Digital Divide, Uneven Accumulation of Social Capital, and Community Involvement

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Sources

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Sources (Cont.)

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- Gustavo Mesch and Ilan Talmud (2010). "Internet Connectivity, Community Participation, and Place Attachment: A longitudinal Study, Amerian Behavioral Scientist. 53 1095-1110. 28
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Theme

Digital Divide => Internet use =>

Social capital => uneven civic engagement

Previous Talk's Outline

- Internet as a Socially Embedded Sphere
- Theories of CMC
- Friendship Formation and Relational Quality
- Tie Maintenance

Previous Postulates

- A synoptic view of dual embeddedness
- Social structural arguments
- Mutual effect of offline and online ties
- Social mechanisms (homophily, transitivity, etc,)

This Lecture is about

- Digital Divide
  - Access, Use, Literacy, Motivation, Social Capital.
  - Effect of occupation, class and status
  - Effect of ethnicity
- Inequality in Social Capital and Resource Acquisition
- Implications of Social Capital for Civic Engagement

Current Postulates

As the internet is socially embedded,

Digital Divide is linked to general inequality

Digital Divide => Internet use =>

Social capital => uneven civic engagement

- Digital Divide direct effect
- Digital Divide indirect effect

Digital Divide

Not to be confused with:

- Hierarchy in peer production
- “Natural” preferential attachment

Kinds of Digital Divide	*Description*
Access	**The degree to which a person has access to ICT at home, at work, or in a public place**
Use	**Kinds of use, frequency and duration of usage**
Digital literacy	**The degree to which a person is competent in ICT, computers, and hyper-textuality**
Motivational access	**Attitudes, anxiety cultural scripts**
Multi-Dimensional	**A combination of all three**

Causes for Digital Divide

Causes and Barriers	Deprived Category
Gendered society Age and Generation	Female (dissipating) Old
Education, ethnicity, class, socio-economic status	Low educated, lower socio-economic households, minorities
Technological infrastructure	Low-income countries
Language barriers	Non-English speakers (dissipating)
Regional differences in development: Spatial divide	Peripheral regions

Prospective Social Consequences of Digital Divide

Theory	Prediction
Amplification	**The rich get richer; long tailed "free scale", "Mathew effect"; digital divide augments other forms of social inequality, especially education and skills.**
Normalization	**Low-cost, ubiquitous, versatile, user friendly ICT can diminish other kinds of social inequality**

Amplification: (van Dijk, 2006).

Knowledge acquisition process, especially by means of digital information, is a self-reinforcing cycle (Parayil 2005).

Differential acquisition of computer skills, online use, and Internet experience can produce a dramatic digital divide in the future, especially in resources needed for occupational skills

Normalization: (Katz and Rice, 2002)

Extensive adoption of the Internet may diminish digital gaps to a minimum, as it happened with phone use and with some other forms of digital skills.
Emancipatory power: (Bastani, 2000).

Examining Digital Divide in Israel

Israel as a Deeply Divided Society

- Ethno-national segregation (residence, occupation, marriage, friendship).
- Human capital factors
- Mobility Occupational structure (Yaish, 2000),
- Attitudes as *motivational access*
- Age, Gender
- No so much narrowing from 2008-2012

H1: A positive association between *human capital indicators* **such as income and education and physical access to computers at work and access to the Internet.**

H2: The higher the position in the *occupational structure*, the greater will be physical access to computers at work and access to the Internet.

H3: *Differential ethnic access* to ICTs will be a function of occupational position, controlling for income, education, age and gender.

H4: Motivational access will be a function of *occupational position*, net of income and education.

H5: Motivational access will be a function of *ethnic position*, over and above occupational position, income, and education.

Data:

Phone survey of a representative sample of the Israeli population, 68 items, conducted in July 2007 , (N=1410).

Data on 10 occupational classes (similar to Goldthrope and Erickson's class schema).

TABLE 4 Logistic regression predicting access to the Internet.

	Model 1			*Model 2*			*Model 3*		
	Parameter estimate	*Standard error*	*Odds*	*Parameter estimate*	*Standard error*	*Odds*	*Parameter estimate*	*Standard error*	*Odds*
Age	−0.04	0.01	0.95**	−0.04	0.01	0.96**	−0.03	0.01	0.96**
Gender (male = 1)	0.33	0.27	1.39	0.57	0.30	1.78	0.304	0.33	1.35
Marital status (married = 1)	0.20	0.39	1.22	0.02	0.40	1.02	−0.14	0.45	0.87
Education									
Elementary	–	–	–	–	–	–	–	–	–
High school	1.32	0.35	3.74**	1.09	0.36	2.9**	0.87	0.40	2.39*
College	1.55	0.35	4.75**	1.28	0.37	3.60**	1.01	0.41	2.74*
Graduate	2.90	0.42	18.18**	2.51	0.47	12.37**	2.18	0.49	8.90**
Monthly income	0.14	0.06	1.15*	0.11	0.06	1.12	0.07	0.07	1.08
No children	0.83	0.74	2.29	0.63	0.75	1.88	0.12	0.82	1.13
1–2 Children	−0.01	0.42	0.98	−0.04	0.45	0.95	−0.41	0.48	0.66
3–4 Children	0.50	0.42	1.65	0.37	0.44	1.45	0.28	0.46	1.33
5 children and more									
Secular									
Traditional	0.37	0.40	1.44	0.21	0.40	1.23	0.20	0.42	1.22
Religious	−0.46	0.28	0.62	−0.51	0.29	0.60	−0.22	0.32	0.80
Ethnicity (Jews = 1)	0.74	0.36	2.09*	0.62	0.37	1.87	0.17	0.40	1.19

Continued

	Model 1			Model 2			Model 3		
	Parameter estimate	*Standard error*	*Odds*	*Parameter estimate*	*Standard error*	*Odds*	*Parameter estimate*	*Standard error*	*Odds*
Occupation									
Academic				1.11	0.62	3.05	0.75	0.66	2.11
Technical				1.09	0.42	2.99*	0.86	0.45	2.37
Managers				1.03	0.41	2.80*	0.83	0.45	2.29
Clerical				1.64	0.54	5.16*	1.02	0.58	2.78
Sales and services				0.94	0.37	2.56*	1.01	0.40	2.74*
Agricultural and industrial skilled and unskilled	–	–	–	–	–	–	–	–	–
Internet attitudes							0.24	0.03	1.28**
Constant	0.55	0.88	1.73	0.12	0.93	1.13	−1.91	1.01	0.14
−2 log likelihood	429.86			415.85			363.52		
Naglerke R^2	0.29			0.32			0.43		

*$p < 0.05$.

**$p < 0.001$.

Results

Significant ethno-national gap in attitudes to the Internet, which remains even after controlling for education, income, occupation, and working with computers.

Israeli Arabs expressed more negative attitudes toward the Internet than the Jewish population, and this gap remains "unexplained" after controlling for human capital and occupation.

The net effect of occupation on attitudes to the Internet can be explained by exposure to computers at the workplace and occupational attributes in itself.

Israeli Arabs:

1. More negative outlook on ICT.

2. Net effects of income and education.

3. Lower rate of digital access is mainly due to their disadvantageous occupational status.

.

Occupations are vehicles of ‘soft skills’ in the form of Internet literacy and technological orientation => structurally associated with material wealth, income disparity, and the cultural capital.

A lack of Internet access and variations in its use might reflect and even exacerbate existing social inequalities

Information and online literacy skills will continue to *differentially* accumulate for those who have skills and those who do not (van Dijk 2005; van Duersen & van Djik 2009a, 2009b)

➔ Amelioration of ethnic economic inequality is deemed likely to bring about the minimization of the digital gap between Israeli Jews and Israeli Arabs

Cultural Differences

In Depth Interviews
(20 Arab and 20 Jewish Israeli Adolescents)

Privacy.

Nuhas(14, C,B) *I met one of my friends through the net. She is a girl and lives in my village and she is also Christian. She studies at my school and I see her every day, but I don't speak with her there…it's embarrassing…it's not acceptable…but chatting is different because only she and I know we chat…"*

Maha, (13, Muslim,G):

"I met a boy through the net. A friend of my friend gave to him my email address and he added me to the list. We chat … Instant messenger is cheaper and my parents allow me to use the computer as much as I want. With the messenger I have privacy; nobody knows who I'm chatting with. With the cell phone I don't have privacy, my sisters and my parents ask me all the time who's on the phone."

Virtuality and Reality

Liron,(16, J, B)

"I like to play a game through the internet. There is an entire group that plays…we start knowing each other by placing messages in the game bulletin board. … We arrange meetings during the holidays because there is no school and it is easy to travel to another city. At the last meeting I met eight members. We became like friends.

What does it mean to be like friends?

"Is like schoolmates. We meet and do the same things that I do with my friends at school…"

Faisal (16, A, B):

I started talking with a girl from another city. She is a Muslim like me. I got the email from a friend; they are family and chat from time to time. We chat by computer and once or twice we talk over the phone. She is a year younger than me. We never met face to face.

