elected officials
- E-mail to elected officials
- E-mail to government agencies
- Forums on major issues
- On-line versions of legislation, regulations, and other government information
- Community action campaigns

## **Health and Well-Being**

- Q&A on medical information
- Information on environmental hazards in the community
- Community policing information
- Tobacco and alcohol education
- Access to health-care information
- Self-help forums

# Schuler's Core CN Services

## **Economic Equity, Opportunity, and Sustainability**

- Want ads
- Job listings
- Labor news
- Ethical investing
- Community-development projects
- Unemployed, laid-off, and striking worker discussion forums

## **Information and Communication**

- Access to alternative news and opinion
- Media literacy campaigns
- E-mail to all Internet addresses
- Cooperation with community radio, etc.
- Access to library information and services
- Access to on-line databases
- On-line "Quick Information"
- Access to on-line periodicals, wire services



# The Cleveland Free-Net Pre-Web Community Computing

- Case Western U-1984  
computing power-St  
Silicon's –bulletin board
- Cleveland Free-Net-1986
- FN in a box: “National  
Public Telecomputing  
Netwk” 1989
- Key concepts: information  
& communication  
including free email  
accounts



# Free-Net Menu: A Community Metaphor in Gopher (go-for)

- [The Administration Building](#)
- [The Post Office](#) (email)
- [Public Square](#) (communication-bulletin boards)
- [The Courthouse & Government Center](#) (national, state, local—varying strength)
- [The Arts Building](#) (bulletin boards)
- [Science and Technology Center](#) (text and bulletin boards)
- [The Medical Arts Building](#) (text & bulletin boards)
- [The Schoolhouse](#) (Academy One) (isame)
- [The Community Center & Recreation Area](#) (including games & gaming)
- [The Business and Industrial Park](#)
- [The Library](#)
- [University Circle](#) (Case Western)
- [The Teleport](#) (protocols)
- The Communications Center (similar to above PO & teleport)
- USA TODAY HEADLINE NEWS

# Cleveland Free-Net

- [http://ofcn.org/whois/ben/Free-Nets/CFN/CFN\\_menus1.html#administration](http://ofcn.org/whois/ben/Free-Nets/CFN/CFN_menus1.html#administration)
- 1986-late 1990s

# Other Early Community Network Adopters (not all survived)

- Santa Monica Public Electronic Network (city) start date: 1989
- Peoria (and other) Free-Nets Start date: early 1990s
- [Seattle Community Network \(1992-1994-\)](#)
- [Blacksburg Community Village-Virginia Tech 1991-1993-](#)
- [National Capital FreeNet Ottawa 1992-](#)
- Tallahassee Free Net 1993 (Collaborative-FSU Super Computing Center Tallahassee **Public Library**)
- La Plaza Telecommunity 1993 (NTIA, Kellogg)
- [Champaign-Urbana PrairieNet \(Univ of Illinois\) 1993-](#)
- [Boulder Community Network \(NTIA\)1994](#)
- Three Rivers Free Net 1994 (Carnegie Library of Pittsburgh)

# Tallahassee FL Public Library

<http://www.leoncountyfl.gov/LIBRARY/>

# Steve Cisler: Visionary Who Connected Libns, Techies, Activists Around Community Computing

- Mentor, visionary, activist, catalyst, funder
- **Connected** those with common interests and diverse backgrounds world wide
- Aim: bring power of computing to communities
- Apple Computer—Apple Library of Tomorrow
- **First CN Conferences (1994, 1995) Ties that Bind**
- **Association for Community Networking (1995)**
- **Fostered international adoption of community computing especially in developing countries**

# University of Michigan SI Community Network Initiative-1994-2000



This site is [for community-serving organizations, funders, academics, and students](#) who are using technology to improve their local communities.



Link: <http://databases.si.umich.edu/cfdocs/community/index.cfm>

# 2001 CN CASE STUDIES

- Three Rivers Free-Net (Pittsburgh)
- CascadeLink  
(Multnomah County)
- NorthStarNet  
(Chicago Suburbs—Survivor: SkokieNet)



# CI Sought for Personal & Work-Related Situations

- Business
- Computer and Technical Info
- Education
- Employment Opportunities
- Financial Support
- Governmental and Civic
- Health
- Housing
- Library Services
- Local Events
- Local History & Genealogy
- Local Information
- Local News
- Organizations and Groups
- Other People
- Parenting
- Recreation and Hobbies
- Sale, Exchange, or Donation of Goods
- Social Services
- Volunteerism

Carnegie Library of Pittsburgh  
<http://www.clpgh.org>

**Three Rivers FreeNet  
Carnegie Library of Pittsburgh**

# **Selected TRFN Subject Guide**

- **Business**
- **Community**
- **Education**
- **Employment**
- **Environment**
- **Government**
- **Health**
- **Non-Profit Resources**
- **Social Services**
- **Volunteer Opportunities**

