

Creating the Intelligent Community



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Did you know...?

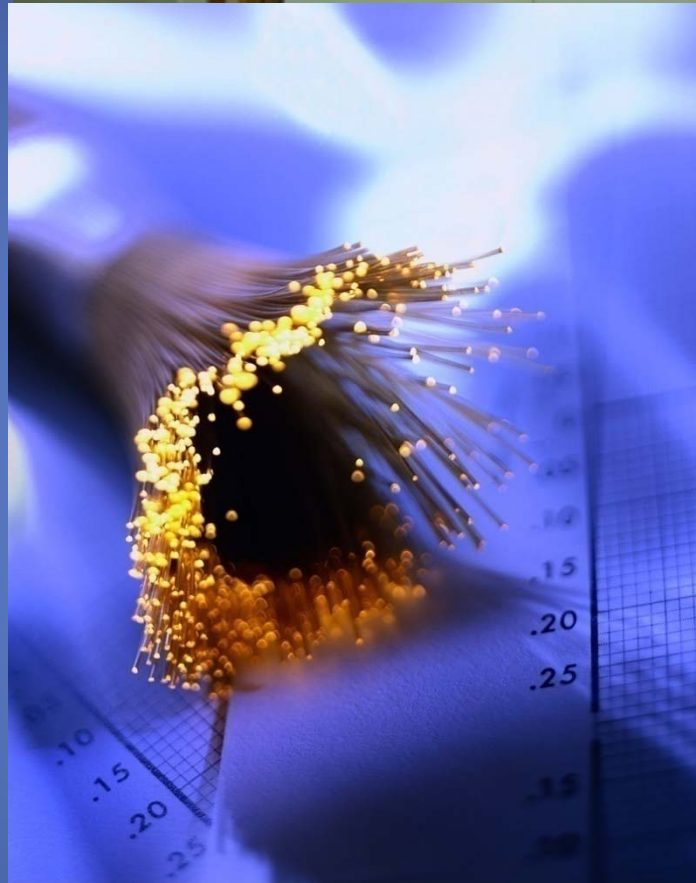
<http://www.youtube.com/watch?v=nUnA7HzGFbo>

So...

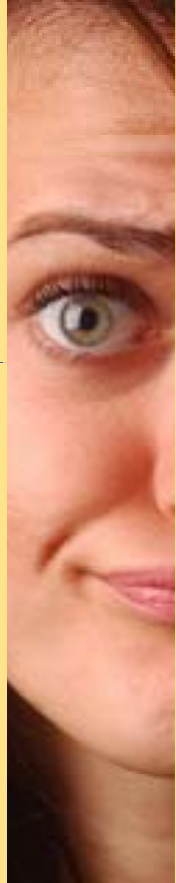
What the heck is an
intelligent community?

Well...
Let's start with what it's
not.











What
makes
intelligent
communities
intelligent?

Three things

What they do

How they do it

Why they do it

Why they do it


How they do it

What they do



Why they do it

How they do it



**B
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**KNOWLEDGE
WORKFORCE**



INNOVATION



**M +
A
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C
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N**



DIGITAL INCLUSION

What they do



What they do

How they do it



Why they do it

How they do it

Why they do it

**Intelligent communities
don't trust to luck.
They make their own.**

How they do it

What they do



Why they do it

Study and plan
Implement programs
Figure out what's working
Fix or stop doing what's not

How they do it

What they do



Why they do it

Strong leaders
who aren't afraid to
collaborate

government
+
business
+
institutions

How they do it

What they do





What they do

How they do it

Why they do it

Why they do it

What they do

How they do it

Why they do it



What they do

How they do it

Why they do it





That's **what** intelligent
communities do...
how they do it...
and **why**.