Rushdi (17,M,G):

I met new people on the Internet from other schools and towns….You know – a friend brings a friend, so friends started adding me to the buddy list…. (Interviewer's probe: Did you ever go out with one of them?) No, never. We chat about school, about fights with siblings, problems with friends….but we did not met.

Culture is still relevant. More western groups online ties become integrated in their offline ties. Less western groups search for ways of integrating culture and social ties.

Culture matters, and communication technologies can not overcome certain social divisions. In the case of Israel national divisions.

Explaining Digital Inequalities in Israel: Juxtaposing the Class and Status Perspectives

Conceptual frameworks for understanding variations in access and types of use based on class and social status.

Data from a national representative sample of the Israeli population (n=1,792)

Weber (1920) Class position vs. Status Group

Class	Status Group
Category	Group
Market position	Life style
A possible base of association	Inter-subjective Boundaries Internal codes and legacy
Objective	Inclusion and exclusion

Occupations differ from one another not just in terms of their salaries, but also in terms of the lifestyles and mental models they bring in their work (Bourdieu, 1984; Calhoun, 1992)

Independent Var	Dependent Var
Occupational prestige Income Ethnicity Gender	Computer Use Internet Use Attitudes

Descriptive Statistics : Computer Use and Internet Use by Social Group

Variables	Population Group			*F*	Total
	Jews--Non-immigrants	Jews--Immigrants from the FSU	Arabs		
Computer use at home	80.3%	74.9%	70.0%	8.6**[a]	77.8%
Computer use at work	57.7%	41.0%	32.3%	39.7**[b]	51.3%
Computer use anywhere	84.3%	76.4%	72.2%	14.51**[c]	81.3%
Internet use	73.9%	71.3%	63.6%	6.9**[d]	71.8%
N	1270	195	327		

* $p < 0.05$, ** $p < 0.01$

[a] Difference between: Jews--Non-immigrants and Arabs

[b] Difference between: Jews--Non-immigrants and Jews--Immigrants from the FSU, Jews--Non-immigrants and Arabs

[c] Difference between: Jews--Non-immigrants and Jews--Immigrants from the FSU, Jews--Non-immigrants and Arabs

Descriptive Results

Significant differences in computer use at home, at work and Internet use:

Israeli Jews report the greatest use, followed by immigrants from the FSU.

Israeli Arabs are the least frequent users in every category. Such findings confirm the existence of digital

Logistic Regression *Internet Use at Home* by Class Variables (Education, Income) and Status Variables (Occupational Prestige, Attitudes towards Technology)

	Model 1			Model 2		
	B	SE	Odds	B	SE	Odds
Age	-.02	.007	.97**	-.02	.008	.97**
Marital Status (1=married)	-.45	.22	.63*	-.24	.23	.78
Gender (1=male)	.37	.21	1.45	.03	.22	1.03
Education	.19	.04	1.21**	.14	.04	1.15**
Income (log)	.68	.35	1.97	.76	.39	2.15
High grade professionals[3]						
Low grade professionals[3]	.42	.33	1.51	.52	.35	1.69
Routine non-manual laborers[3]	1.077	.42	2.93*	.97	.45	2.64*
Small employers and self employed[3]	.50	.46	1.65	.43	.49	1.54
Technicians and workers[3]	.73	.47	2.08	.73	.51	2.08
Occupational prestige				.02	.008	1.02**
Immigrants from the FSU	.64	.36	1.89	.60	.39	1.82
Israeli Arabs	-.60	.25	.54**	-.43	.26	.64
Attitudes				.08	.10	.97**

In MVA, the net effects of income and virtually all of the occupational categories are statistically non-significant.

Positive effect of education.

Even after controlling occupation, income, and education (as well as other variables) the effect of ethnicity still persists.

=> Ethnicity has a direct net effect on Internet use, over and above other indicators of social hierarchy.

=> Social class alone does not explain why Israeli Palestinians are less likely to use the Internet.

OLS Regression, ***Negative Attitudes toward the Internet***

	B	SE	β
Age	.004	.002	.055
Marital Status (1=married)	.24	.06	.11**
Gender (1=male)	-.32	.06	-.17**
Education	-.05	.01	-.16**
Income (log)	-.13	.11	-.03
High grade professionals[3]			
Low grade professionals[3]	.03	.09	.01
Routine non-manual laborers[3]	-.28	.12	-.12*
Small employers and self employed[3]	-.16	.14	-.05
Technicians and workers[3]	-.13	.13	-.05
Occupational prestige	-.008	.002	-.17**
Immigrants from the FSU	-.20	.09	-.06*
Israeli Arabs	-.20	.09	-.06*

Education and income have an independent (net) negative effect on attitudes toward the Internet.

The higher the level of education and the higher the amount of reported income, the less negative the attitudes toward the Internet are.

Occupation is not associated with attitudes toward the Internet.

However, as expected by the cultural approach, occupational prestige and ethnicity are significantly associated (in the expected direction) with attitudes toward the Internet.

In other words, the higher the occupational standing, the lower the level of negative attitudes toward the Internet.
Finally, Israeli Arabs and immigrants from the Former Soviet Union express more negative attitudes toward the Internet than Israeli Jews.

Predicting Five Types of Usage

	Create a home page		
	B	SE	β
Age	-.01	.005	-.12**
Marital Status (1=married)	-.02	.13	-.005
Gender (1=male)	.24	.12	.07*
Education	.03	.02	.06
Income (log)	.08	.23	.01
High grade professionals[3]			
Low grade professionals[3]	.22	.19	.05
Routine non-manual laborers[3]	.39	.25	.10
Small employers and self employed[3]	.30	.28	.04
Technicians and workers[3]	.44	.27	.09
Occupational prestige	.01	.005	.12*
Immigrants from the FSU	.47	.19	.08**
Israeli Arabs	.11	.18	.02
Constant	1.46	.71*	
Adj. Rsquare	.02		

	Create a SNS site		
	B	SE	β
Age	-.04	.006	-29**
Marital Status (1=married)	-.47	.15	-.10**
Gender (1=male)	.46	.14	.11**
Education	.06	.02	.08**
Income (log)	.70	.27	.08**
High grade professionals[3]			
Low grade professionals[3]	-.05	.22	-.01
Routine non-manual laborers[3]	.38	.29	.07
Small employers and self employed[3]	.19	.33	.02
Technicians and workers[3]	.42	.31	.07
Occupational prestige	.003	.006	.03
Immigrants from the FSU	-.25	.22	-.03**
Israeli Arabs	-.88	.21	-.13**
Constant	.476	.82**	

	Check Bank Account		
	B	SE	β
Age	-.01	.004	-.13**
Marital Status (1=married)	.02	.11	.007
Gender (1=male)	.28	.10	.09**
Education	.05	.01	.10**
Income (log)	.23	.19	.04
High grade professionals[3]			
Low grade professionals[3]	.29	.16	.07
Routine non-manual laborers[3]	.67	.21	.19**
Small employers and self employed[3]	.42	.24	.07
Technicians and workers[3]	.26	.23	.06
Occupational prestige	.01	.004	.15**
Immigrants from the FSU	-.01	.16	-.003
Israeli Arabs	-1.01	.15	-.22**
Constant	2.74	.60**	
Adj. Rsquare	.08		

	Search for information			E-mail		
	B	SE	β	B	SE	β
Age	-.008	.003	-.09**	-.009	.004	-.07*
Marital Status (1=married)	-.18	.08	-.07*	-.03	.10	-.01
Gender (1=male)	-.08	.08	-.03	-.02	.10	-.008
Education	.04	.01	.11**	.07	.01	.15**
Income (log)	-.09	.15	-.02	.35	.19	.06*
High grade professionals[3]						
Low grade professionals[3]	.07	.12	.02	.13	.15	.03
Routine non-manual laborers[3]	.07	.16	.03	.74	.20	.21**
Small employers and self employed[3]	.16	.18	.04	.60	.23	.10**
Technicians and workers[3]	.13	.17	.04	.47	.22	.12*
Occupational prestige	.008	.003	.14**	.02	.004	.33**
Immigrants from the FSU	.33	.12	.08**	-.11	.15	-.02

Education and Occupational Prestige are positively associated with most of the examined activities

Education is positively associated with user-generated activities (using a social networking site, etc.), with financial activities (checking and conducting banking activities online), and with searching for information and communicating using e-mail.

Occupational prestige is positively associated with four out of the five activities (including creating a homepage, banking online, and online information searching and communication).

Immigrants from the FSU are more likely to be involved in Internet activities that deal with production (creating a web site) and information searching than native-born Israeli Jews.

Similarly, Israeli Arabs are more likely to be involved in information searching only. Israeli Jews are more likely to be involved in the construction of user-generated content such as social networking, online banking and communication, and less likely to be involved in information search.

The Impact of Internet on Social Capital: A Panel Study

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Theory

- Importance of Internet for resource acquisition,

(i. e. Katz &Rice, 2002;; Van Dijk; 2005; Boyd, 2006; Walther et al, 2008; Tong et al, 2008; Wang, & Wellman, 2009; Mesch and Talmud, 2010; Chen, 2011).

