Space, Location and Knowledge.

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Household and Virtual Community

Theory to Practice

- **Webber's 'non-place urban realm**
- **Pods and Cushicles**
  - *Archigram, '60s*
- **Community Cable**
  - *Fishermead, MKDC '70s*
- **Fibre-optic to Kerb**
  - *Cordeaux Heights '90s*

The Permeable Household

- **Pre-industrial Household**
  - *locus of production*
- **‘Modern Household**
  - *locus of reproduction and consumption*
- **Post-industrial Household**
  - *locus of production and consumption*

Framing by Design: Interventions

C19 Domestic + Productive technologies developed in parallel

C20 Gendered domestic techno9lo9gies

- *brown goods - consumption*
- *white goods - reproduction*
- *UK Parker Morris housing standard*
  - *– a gendered script*

C21 Domestication of the productive technologies of the new economy

- *domestic SETI, domestic molecular modelling*

Framing by Design - Inspirations

- **1984 William Gibson *Neuromancer***
  - *cyberspace*
- **1988 Bruce Sterling *Islands in the Net***
  - *off-shore data warehousing*
- **1995 Neal Stephenson *Snow Crash***
  - *sovereign suburbs*

Technologies and Permeability

- **White Transit/Toyota Van**
  - *TCF Homeworking*
- **Telephone**
  - *home sales domestic-domestic*
- **Answerphone**
  - *asynchronous communication existing mode*
- **Internet**
  - *White collar homeworking*

Framing by Technology

- **Prison as Workplace**
  - *credit checks,*
  - *hotel reservations*
- **Home as Prison**
  - *electronic confinement*

Ann Aungles

Perils of Prediction

- **Every major US city will have a telephone**
  - *quoted Marlin 1988*
- **John Brunner *Shockwave Rider* 1975**
  - *Internet confined within US national boundaries*

Global Production/Global Consumption ?

- **Waves of capitalist development operating on a world-wide scale (David & Wheelwright, 1989).**
- **Unevenness of development within and between economies threatening sustainability (Welford, 1995)**
- **Three dominant super-regions, NE Asia, North America and Western Europe, the 'triad' described by Ohmae (1990)**
- **The rapid cross-diffusion of innovations within an emerging globalised economy dependent on the widespread use of information and communication technologies.**

Realignments in a Global System

- **Post-Cold War Era,**
  - growing global economic integration
  - disparate national and regional cultures increasingly interacting within networked and globalised organisations.
  - facilitation through information technologies
- **Unevenness of development threatens prospects for sustainability**
  - complex layering of labour markets,
  - internal and external to the developed economies driving this process.

Textures of Globalisation

- **Differences within individual national states**
  - as significant that those between developed and developing states.
- **Differences between centre and periphery, between large and small scale economic activity**
  - central to an understanding of the impact of globalisation and its supporting technologies.
- **In the post-cold war era difference and diversity are resources**

  (Delamaide; 1994, Ohmae; 1995).

Dynamics of Globalisation

- **Newly industrialising countries**
  - catching up
  - development and growth synonymous.
  - sceptical of higher standards than applied by established economies at the equivalent stage
- **Excluded economies**
  - difficulty maintaining modest economic objectives.
  - excluded from policy making processes
  - no influence over the emerging global information system
  - reducing ability to negotiate sustainable exploitation of their own resources

Chains versus Networks

- **Global Production Chains replaced by Global Production Networks**
  - *linkages among members of the Triad account for the majority of global trade (Dicken, 1998)*
    - *internal trade still dominates many major industrial countries (Krugman, 1996)*
    - *substantial areas and populations are excluded from the global cycle of technical innovation and improvement*
- **Network Organisations**
  - *flexible coalitions*
    - *within and between existing corporations (Castells, 1996)*
    - *between independent partners (Inoue, 1998)*

Repositioning Across the Web

- **The problems of technological leadership differ from those of catch-up**
  - *Organisational isomorphism (Orru, Biggart and Hamilton, 1991)*
    - *European and North America emulate aspects of Asian strategies*
  - *Creative Milieu (Castells ,1996)*
    - *captures the complex web of relationships necessary to the support of genuine innovation*
    - *complementary regional associations versus national boundaries (Ohmae, 1995; Delamaide, 1994)*

Balancing Development

- **Organisation plus Technology**
  - *re-organisation can transform efficiency and effectiveness (Kaplinsky & Posthuma, 1992)*
    - *– capital is still required for cutting-edge performance*
  - *differences within individual national states may be at least as significant that those between them (Dicken, 1998)*
- **Moving along the Value Chain**
  - *higher value-added activities sought*
  - *distinction between products & services is eroding*
    - *– closer adjustment to cultural variation among users & customers is needed*

Design Paradigms & Paradigm Shifts

- **Three Stage Model of Design**
  - *Divergent Search*
  - *Transformation*
  - *Convergence*
- **Waterfall Models**
  - *Stages and re-cycling*
- **Network Models**
  - *Assembling available & appropriate resources*
  - *Bricolage*

Community, Place and Network

- **"city as communications system"**
  - *(Webber; 1964, p.84).*
- **(Planners) "share a conviction that the physical and locational variables are key determinants of social and economic behaviour and of social welfare" (Webber; 1964, p.85).**
- **"dynamic, locational patterns of human communication that occur through space but transcend any given place" (Webber; 1964, p.90).**

Three Components of (metropolitan) Social Structure

- **Planning must deal effectively with :**
  - *1: spatial flows of money, people and goods*
  - *2: location of the physical channels and adapted spaces that physically house activities*
  - *3: locations of activity places*
    (Webber; p.96)
- **"(p)atterns of functional interdependence will become increasingly complex at the same time that major developments in transportation and communications systems will be opening up unprecedented possibilities for whole new spatial patterns." (p.107).**

Non-place Community

- **Accessibility, rather than the propinquity aspect of "place" is the necessary condition for this form of community (p.109).**
- **Current conditions allow access to be non-physical**

Access from the Margins

- **Divisions in both developed and developing countries present the less advantaged actors with a major problem**
  - *accessing or utilising technologies which have been shaped by other players towards the support of different priorities.*
- **Existing inequalities will be reinforced unless access to these technologies can be achieved.**

Windows of Opportunity

- **How can “small” players influence an emerging new "techno-economic paradigm" (Perez, 1985) ?**
- **A window paradigm for globalising information systems**
  - *using available technologies without regard for their underlying assumptions*
- **“Windows of opportunity” may be inadvertently closed by the momentum of mainstream technical development.**

Computer Bulletin Board (Earls 1990)

- **Use by population with severe difficulties with speech production to interact freely in an electronic community**
  - *maximised use of available mainstream technology*
  - *minimised use of relatively expensive small volume specialised hardware and software*
  - *aligned with emergent de facto standards.*
- **Window of opportunity**
  - *narrowness of communication bandwidth concealed identifying characteristics of the user group*

Tanami Network

- **Supporting the Aboriginal outstation movement.**
  - *traditional community decision-making without the need for physical proximity facilitated by domestic satellite communication systems*
  - *broader rural community benefits from the same technology*
    - remote provision of specialist support for local expertise, for example, in medicine and health care
- **Window of Opportunity**
  - *government desire to promote a technological paradigm*

The Next Window

- **Next Generation Mobile Communications**
  - *Switching from geostationary Earth orbits (GEOs) to medium Earth orbit (MEO) and low Earth orbit (LEO) satellites*
  - *Eg proposed Teledesic system*
    - *840 broadband LEOs communicating directly with individual personal computers*
- **Social and Institutional Paradigm Shifts must accompany Technical Paradigm Shift**