Netspace Urbanism:

Towards a theory of the sociological dynamics of netspace

W. Reid Cornwell Ph.D.

And

Jonathan R. Cornwell

The Center for Internet Research

Abstract

We submit that scientific research on the Internet is adrift because the field lacks a widely accepted conceptual framework including metaphors that accurately reflect the complex reality of the subject. It is also our belief that majority of scientific literature reflects an underlying assumption of the Internet as a phenomenon unique and fundamentally different from that of the "real" world. In this paper, we question whether in fact the Internet is fundamentally different and offer an existing framework which we feel can organize the diverse research to date and stimulate new research from a firm foundation. This framework is the field of urban sociology in general, and urbanism, political economy and subcultural theory in particular.

Introduction

The word "Internet" is commonly used to encompass infrastructure, content and social phenomena. In fact, the word "Internet" most properly and precisely refers to the infrastructure of computers, connections and protocols. In this paper, we will use the word "netspace" to refer to the milieu created by the Internet and "realspace" to refer to the physical world. In using these words, we wish to emphasize a parity and duality between these two worlds that, by way of analogy, is like the two sides of a coin. In addition, netspace is a word is less burdened by cultural loading than other words such as "cyberspace".

The essence of our proposal is that netspace is quantitatively and qualitatively urban in nature. Any valid measure of the urban ecology; any theory, hypothesis or concept employed to study and understand urbanization and urbanism; and any phenomenon that might be found within a realspace city will have its counterpart in netspace minus, of course, those aspects of the urban realspace that depend entirely on physical space and sensory information beyond sight and sound. The weak form of this argument is that netspace is an extension of urban realspace; that "urban" is a qualitative metaphor for the characteristics of netspace. But while the weak form of this argument may be more palatable to some, we are in fact proposing that netspace is not just *like* urban realspace but *is* urban realspace.

Karl Marx, Emile Durkheim, Max Weber, Georg Simmel and other early sociologists spoke of "Urban" as an adjective, and in this context becomes classification, of human technology. Cities are a complex manifestation technology, a point that is both easy to miss and easy to forget because while innumerable technologies make cities possible, the real action is at the holistic scale.

Occam's razor states that the explanation of any phenomenon should make as few assumptions as possible, eliminating, or "shaving off," those that make no difference in the observable predictions of the explanatory hypothesis or theory. In short, when given two equally valid explanations for a phenomenon, one should embrace the less complicated formulation. The principle is often expressed in Latin as the **lex parsimoniae** (law of succinctness):

entia non sunt multiplicanda praeter necessitatem,

which translates to:

entities should not be multiplied beyond necessity.

(That is, the fewer assumptions an explanation of a phenomenon depends on, the better it is.)

Furthermore, when multiple competing theories have equal predictive powers, the principle recommends selecting those that introduce the fewest assumptions and postulate the fewest hypothetical entities. It is in this sense that Occam's razor is usually understood. Wikipedia (untrusted)

The application of Occam's Razor in this context can be summarized by Wellman's 2001 statement,

"Computer networks are inherently social networks, linking people, organizations, and knowledge. They are social institutions that should not be studied in isolation but as integrated into everyday lives." Wellman (2001)

Just as "Urban" refers to the milieu created by urban technology, Netspace is the milieu created by Internet technology.

What is the Internet?

This is not a trivial question. In popular speech and writing the terms "**Internet**", "**WorldWideWeb**", and "**Cyberspace**" are used interchangeably. There are distinctions between these terms that are important to this discussion. The **Internet** is a rigidly defined entity. Simply put: **The Internet is a global network of computers and connecting technologies (hardware and software) bound and enabled by software protocols (TCP/IP)** I.e. It is an electro-mechanical tool, nothing more.

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Confusion has arisen over the nature of societies because of the difficulty of observing, particularly seeing change over time. As a result, biological and mechanical metaphors were perceived as apt because certain features of societies were believed to be less dynamic, even fixed, than is actually the case. In the shorter time scales of the present world, seemingly static social features are changing at rates within the limits of human perception. This provokes another illusion: the belief that something fundamental has changed when, if fact, nothing other than the time scale in which events occur is different.

Technology's main effect on humanity is phenotypic not genotypic. In the time scales of which sociology is mainly concerned, "human nature" can safely assumed to be fixed, allowing, of course, for variation within populations and across the whole species. Within the time scale of the Internet, this is absolutely true as not one full generation has elapsed. If the sociology of netspace is different than realspace, the answer for why must derive from the technology.

Internet is a relatively new part of the urban technology package.

Technology that changed movement of people, material culture and information has changed the spatial arrangement of human settlement.

Technology that has increased the production of raw material and finished goods has also changed settlement patterns.