Online Social Resources are linked to Internet Activity (Van Dijk, 2005).

Digital Divide: Amplification vs. normalization Approaches (Katz and Rice, 2002; Mesch and Talmud, 2010; 2011).

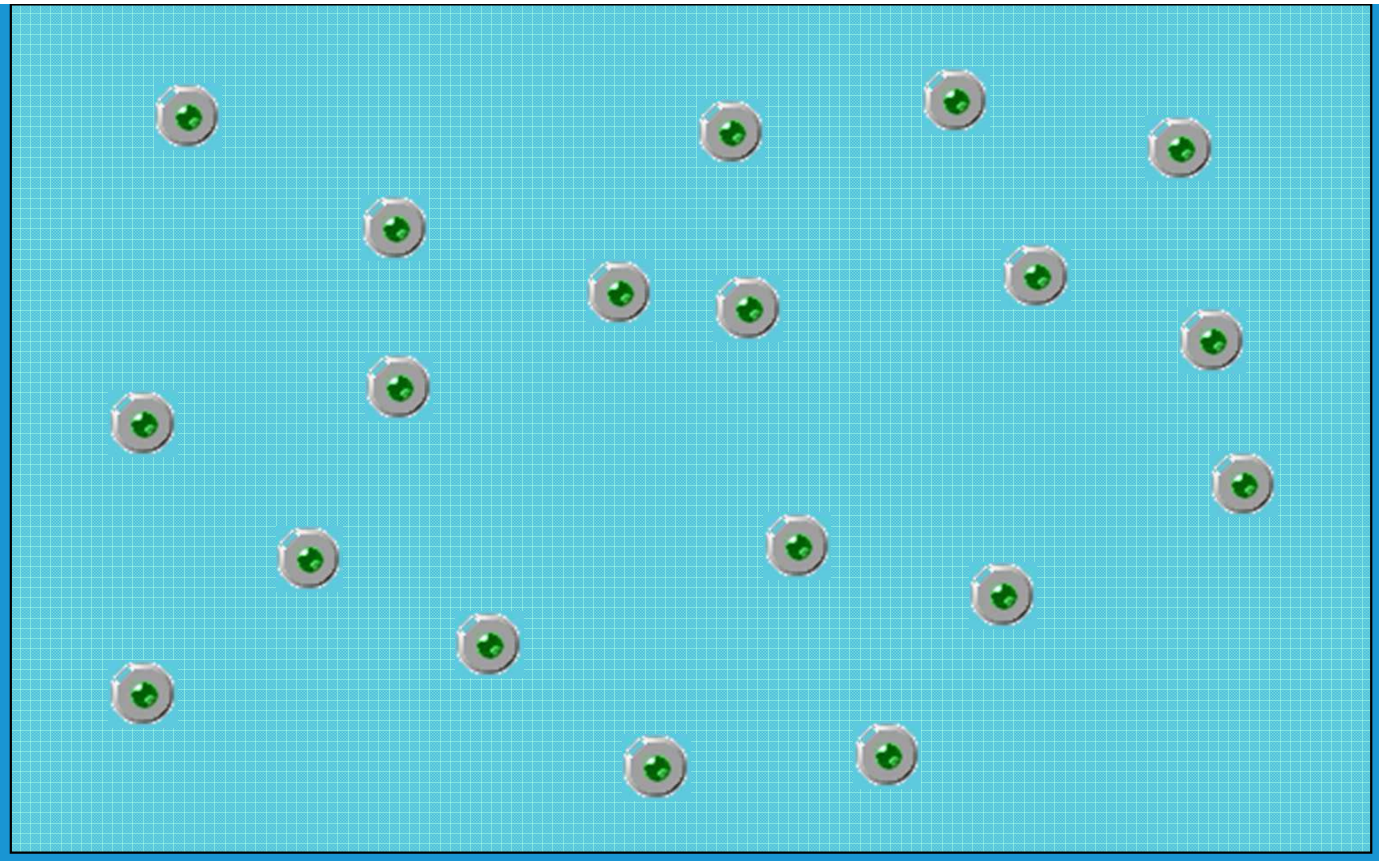
Social Capital and Network Structure: (Burt, 1992; Lin, 2000; Coleman 1998; Nahapiet and Ghoshal, 1998).

The Generics Of Social Capital

Baseline:

The Imaginary World of Random Networks

- Perfect Competition Paradigm of Neo-Classic Economics

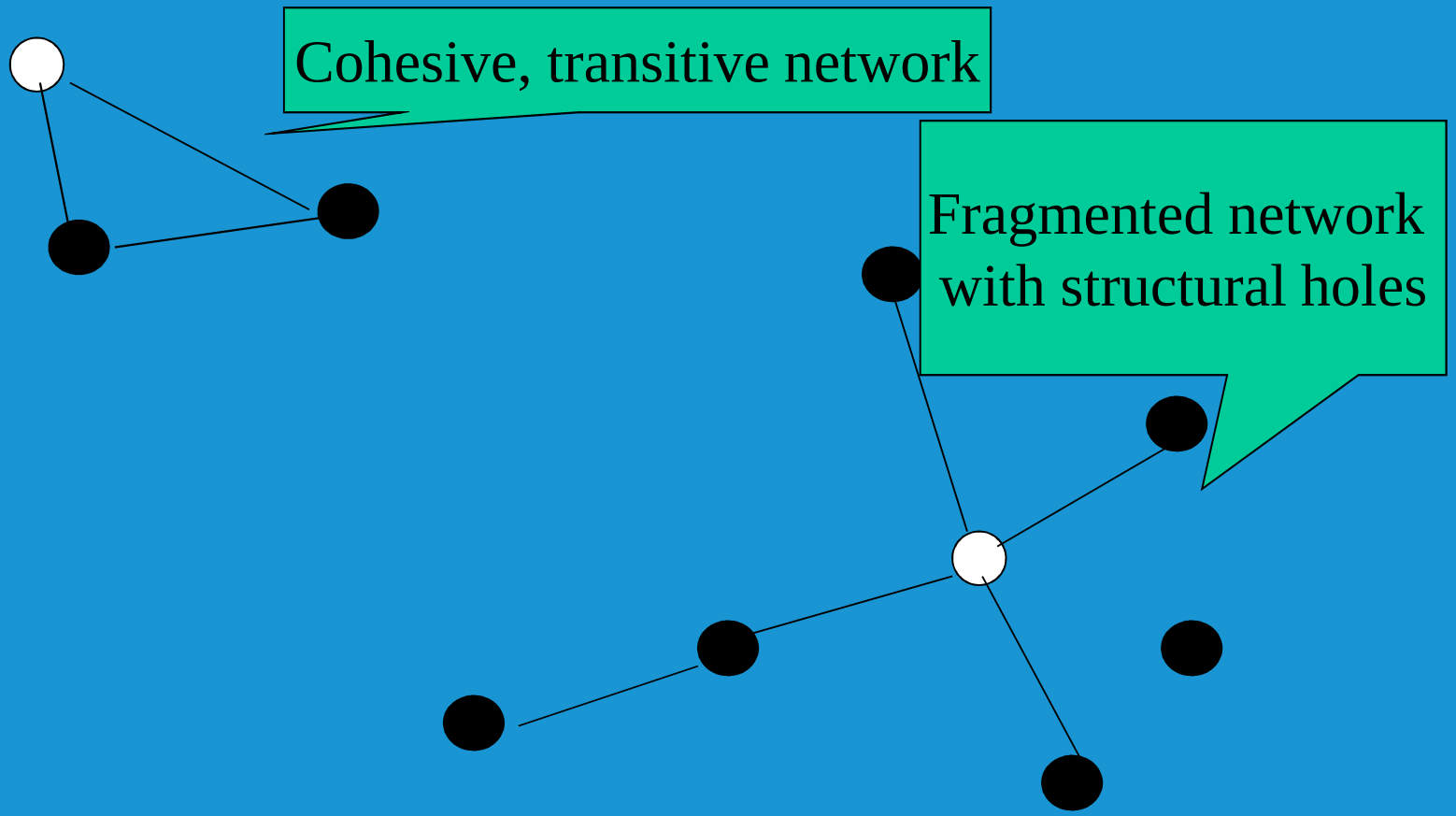


Assumptions of Perfect Competition Paradigm:

- Numerous, anonymous, small players
- Perfect and complete information
- Perfect Access (Brownian motion; identical odds).

But in the Real World:

Stylized Networks



Assumption: embedded and rational actor (“contextual rationality”)

Exchange and Power (Blau, Adams)

Base line

$$\text{Equity}: \quad \frac{\text{Reward 1}}{\text{Investment 1}} = \frac{\text{Reward 2}}{\text{Investment 2}}$$

"Real Life"

$$\text{Asymmetric Transaction}: \quad \frac{\text{Reward 1}}{\text{Investment 1}} < \frac{\text{Reward 2}}{\text{Investment 2}}$$

Rent is a *bridging concept* between structural approaches to social stratification, and network models of social capital

Rent
(Sorensen, 2000)

- R = r* - r

Rent = the portion of the reward which stems from the social structure

Rent = actual reward (imperfect competition) – “fair reward” (perfect competition).