**CascadeLink**  
**Multnomah County Public Library**

# Benefits of Using CN

- Easier, increased access to hard to get and higher quality information (more comprehensive, better organized, linked to relevant sites)
- Decreased transaction costs (time, money, energy)
- Increased ability to identify trusted info
- Confidentiality protection; comfort in asking sensitive questions
- Skill and confidence building
- Employment and educational gains
- Increased knowledge and participation in community

# **Non-Profits & Local Gov'ts Noted Increased Ability to Exploit Info**

- Groups valued organized/standardized information
- They started to link to and from other relevant resources.
- They valued unbiased, neutral sources
- They indicated the value of current information (their own and others)
- Org. leaders begin to think like librarians

# **Increased Effectiveness of Community Service Providers by**

- Saving them time and money
- Increasing the visibility and ability to reach an expanded audience
- Fostering communication
- Helping a non-profit or local government become more responsive
- Allowing non-profits to serve their clientele more effectively



# **Personal, Family, Neighborhood Outcomes**

- Connections made to other people and groups
- Confidentiality protection; greater comfort in asking sensitive questions
- Skill and confidence building
- Employment and educational gains
- Increased knowledge of community
- Value for family, friends, and neighborhood

# Community Benefits of CNs

- Bridges built and increased social interaction across age groups among previously unconnected people and groups
- Linkages, connections, and partnership opportunities increased
- Communication among organizations increased
- Increased information sharing
- Increased trust among organizations
- Limits of geography reduced

# 1<sup>st</sup> & 2<sup>nd</sup> Generation of Community Networks Mostly Displaced

- Certain functions no longer needed (email-gmail, hotmail; local sales and exchanges-Craigslist)
- Hosting websites
- Training
- Other functions not fully realized (community conversations)

# Readings on CNs

- Cohill & Kavanaugh
- Kubicek & Wagner

# Community Informatics Basic Definition

- Community Informatics is the design and application of information and communications technologies to enable community processes and the achievement of community objectives,
- CI is concerned with the application of an interdisciplinary theoretical and empirical knowledge base to community information & technology problems
- Michael Gurstein—is a key developer of the terminology & definitions

# The Dark Ages: Before Community Informatics

- Researchers like me had challenges framing and communicating our work
  - To others like ourselves
  - To relevant audiences
- Community-focused researchers had difficulty finding each other—even within UM
- University researchers had few cross-disciplinary venues
- My own 1984 book on Citizen Activists information use
- Enter Rob Kling--Social Informatics
- Community Informatics builds on Social informatics

# Social Informatics--The Forerunner of Community Informatics

1996—the coiners:

- Rob Kling
- Phil Agre
- Andrew Dillon
- Brenda Dervin
- Ben Schneiderman
- Leigh Star
- Barry Wellman
- And others

Scholars were from diverse fields, including:

- information systems,
- LIS,
- anthropology,
- computer science, (HCI)
- communications,
- sociology,
- political science,
- Sci tech studies(STS).

## **Kling's Challenge to Researchers:**

“Our job as researchers is not simply to document the various consequences of computerization, but also to theorize them.” (Kling & Lamb: p. 306)



# Community Informatics

- Impetus came from the community
- Cities in crisis; Digital divide
- Initiatives designed to respond to urban problems
- Experimentation with technology to respond to problems
- Development of **community networks**
- Availability of funding
- Community informatics seen by diverse scholars as a unifying concept
- [Journal of Community Informatics](#) JOCI builds interdisciplinary scholarship

# CI: Interdisciplinary Framework Links Scholars & Practitioners

- Computer Science/Engineering as well as Social sciences
- Both academic disciplines & professionals
- Conferences such as those organized by Doug Schuler and others
- Journals—Like JOCI led by Michael Gurstein & Ann Bishop serve increase communication among scholars & between scholars & practitioners
- Books--e.g., *Community Informatics: Enabling Communities with Information and Communications Technologies* (Gurstein).
- Interdisciplinary funding opportunities
- CI Centers (University of Illinois a notable example)
- UM's Kellogg Chair in Community Informatics and SI's CI Specialization

# SI Community Informatics Faculty

- Steve Jackson
- Paul Resnick
- Dan Atkins
- Tiffany Veinot
- Joan Durrance

# Community Informatics Current & Former Doctoral Students

- Kate Williams (now at Illinois-ICT use)
- Erik Johnston (now at Arizona State)
- Maria Souden (has taught the CIC seminar; research now chronic illness info)
- Dana Walker (civic engagement-Fellow at Kettering)