Together, the technology of transport and production fundamentally altered human spatial arrangement, first by enabling higher population densities, second by enabling a redistribution and spreading of the urban environment.

The Urbanism of Louis Wirth

Urbanism of the City Wirth (1938)	Urbanism of Netspace Megatropolis
"For sociological purposes a city may be defined as a relatively large, dense, and permanent settlement of socially heterogeneous individuals."	"For sociological purposes Netspace is defined as a large, dense, and permanent settlement of socially heterogeneous individuals."
U.S. Census 2,500 or greater	U.S. census (2,500 or greater)
Density	Density
Heterogeneity	Heterogeneity
specialization	Specialization
Replace primary relationships with secondary relationships.	Replace primary relationships with secondary relationships.
Workplace dissociated with residence	Workplace dissociated with residence
Rapid tempo	Rapid tempo
Complicated technology	Complicated technology
Frequent close physical contact	Frequent close (temporal) contact
Social distance	Social distance
Frequent movement	Frequent movement
Frequent turnover in groups	Frequent turnover in groups
Not a true neighbor	Not a true neighbor
Mutual dependence without intimacy	Mutual dependence without intimacy
Social organizations with characteristic social structures	Social organizations with characteristic social structures
The larger the city the more the specific characteristics of urbanism is apparent	The larger the netspace the more the specific characteristics of urbanism is apparent
"Being reduced to a stage of virtual impotence as an individual, the urbanite is to exert himself	Being reduced to a stage of virtual impotence as an individual, the netspace "urbanite" is to

by joining others of similar interests into organized groups to obtain his ends"	exert himself by joining others of similar interests into organized groups to obtain his ends"
"Social control in the city should typically proceed through formally organized groups."	Social control in the netspace city should typically proceed through formally organized groups."
"With modern civilization we must look for symtoms wich will indicate the probable future development of urbanism as a mode of social life."	In netspace the development of urbanism has emerged as a way of life

The Theory of Netspace Subculture

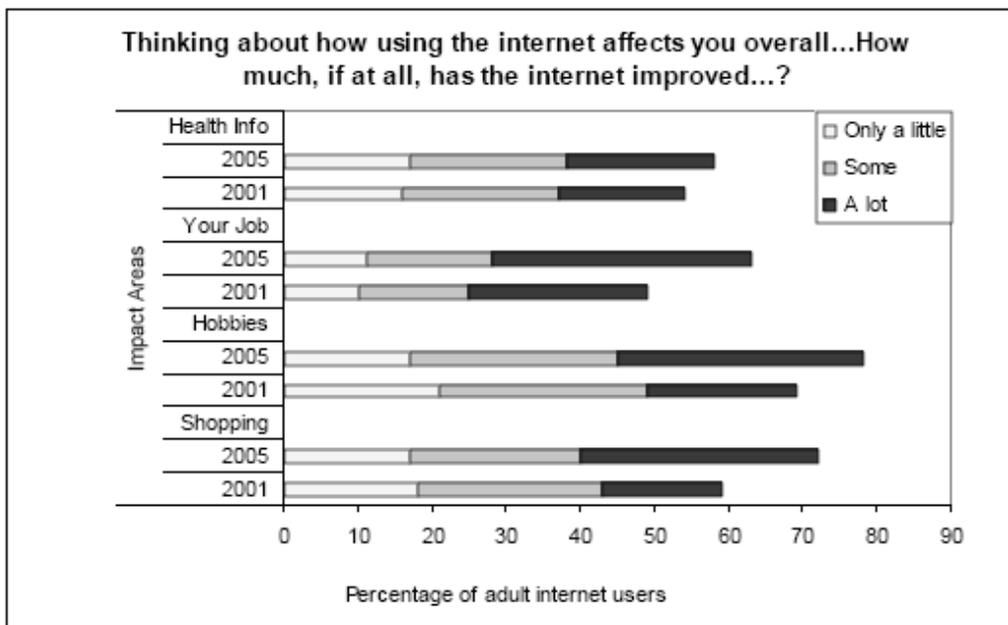| **Subculture Theory** Fischer (1975)	**Netspace Subculture Theory**
Population concentration generates subculture (cities)	Concentration of netspace users has generated virtual communities
Subcultures are unconventional	Virtual communities are unconventional
Cities are interconnected social networks	Netspace is interconnected social networks
A subculture:	Virtual communities are characteristically subcultures
is large set of people who share a defining traits,	is a large set of people with a defining traits
Associate with one another	Communicate with one another
Are members of institutions associated with their defining traits	Are members of institutions associated with their defining traits
Share a set of cultural tools	Share a set of tools
Take part in a common way of life	Take part in a common way of life
Attributes are a matter of degree	Attributes are a matter of degree
Boundaries are vague and overlapping	Boundaries are vague and overlapping
Subculture life is unconventional	Netspace life is unconventional