Rent =(reward | real network) – (reward | random network)

Theoretical Context of Rent

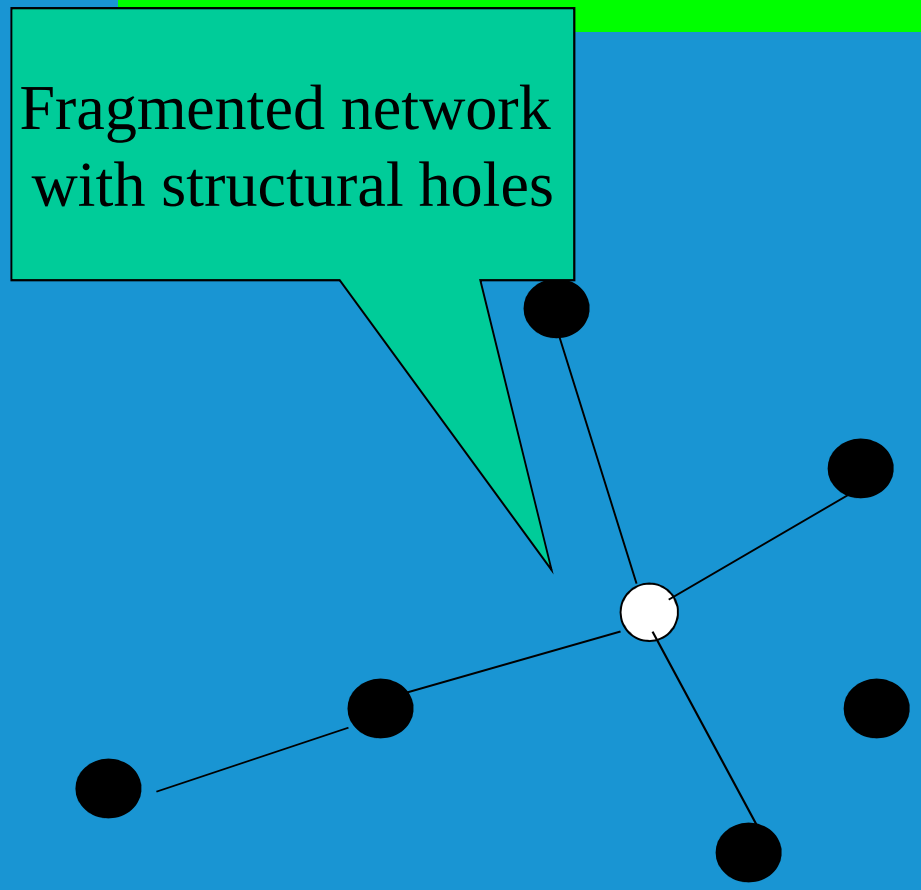
General:
PE: Stigler's Profit Squeezing (1977); Bhagwatti's Directly Unproductive Profit Seeking Activity (1982) Sociology: Sorenson (2000)

Bridging: Value appropriation
Granovetter's weak ties (1974).
Burt' Structural Holes (1992; 2005).

Bindings: Value creation
PS: Putnam's (2000) participatory network
OT:Ghoshal's (1998) corporate social capital
SOC: Wellman's (1999) network capital

Conditional:
Hansen (1999), Uzzi (1996, 1997), Burt (1994; 2000), Talmud, (2000) Talmud and Mesch (1997) ; Darr and Talmud (2000)

Two Kinds of Social Capital



1. Bridging

(Structural Holes)

- Exploitative Rent
- Rent is a function of disconnection between alters
- Individual level only
- Value appropriation
- Asymmetric dependency
- Non-redundant information
- Non-redundant opportunities
- Less constraints
- Distrust
- Selective discrimination
- Theories:

Burt's structural holes

Granovetter's "Weak Ties"

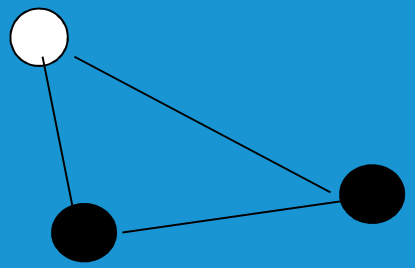
Two Kinds of Social Capital

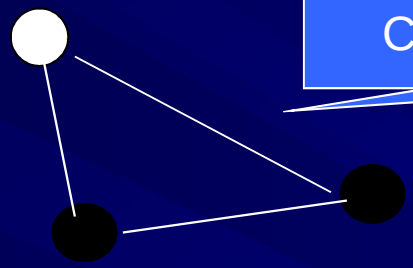
2. Binding

Cohesive Network

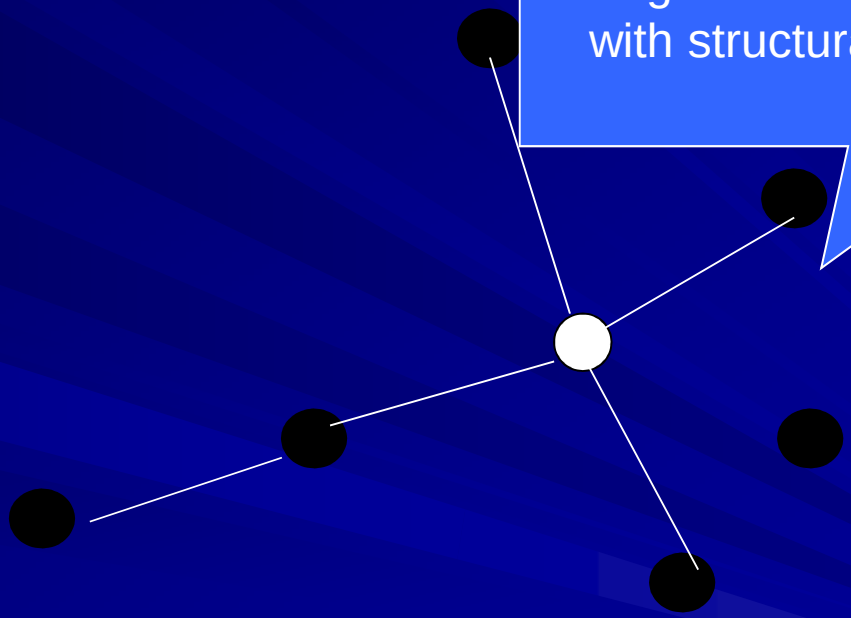
- Composite Rent
- Individual and group levels
- Value creation
- Symbiotic inter-dependence
- Contextual and tacit knowledge
- Non-standard technological transfer
- Trust
- Reduction of transaction cost
- Overcoming risk and uncertainty
- Rent is a function of connection and synergetic combination with alters
- Theories:

PS: Putnam's participatory network
OT:Ghoshal's corporate social capital
SOC: Coleman's closure
Wellman's network capital





Cohesive, transitive network



Fragmented network with structural holes

Rent is a function of Social Capital

Assumption: embedded and rational actor (“contextual rationality”)

Two Kinds of Social Capital

Binding

Cohesive Network

- Composite Rent
- Rent stems from combinations
- Symbiotic inter-dependence

Bridging

Structural Holes

- Exploitative Rent
- Rent is a function of power asymmetry.
- Disconnection between alters