Community Examples

Cleveland, Ohio

Commitment to “ultrabroadband”

Moncton, New Brunswick, Canada

Railroad town turns to ICT

Bristol, Virginia

Battling for broadband, building a new economy



Cleveland, Ohio



- Economic powerhouse in Industrial Age where Rockefeller made his first fortune
- Industrial decline, rising unemployment, racial unrest peaked in 1978 city bankruptcy
 - By 1999, one of America's poorest cities; 47% of children living at or below poverty line
 - Descendants of 19th Century entrepreneurs took their money with them to the suburbs
- Typical downtown revitalization efforts produced limited success
- But...strong nonprofit institutions led the drive for meaningful change



Cleveland, Ohio



- Universities, community colleges, economic development agencies, hospitals and city formed OneCommunity nonprofit
 - Deployed cooperative ultrabroadband network by convincing carriers to donate unused dark fiber in exchange for opportunity to provide last-mile
 - Members receive unlimited bandwidth at flat annual cost
 - Brainchild of Lev Gonick, CTO of Case Western Reserve University; implemented by former tech executive and venture investor Scot Rourke
- Applications
 - HD videoconferencing connects Cleveland Clinic doctors to city schools
 - Voices & Choices 18-month campaign to engage community leaders in strategy



Cleveland, Ohio



■ Rebuilding an entrepreneurial culture

- **Jumpstart** public-private partnership provides start-up capital to new businesses, acts as conduit to private risk capital for later stage funding
 - Ranked it 9th most active among venture firms in 2006
- Hospitals & universities formed **BioEnterprise** to business formation, recruitment and acceleration for medical device, biotech and health care service firms
 - Since 2002, has created, recruited or accelerated +60 companies, helped attract US\$565 in funding and concluded over 225 tech transfer deals

■ Case Western digital divide research

- Extending campus network into poor neighborhoods, student and instructor research into how broadband can combat entrenched poverty



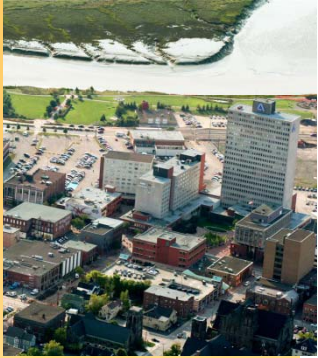
Moncton

- Rural city of 125,000 in New Brunswick, Canada
- “Railroad town” whose economy died in 1980s
- Rebuilt prosperity from the ground up
 - Partnerships with neighboring cities and Province
 - Shared services, shared infrastructure investment
 - Targeted hot opportunities
- Call center boom – bilingual advantage
- Partnered with Provincial and Federal govts. on start-up funding & talent retention
- Telecom cluster spurred home-grown ICT entrepreneurs





Moncton



- By 2006, employment increased
 - 300% in ICT companies
 - 153% in graphic design & illustration
 - 43% for writers and translators
- New Brunswick had net loss of 3,900 jobs 2001-2006
 - Moncton had net gain of 6,900
- Success stories
 - Local video game repair guy went on to create GTECH video lottery machine; company acquired by world's largest lottery company, Lottomatica
 - PropertyGuys turned “do it yourself” home sales into nationwide franchise



Bristol, Virginia



- Rural city of 17,500 with municipal electric utility
- Bristol Virginia Utilities (BVU)
 - Built fiber-optic backbone 1998 to improve communications & control of grid
 - Extended to schools and government offices in 2000 to reduce costs and expand capabilities
 - Responding to demands of businesses & citizens, began offering FTTP service, OptiNet, in 2001
- Let battle commence
 - Carriers convinced PUC to enforce Virginia law barring municipalities from telecom
 - Bristol lawsuit forced state legislature to bring law into compliance with US Telecom Act of 1996



Bristol, Virginia



■ The battle continues

- Cable TV provider convinced PUC that BVU could not offer TV service
- Bristol lawsuit and lobbying forced legislature to pass legislative and charter changes
- Telco incumbent accused BVU of cross-subsidizing telecom services from electric rates
- PUC ruled against the complaint
- Three years and \$2.5 million in legal fees later, BVU could offer triple-play services inside the city and voice-data regionally

■ Within 5 years, BVU reached financial self-sufficiency and 62% market share



Bristol, Virginia



■ Economic impacts

- OptiNet customers saved estimated \$10 million in first five years
- Broadband build-out created +1,000 jobs in seven counties worth \$37m in annual payroll, attracted \$50m in new private investment
 - Extension of network into neighboring counties convinced Northrup Grumman and CGI to build multi-million-dollar facilities there, employing Bristol residents and others
- University of VA created undergraduate software engineering program
 - Return to Roots campaign attracts emigrants to new job opportunities in the region
- Network delivers adult education (GED qualification), access to library materials, healthcare data services

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