Axioms:

Axiom 1:	The Internet provides the boundaries for NS
Axiom 2:	The smallest unit of Netspace is 2
Axiom 3:	NS is an extension of RS
Axiom 4:	For behavioral analysis netspace is indistinct from human social space.
Axiom 5:	NS is subject to the same social principals as RS
Axiom 6	Characteristics seen as unique in NS have their roots in RS
Axiom 6:	Individual characteristics (psychological) that exist in RS exist in NS
Axiom 7:	RS and NS interact and influence reciprocally (RealSpace ↔ Netspace)

Propositions:

Proposition 1:	NS as a means of interaction and communication is analogous to a city. **RealSpace Humanity → Global Village Netspace → Global City Netspace → Netspace Subculture**
Proposition 2:	When the denisity of netspace reached a critical mass, netspace subcultures propagated.
Proposition 3:	Netspace subcultures coalesce around individual traits held in real space.
Proposition 4:	Virtual Communities are NS subcultures.
Proposition 5:	As density increases netspace social norms and rules emerge as elements of intra-group social control.
Proposition 6:	The greater the density the greater the formal social control.
Proposition 7:	Greater control produces categorical metaphors for deviancy.
Proposition 8:	Deviants are thus manufactured and categorized.
Proposition 9:	Density of deviancy calves new NS subcultures

Proposition 10:	Netspace/realspace equivalency
	
	    Constancy of human "nature"; technology's (lack) of influence on Human nature
	
	    Unmooring from time/space, five senses and interior experience quite reasonably leads to the incorrect impression that netspace is different

Proposition 11	Network model of sociology Artificial separation of environmental contingency (social ecology) from agent-driven determinism (political economy) A network model in inherently ecological
Proposition 12	Priority of time over space Conservation principle Increase density, increase reactivity
Proposition 13	Netspace ecology an inherently unstable equilibrium
Proposition 14	The equivalency of machine protocols to social norms in netspace
Proposition 15	Dimensions of networks Time Relatedness Degree of separation Instrumentality Serendipity

Thinking about how using the internet affects you overall...How much, if at all, has the internet improved...?
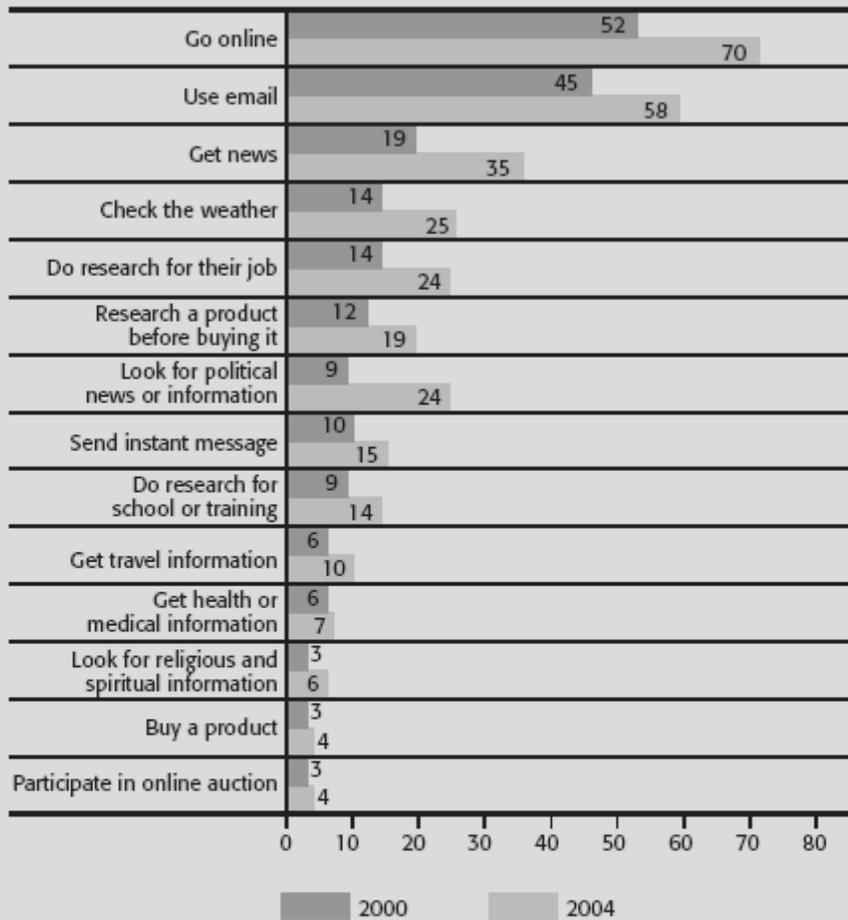
Source: For 2005 data, Pew Internet & American Life Project November-December 2005 Tracking Survey, n=1,931 adult internet users, 18 and older. Margin of error is plus or minus 2 percentage points for results based on internet users. For 2001 data, Pew Internet & American Life Project March 2001 Longitudinal Callback Survey, n=862 adult internet users, 18 and older. Margin of error is plus or minus 4 percentage points for results based on internet users.