Configuration of Social Capital

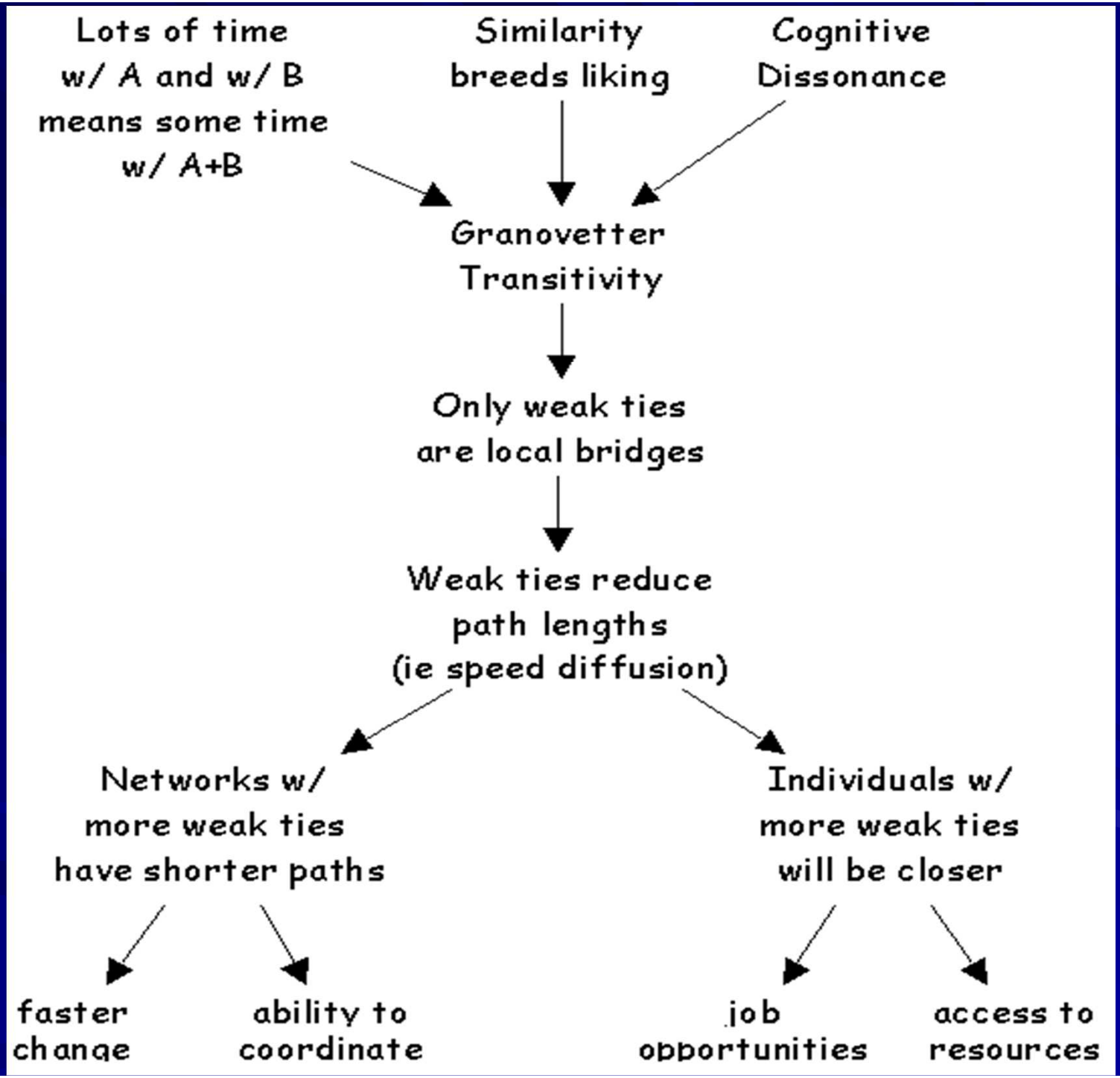
- Structural Holes Theory (Burt, 1983).
- Social Closure Theory (Coleman, 1988).

1. Binding Social Capital

- Putnam’s network connection
- Nahapiet and Ghoshal’s corporate social capital
- Wellman’s network social capital

2. Bridging Social Capital

- Granovetter’s Weak Ties
- Burt’s Structural Holes


Lots of time w/ A and w/ B means some time w/ A+B
Similarity breeds liking
Cognitive Dissonance
Granovetter Transitivity
Only weak ties are local bridges
Weak ties reduce path lengths (ie speed diffusion)
Networks w/ more weak ties have shorter paths
Individuals w/ more weak ties will be closer
faster
ability to coordinate
job opportunities
access to resources

Asymmetric association between relations strength and redundancy

Ties Strength	Bridge	No Bridge
Strong	Rare, but most valuable under uncertainty	Common
Weak	Most bridges are weak ties Most weak ties are redundant	A lot

Integration: Linking Social Capital

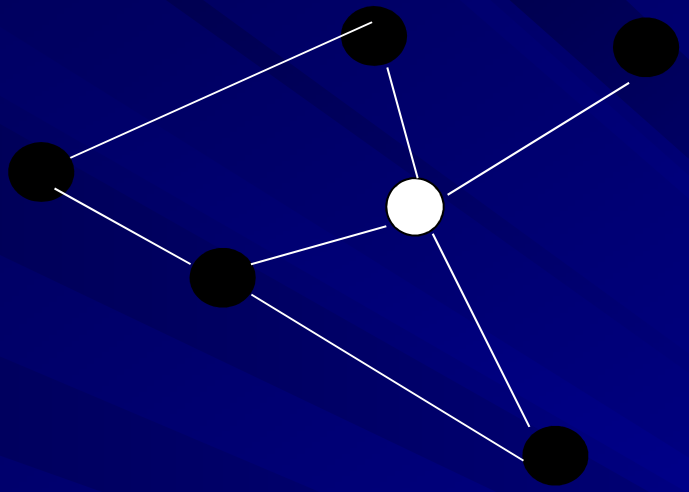
- The Emergence of Network Society (Castells, 1998; Wellman et all, 2000)
- Multi-cultural and multi-ethnic societies (Uslaner, 1999; Putnam, 2000)

•Two contradictory types of social capital may co-exist with two kinds of rent (couple; supplier-customer)

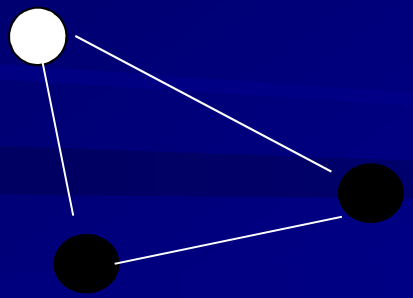
3 Styles of Structural Embeddedness

(Uzzi, 1997; 2000)

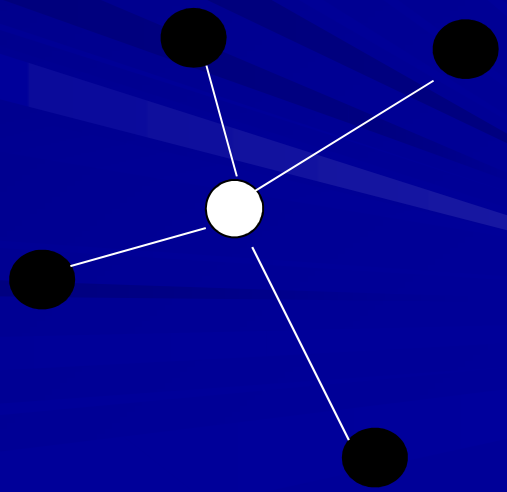
Embedded Ties



Over-embeddedness
Dense Ties: Transitive Relations



Under-embeddedness:
Arm's length ties



Community Social Capital

Collective level

Normative: civic virtue, trust, identity,

Structural: relations, cohesion, homophily, incentives forced by structural arrangements

Not mutually exclusive, but rather complementarities

Theories of Social Capital

Theory	Bridging Social Capital	Binding Social Capital
Social morphology	Broad range, a variety of kinds of friends, many weak ties, connecting network clusters	Homogeneous networks, closely knit, dense social ties; stable, durable, transitive social ties
Presumed benefits	brokerage, non-redundant information, control, timing. entrepreneurial opportunity. Cognitive flexibility, broad reach of tastes, fashion, and innovation, weak ties, individual autonomy;, tolerance, multi-cultural awareness	Trustful strong relations, mutually commitment, social and emotional support, Intimacy Reciprocity Shared identity Tacit and contextual knowledge
Presumed costs	Shallow relations, lack of	Social control, peer

Accumulation of Social Capital

- The influence of Internet use on social capital, by analysing ***four-waves panel data*** **of representative sample of Israeli total population**, conducted over a period of two and half years

N wave 1= 1792
N wave 2= 920
N wave 3= 646
N wave 4 = 420 .

Variables

- **DP: *Online social capital*; a scale adding up positive responses on 9 items of "resource generator" that were met online.**

- **Position or resource generator** is conceived to be is more effective than the "Name Generator" in capturing weak ties (Erickson 2004; Chen and Wellman 2009), measuring the quantity and quality of embedded actual resources in the respondents' online social networks (Van der Gaag et al, 2005).

- **Independent VARS:**
- ***Face to Face Social Capital* : A scale adding up positive responses on 9 items of "resource generator" (covering "general" social capital (Van der Gaag, Martin and Snijders, 2005).**
- ***Face to face social support,* 4-items scale**
- **IV *Expansive use of SN* – adding up three, 5 points items (dichotomized due to skewness).**
- **IV *Maintenance use of SN* – same as above**

Hypotheses

- H_1: *Online Social Capital* increases with use frequency (*Intensity hypothesis*).
- *H2*: Over time, change with Online SC is associated with offline social resources (*amplification / Mathew effect hypothesis*).
- H_3: As motivation to use for either expand or maintained social ties has structural consequences, we postulate that online SC is linked with Internet specified use:

H3a Over time, internet use for intention of expansion of social ties increases online SC (Granovetter, 1974; Burt, 1992).

