

The road ahead

- 2/3 Term Exam: November 3: In-class written exam on material to date
- Major project or paper: due last week of class
 - May be creative or critical
- Smaller project or paper:
 - Exploration of topic relating to classwork and presented or discussed on the day of class
- Final exam at the regularly scheduled time

The Geo-Locative Image

Image as Place, Place as Image

Our exact coordinates:



Lat:

44.457779

44:27:28.004N

Lon:

-093.174773

93:10:29.183W

Convergence: Camera +
cell phone + computer +
GPS

Cyber-space

- Cyber- [Greek: steer, guide, control]
- Space: Evolving Conceptions
 - Cartesian space: coordinates, grids, space as abstract container
 - Network space: growing, expanding, defined through relationship, space creating and displacing
 - Psychological space
 - Virtual space
 - Space + Time always bound together: Space as a function of time; time as a function of distance

Is there space in cyberspace?

- Neuromancer [Gibson, 1984]: First use of the term: a universe of digital networks, described as a battlefield among multinationals, the site of global conflict, the new economic and cultural frontier. A "dataspace" of software, that gives it physical dimension.
- "A a communications space made accessible through the global interconnection of computers and computer memories. Also as an interface to existing systems for creating and recording information, for communication and simulation. Now the primary medium for humanity's social memory." Levy

Space

- Historically we have thought of space as something to be charted and traversed. Explore, chart, travel...distances to be shortened with technology...trains, airplanes, teleportation. This is space as grid.
- But in space as network there is neither movement or travel. Data-space: suggests no location.
- Space is a powerful metaphor because it allows us to impose order on diverse and complex phenomena.
- Spatial metaphors pervade our vocabulary of cyberspace: "where do you want to go today?"

Virtual

- Usage: things simulated by the computer [virtual memory]
> things that really exist and are carried out by or with computers. Virtual tends to be used in reference to things that mimic their "real" equivalents.
- Dictionary: existing or resulting in essence or effect though not in actual fact, form or name. Computers: created, simulated, or carried on by means of a computer or network.
- Suggests that an entity is capable of engendering multiple manifestations at different times and places, without being attached or defined by any particular one. Individual manifestations can be actualized any number

Death of distance

- Measuring space by distance
- Challenge: moving mass [bodies & objects]
- Traditionally distance a function of time: "that's three days from here"
- Globe as a grid to be traversed more efficiently
- Industrial Revolution: new technologies to move us more rapidly through space

Technologies and distance

- Communication tied to transportation
- 1850: fastest technology of communication was with carrier pigeon—about 45 mph
- Telegraph makes communication electronic, but only along telephone wires and as single message, one to one
- Radio [only post-WWI] creates mass media in "real time"
- Television [1950] visual mass media often in "real time"—but still within limited broadcast networks
- Internet [1993] instantaneous communication, movement

Information & telepresence



- As information becomes a core "product" and as the net links everyone in a global grid of instantaneous communication, distance is eliminated. We no longer measure distance in time
- "If information from any point can be transmitted with the same speed, the concepts of near and far, horizon, distance and space itself no longer have any meaning...technologies collapse the physical distances, uprooting the familiar patterns of perception which grounded our culture and politics." [Paul Virilio]
- Telepresence will make human "presence" instantaneous anywhere on the globe: place and space are virtualized



Place-less space



- There is no empty space that contains the whole and arranges the parts. The web is place without space.
- We visualize cyberspace as a network of nodes, imagining the connection between as pathways, spacial distances.
- The web feels spatial because it's "place-ial", and because until now all our places have been in space.
- Web can't be used up or filled; not a container waiting to be filled; more like a book being written.



A "space" defined by interest



- "The web...reminds us that the fundamental unit of time isn't a moment, it's a story, and the string that holds time together isn't the mere proximity of moments but our interests in the story." [Small Things Loosely Joined]
- The web is defined by interest the way the real world is defined by accidents of geography.
- Hyperlinks are the geography of the web. Nearness is created by interest.
- Given network theory, you make things close by connecting them to major nodes.

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- Our media devices become "placial."
 - Distance is dying; but geography, it seems, is still alive and kicking.
 - User experience hides technical infrastructure, where geography still counts: from server farms to DSN nodes.
 - Mobile devices are re-integrate geography into the net
 - Wireless web will be a be where you are, know where you are web
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- ..towards an ‘outside’ view – a recolonisation of the real world, computers becoming invisible, mobile, networked and location aware, the real world augmented rather than simulated. People finding more outside than inside and developing sophisticated information based relationships to exterior spaces, computer games moving outside, technologies facilitating the tagging and annotating of spaces, places, people, animals and things, the emergence of new forms of spontaneous externalised real social interaction, constructs drawn from dreams and myth shape the outside more tangibly than ever before.
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- The pure abstraction of the internet is very attractive but the plain fact is that we are active parts of the network and essentially earth bound spatially orientated beings. Instead of disappearing into the world of bits anytime soon the world of bits is going to have to come out into the world.
 - So far computers have kept people indoors sitting in front of screens. The latest stage in computer evolution will see the next generation of kids running through the space with networked location aware computers [with short acronyms] strapped to them.
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- The linking of a location aware device (e.g. something with GPS functionality), with a handheld computer
 - As well as facilitating direct contact between people, location aware devices will allow people to invisibly mark, demarcate and annotate spaces. If I want to add a note to a place, I don't have to physically mark it, I can write a note, add the geographical coordinates of where I have been.
 - Anything left can be made visible to all, or to user specified individuals and groups
 - Information (textual, audible or visual) can be bound to specific places. • an alternative or supplement to permanent visual signifiers (e.g. signs, clothing, advertising).
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- Individuals can utilise new forms of community based on augmented
 - Information (textual, audible or visual) can be bound to specific places.
 - An alternative or supplement to permanent visual signifiers (e.g. signs, clothing, advertising).
 - Places can have histories ‘attached’ to them (i.e. the collection of notes left at a given place sorted according to when they were left).
 - Inanimate objects can become more animate (if you know where a tree is and you know when someone is walking past it you could make it burst into song).
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New Digital Image New Digital Image New Digital Image New Digital Image

New Geography

- Topophilia: range of experiences and imaginative structures that relate individuals and groups to places
- Life worlds: emerging concept in landscape representation
- Psychogeography
- Location-aware
- Everyday geography
- Traditional geography [objectifies people and landscape] vs. humanistic geography:[human agency, and how

Swarming [Flash mobs]

- Swarming created not only a new kind of protest, but a new kind of protester...Cell phones drove political change in that upheaval the way fax machines enabled Tiananmen Square, cassette recordings fired the Iranian revolution, photocopiers fueled the Polish Solidarity uprising and short-wave radios aided the French Resistance



→ Location-aware technologies

Elements of Place

- Locale: settings
- Location: geographical location and definitions
- Sense of Place: Local or personal structure of feeling

WorldBoard [IBM]

- Place-based information grid laid over biological vision
- Dataspace imposed on physical space
- Imposition of culture on nature
- Every place has a message

Marc Tuters

- Geographiti

Three key concepts

- Proximity
- Tracking
- Dead Reckoning