Networked strangers in the neighbourhood: Empirical evidence from Switzerland and policy implications

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June 2007
The planning fetish „neighbourhood“, „community“
New Haven: 1913 density of churches and similar
New Haven: Residents per retail store

![Graph showing residents per retail store and share of arterial stores over time.](image)
Definition of social network

The topology of a social network describes

- Which person/firm (node) is linked to which other persons/firms
- By contacts (links) of a certain quality (impedance or cost)

Closeness ~ 1/Impedance
Speaking about spatial density and social connectivity

Dense/tight

Dense/loose

Sparse/tight

Sparse/loose
Reasons for dense/tight networks

Cost of contact:
- Generalised costs of travel
- Generalised costs of communication

Employee centralising technologies of production

Enforced community:
- Joint and devolved local tax responsibility
- (Past) attendance obligations to locally-based groups (e.g. church, school, military)
- (Official) neighbourhood committees
Social capital … and social networks

Many approaches:

• Gains from a position at a structural whole of the total social network

• Gains from ascribed solidarities (generalised trust)

• Gains from joint experience and skill
Definition of (personal) social capital

Stock of joint abilities, shared histories, understandings and commitments enabling the

skilled performance

of joint activity, even at a distance
Assumptions

• The return on the social capital is above the average hedonic and/or monetary gain from joint activity
• Social capital needs refreshment through joint activity, in particular face-to-face meetings
• People do disinvest or invest

• One can draw on it in terms of “favours”

• Social capital does not imply trust
  (Trust: Confidence that a third party will keep my interest in mind and selflessly act on it)

• Social capital does not necessarily imply the spatial neighbourhood of the persons involved
Trend in travel time: World

Coast and sailing boat until 1840

Steam ship and locomotive, 1840 - 1930

Propeller aircraft, 1930-1950

Jets, from 1950

Dicken, 1998
Trend in travel times: Switzerland (1950 and 2000)
Trend of the quality-adjusted price of Swiss cars

Frei, 2004
Raff und Trajtenberg, 1990

Qualitätsbereinigter Preisindex
(2004 = 100) [%]

Jahr
Trend of the gasoline price in Switzerland

- **Real in Preisen von 2004**
- **Nominal**
Trend of the price of US long-distance calls

Index [1995 = 100]

- US International and interstate average revenue per minute
- BLS Long distance index
- BLS Wireless (Dec. 1997 = 100)
Current patterns: Swiss in-commuting catchment areas

Botte, 2003
Current patterns: ETH Zürich employees (2006)
Current patterns: Weekly meeting of service clubs
Number of contacts reported (289 Zürcher)
Current patterns: Distances and contact frequency

Mean great circle distances [km]

Mean number of contacts

Contact
Friends
Family
Work mates
Current patterns: Distance to contacts

615 observations <= 1 km

Frequency

Great circle distance [km]

0 1 10 100 1000 10000 100000

0 50 100 150 200 250

22
Current patterns: Share of contacts within 2.5 km
Current patterns: Modes of contact
The networked actors have chosen:

- To mix local and non-local contacts
- Maintain face-to-face contacts across the whole distance range
- Other modes of contact complement/substitute
- Maintenance of the personal social capital needs „leisure“ travel
- Current levels of social capital are tied to current cost structures
Implications of the non-local-bias of the networks

• Stronger selectivity of social contacts

• Higher „productivity“ of the social contacts maintained

• Less need to risk „investment“ on new contacts
Implications of the non-local-bias of the networks

- Local social action is more difficult to maintain or initiate
- Shift from a municipal to a regional understanding of “place”
- Recruitment biases for local (regional) policy makers
Implications of the non-local-bias of the networks

• Defines relatively high levels of skills and income to be perceived as being able to „keep up with Joneses“

• Increased chances of involuntary segregation („social exclusion“)

• Less efficient local labour markets, more efficient regional labour markets
Implications of the non-local-bias of the networks

Likely lack of knowledge of immediate neighbours
Likely perception of a lack of safety in the immediate environment
Lack of a basis for confidence about the immediate environment

Local anomie should c.p. result in:

• Investment in personal safety (car ownership, „gating“, „fortification“)
• Reliance on market-produced third-party safety provision (policy, private security services)
• Reliance on market-produced third-party service provision (home care, longer opening hours of stores)
Some transport/land use policies discussed
Encouragement of infill development/densification

Impact of social network geographies

• None
Imposing full efficiency and zero-emission vehicles

Implications for social network geographies:

• None

Support policies:

• More parking provision (for shared cars)

• Tax-supported accelerated depreciation of fuel stations
Revenue-neutral CO$_2$ taxation or rationing

Implications for social network geographies:

- Lowering mean distances between contacts
- Increase duration of face-to-face visits, especially for long-distance visits

Support policies with regards to social capital creation:

- Support of local social organisations (and of its infrastructure)
- Regulatory support of meeting places
- Holiday rules/frequency of long weekend
Revenue-neutral travel demand management

Impact on social network geographies:

• Slight increase in mean distances, as reliability improves
• Longer durations of visits

Support policies with regards to social capital creation:

• None
An overview of the underlying hypotheses

Variables in red are associated with externalities


References and literature