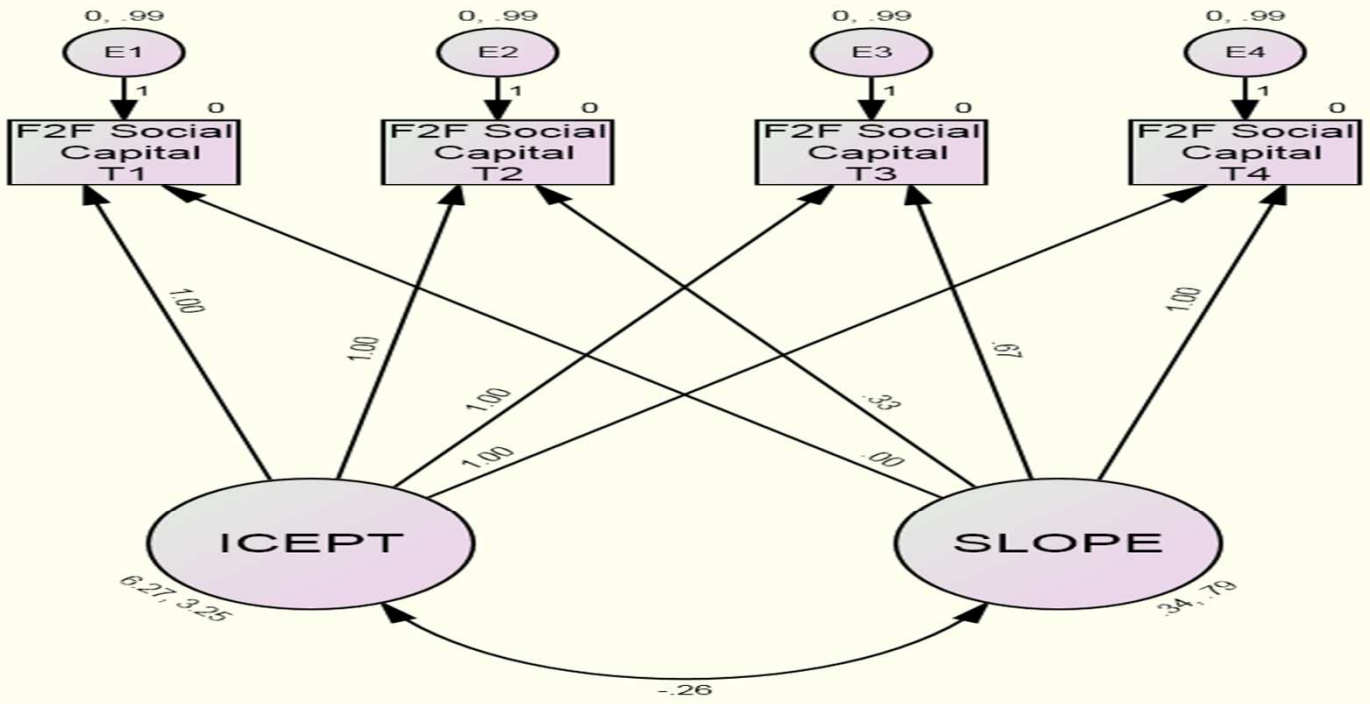
H3b By contrast, purposive maintenance of SN does not affect change in the stock of social capital (*Network Structure hypothesis).*

General Findings

Model 1: Basic Model, Change over time in Social Capital

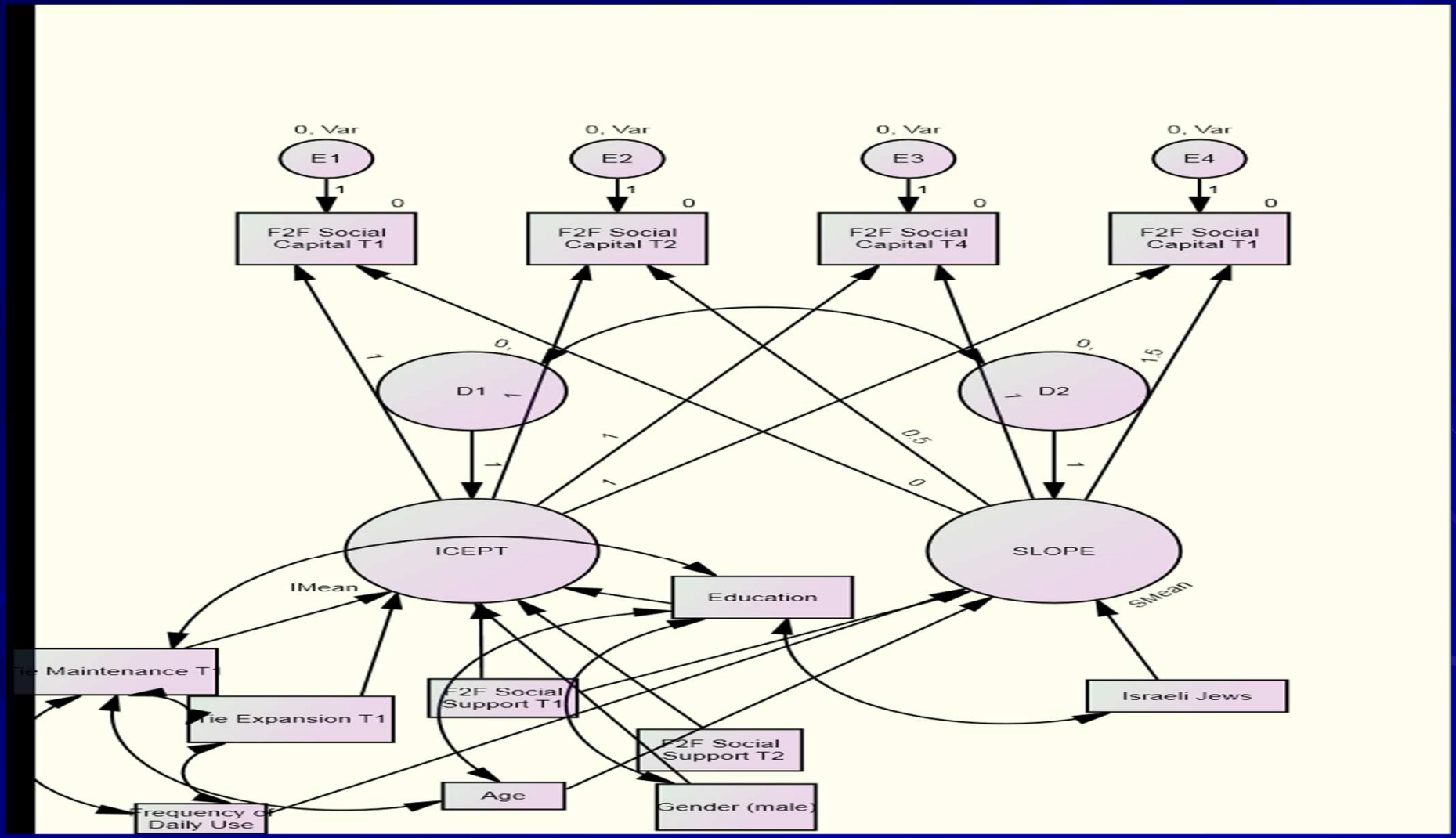
The model fits very well the data (CFI=.97; NFI=.96; RMSEA=.05; Chi Square=51.86, p<.01).

The model indicates that there is change over time.