EVER UPWARD: HOW USE OF THE INTERNET HAS GROWN

## Growth of Activities on the Internet in Recent Years

ON A TYPICAL DAY, THIS IS HOW MANY ADULT AMERICANS DO THIS ACTIVITY, IN MILLIONS

Activity	2000	2004
Go online	52	70
Use email	45	58
Get news	19	35
Check the weather	14	25
Do research for their job	14	24
Research a product before buying it	12	19
Look for political news or information	9	24
Send instant message	10	15
Do research for school or training	9	14
Get travel information	6	10
Get health or medical information	6	7
Look for religious and spiritual information	3	6
Buy a product	3	4
Participate in online auction	3	4

This is How Many Americans Have Ever Done These Activities

97 million Internet users have used government Web sites
93 million have used the internet for health or medical purposes
84 million got political news and used the internet to participate in the 2004 campaign
83 million have bought products online
82 million have used the internet for religious and spiritual purposes
48 million have used email for spiritual or religious discussion
(many were making prayer requests or responding to prayer requests)
38 million have sent email to government officials to try to influence policy decisions.
36 million have become members of online support groups

Source: Pew Internet Project. Totals are for Americans age 18 or older.

Percentage of U.S. Adults Online
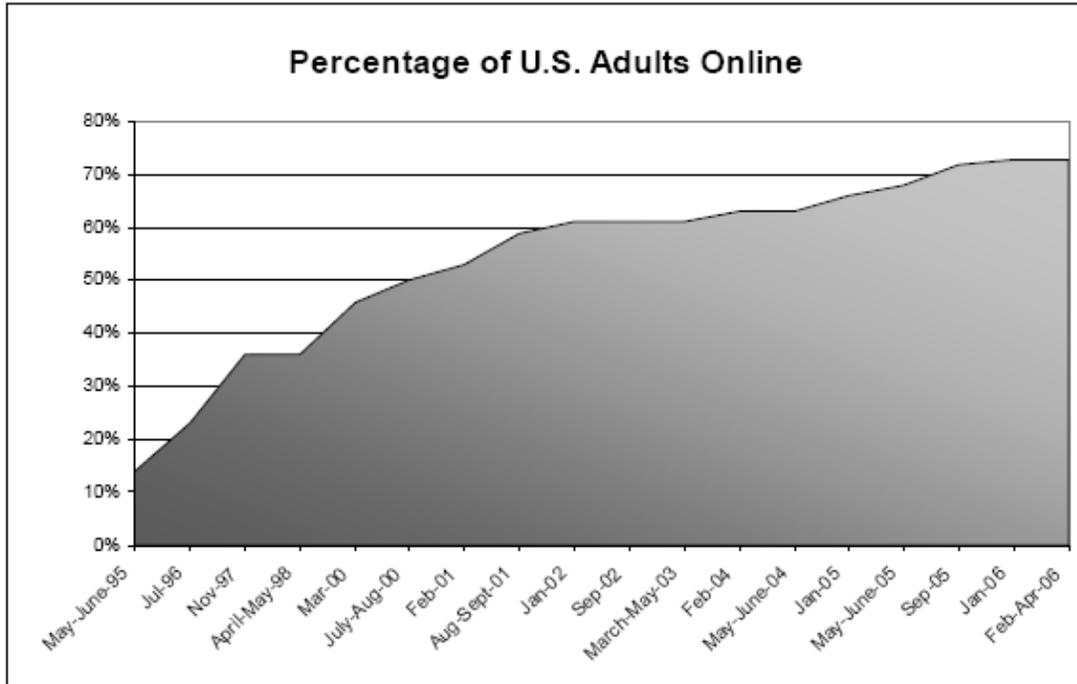
Source: Pew Internet & American Life Project Surveys, March 2000-April 2006. All surveys prior to March 2000 were conducted by the Pew Research Center for People & the Press.[2]

Discussion Points

If culture resides in the minds of the adherents and;

If Netspace resides in the minds of the minds of the netizens then;

All things being equal, Netspace behavior is not different than Realspace behavior and is normally distributed across the population.

As Simmel proposes the smallest unit of a community is a diad, and the most stable unit is a triad, then the most stable Netspace community is a triad.