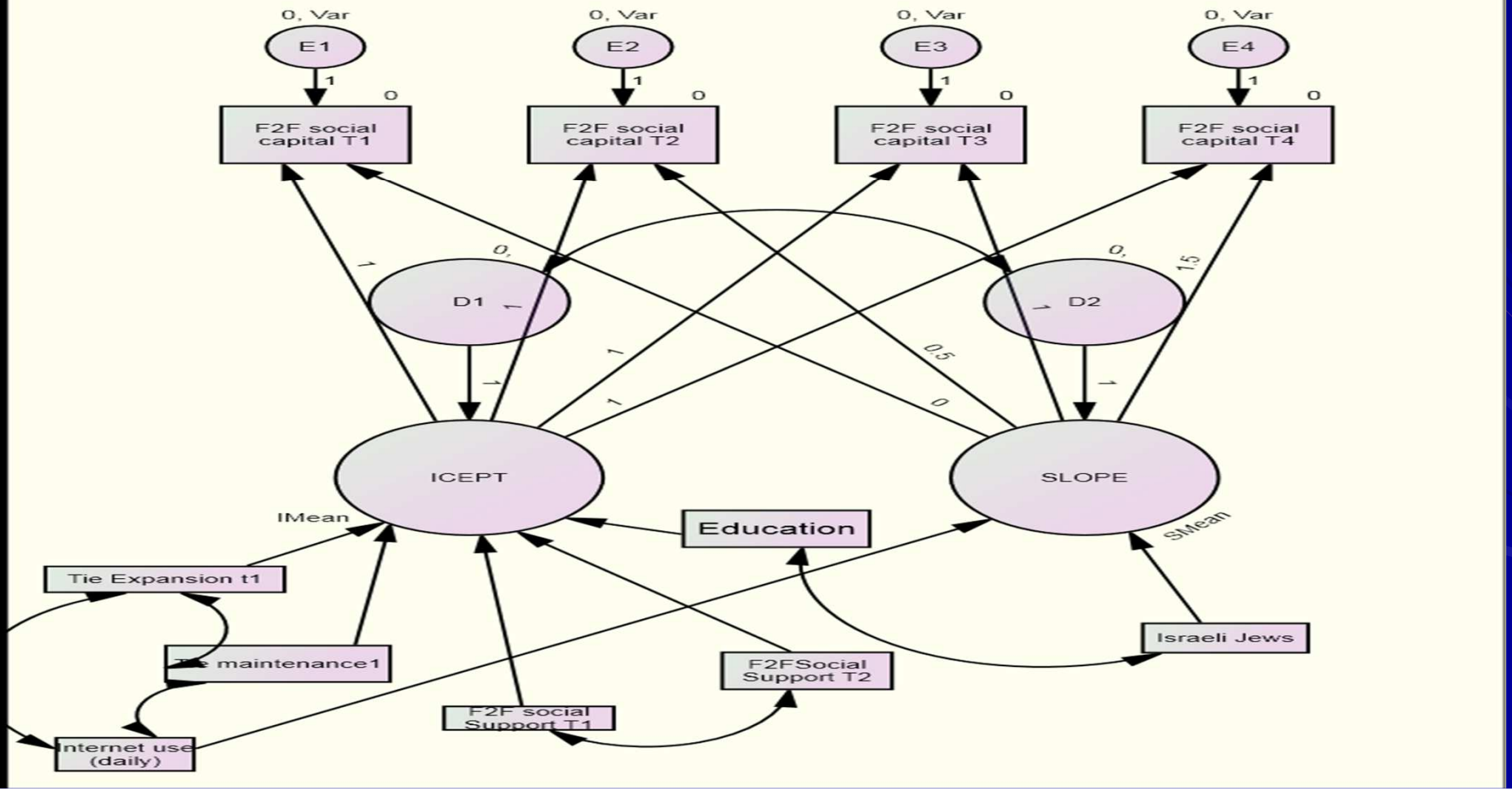


Model 2, includes Age, education, Social support, nationality, type of Internet use and frequency of use.

The model explains change moderately. (CFI=.92; IFI=.92; RMSEA=.06)



Model 3, same as previous model but does not include demographics, has a better fit.
(NCFI=.93, CFI=.93; RMSEA = .05



Model 3 Parameter Estimates

	Estimate	S.E.		
ICEPT← Education	.09	.01**		
ICEPT← Expanding ties	.13	.01**		
ICEPT← Maintaining ties	-.06	.01**		
ICEPT← Social Support	.09	.01**		
ICEPT← Gender (Male)	-.29	.08**		
SLOPE← Israeli Jews	-.31	.11*		
SLOPE← Age	-.01	.003**		
SLOPE← Frequency of Internet use	.-06	.02		
**p<.01, *p<.05				

Summary of Results

Findings show that online social capital changes over time both at the group level and at the individual level.

Group level change in social capital is positively affected by education, gender (women more), type of internet use (for expanding social ties) and social support.

Increade in the stock of social capital is negatively related to the use of the Net for maintaining social ties.

Individual level: individual positive change in the stock of social capital for some Arabs, but negative change for frequent internet users and for the older population.

Discussion

In this panel study, we could show in a causal sequence that the both group and individual capacity for increase in online social capital is connected with her /his social position, and is a function of general embedded resources in offline network as well as with user’s network strategy.

Network resources and use strategy:

Online social capital increases with with the extent of perceived general, face to face, social support, and with the use of the Internet for maintaining and expanding social ties

Social Position: While groups' changes in social capital are associated with education, Intra-individual change is associated with nationality.

The increase in social capital over time is more likely to occur among Arabs than among Jews. This could be due to a "floor effect", where the Internet has a more "normalizing" effect on national differences. ***

Further, neither group-levels change nor intra-individual changes were associated with online social support, online friends, online skills, and virtual literacy.

Future Research

Future research should examine concrete online effects on social resources using other kinds of analysis. In particular, more studies should be made for:

- International comparison
- Quality of social resources, especially in local ties.

A Cautionary Note: as computer mediated communication networks are embedded in offline social structure and individual resources, using them by social actors bring about only moderate effects on social life.

Shift

- Digital Divide (access, Use, Literacy, Social Capital)
- Implication on Civic Engagement and Community Involvement

Community Networks Membership and Community Involvement: The Case of Local Community Mailing Lists

Ilan Talmud, Gustavo S. Mesch,
Department of Sociology and Anthropology
University of Haifa, Israel

Online and Offline Networks are Key to Community Life

- Democratic Theory (de-Tocqueville ;Putnam; Habermas, Bimber)
- Art of Association
- Membership in secondary groups
- “From art of association to the science of organization” (Schmitter, 1983).
- Community Studies (vitality and status)
- Social Empowerment
- Civic Engagement: The difference between North and South Italy (Putnam)
- The Declining Social Capital in America (Putnam, 2000)

- Social Capital as a Carrier of Civic Liberties and Quality of Life
- Social Constructivism vs. Technological Determinism
- Ideological Biases: Utopian and Dystopian Perspectives on Technology and Internet (Radical and Conservative, Deliberative Democracy

“The Democratic Hype”

- Digital Technologies, Information and Political Transitions
- Mobs, Movements and Organizations

“The Internet and digital tools notwithstanding, hierarchical organizations with strong networks—the mainstay of civil society in consolidated democracies—are not a viable option in authoritarian regimes.

“

"Civil Society Organizations, whose **offline activities are already highly regimented** and watched by the state, are not exempt from the same scrutiny and restrictions in their use of digital tools.

CSOs are easy targets; their staff can be harassed or arrested and registration permits can be revoked if they stray outside the lines of accepted political organization".

Bruce Etling, Robert Faris and John Palfrey, Political Change in the Digital Age: The Fragility and Promise of Online Organizing , SAIS Review, Summer-Fall 2010, at 37

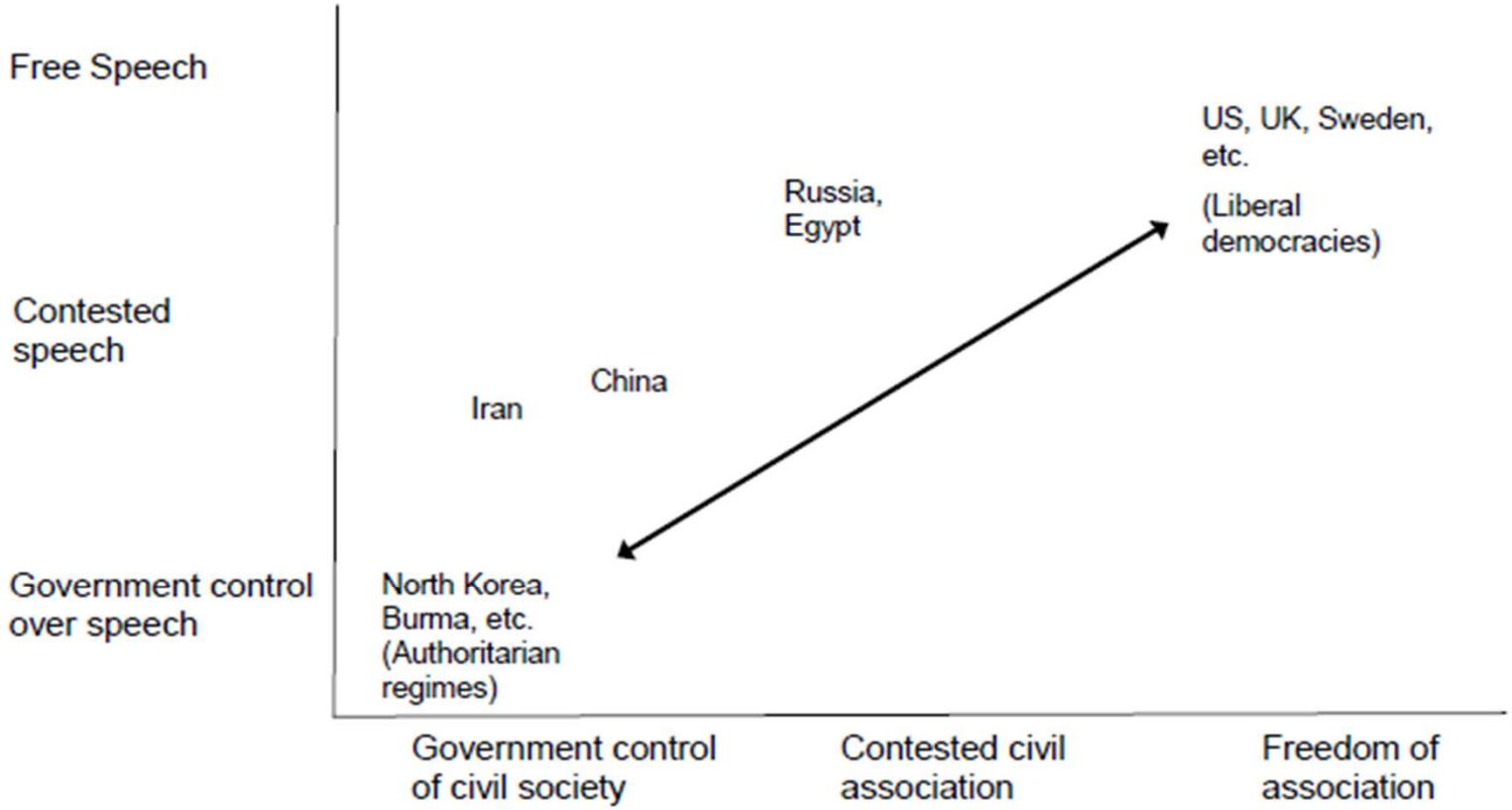


Figure 1: Freedom of Speech and Association in Different Political Regimes

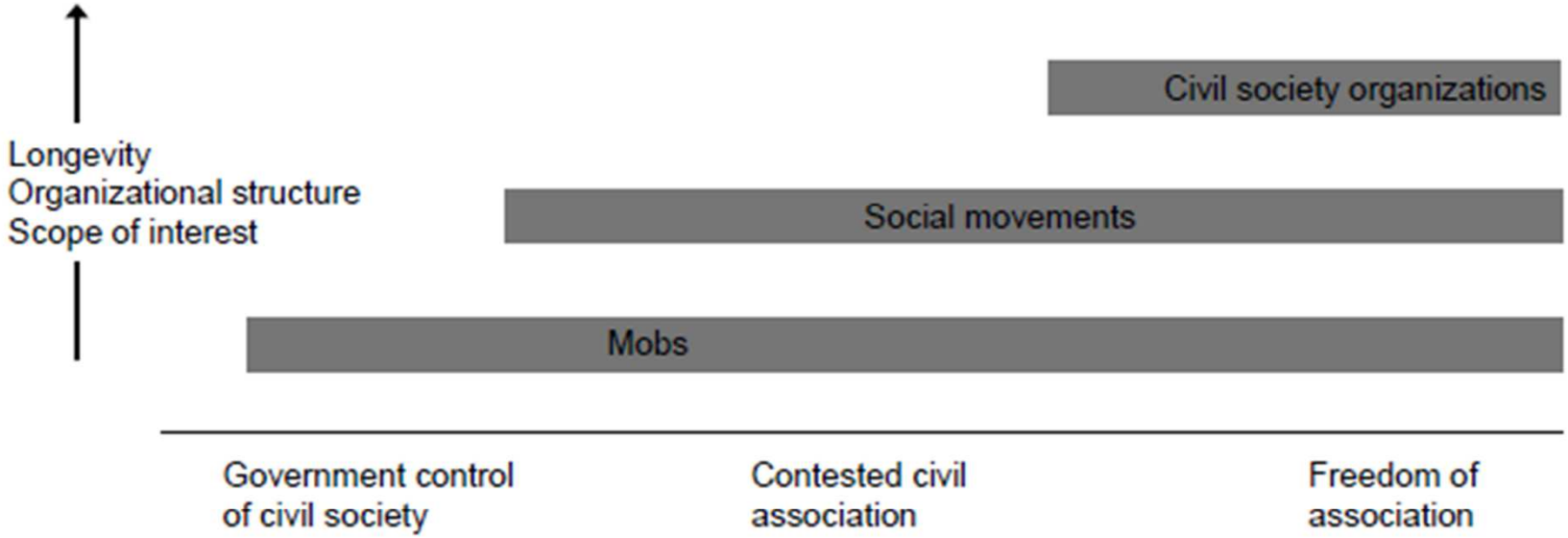


Figure 2: Three Models of Social Organizing - Mobs, Movements and CSOs

Top Down

- Hacking
- Filtering
- Publishing constraints
- Legal constraints
- Propaganda
- Harassment

“Uncertain Future of Digital Organizing”

“Smart mobs, however, particularly where they emerge organically and take governments by surprise, may be possible in all but perhaps the most restrictive authoritarian regimes.”

See also on Russia:

Bruce Etling, Karina Alexanyan, John Kelly, Rob Faris, John Palfrey, Urs Gasser (2010).

Public Discourse in the Russian Blogosphere: Mapping RuNet Politics and Mobilization

Social Capital and Civic Engagement

“Personal Community” (Wellman, 1979)

“The notion of “community” has often been caught between concrete social relationships and imagined sets of people perceived to be similar;

The rise of the Internet has refocused our attention on this ongoing tension” (Grudz, Wellman, and Takhtehev, 2011).

“Community Network” (Hampton)

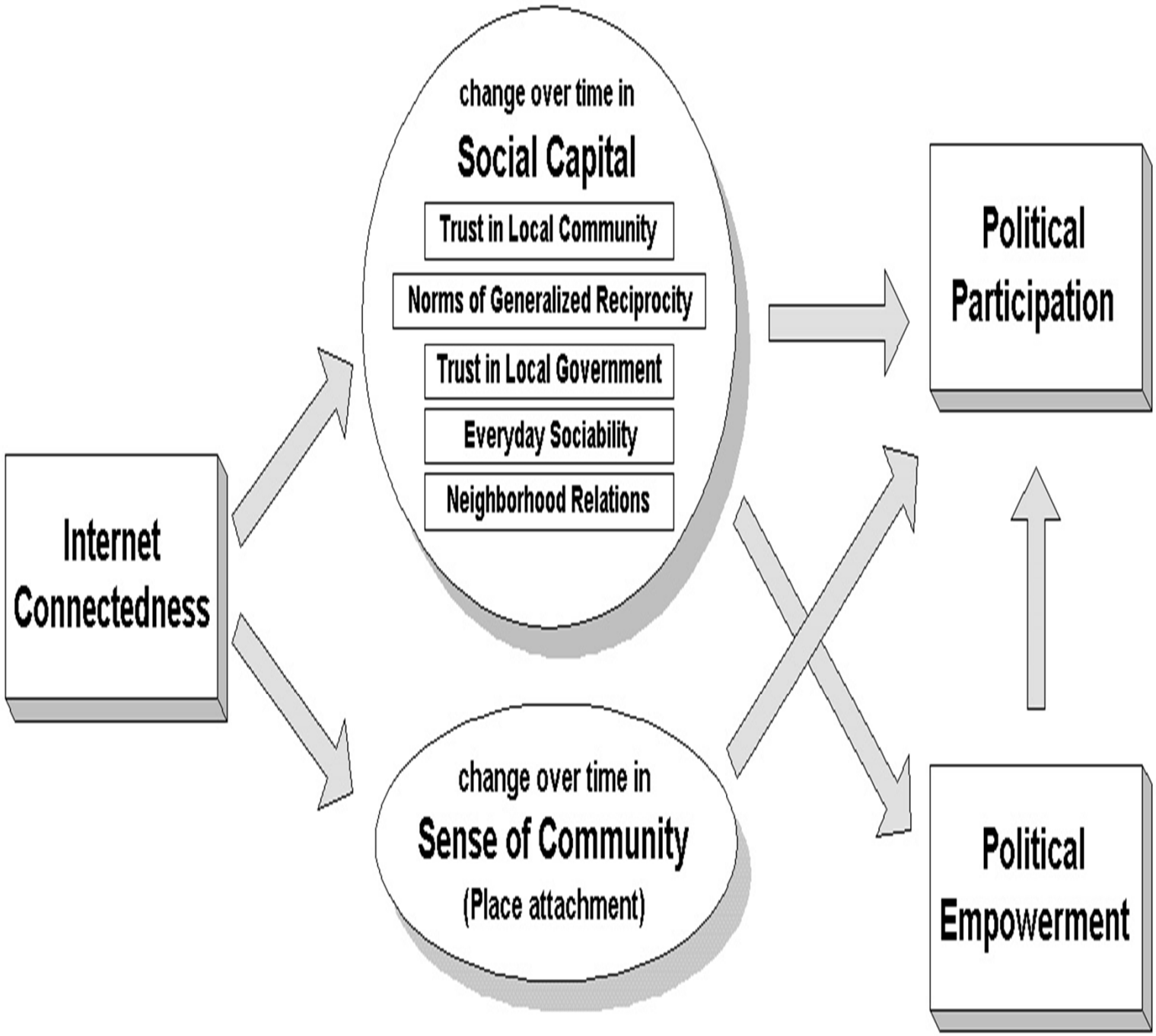
“Community Network” is a digital tool, serving as a local media for a “proximate” or geographical community, responding to the needs of the community and its residents.

This concept emphasizes the geographic aspect of a shared place of residence, and refers to computer mediated communication (CMC) system operating within a “Proximate Community” (Wellman et al, 2001; Shah et al, 2004; Kavanaugh et al, 2005

Participatory social capital = nominal and active participation in locally based organizations, conserving and promoting the quality of life.

- Community social capital enhances civic engagement and community participation, thus facilitating political agency in contemporary democracies.

Theoretical Approach	Deterministic Approach	Social Structural
Hypothesis	Connectivity	Participation
Prediction	Internet Connectivity produces social capital (organizational membership; community attachment)	Internet Connectivity facilitates the amplification of social capital (organizational membership; community attachment)


change over time in
Social Capital
Trust in Local Community
Norms of Generalized Reciprocity
Trust in Local Government
Everyday Sociability
Neighborhood Relations
Internet Connectedness
change over time in
Sense of Community
(Place attachment)
Political Participation
Political Empowerment

Hypotheses

- *Civic engagement hypothesis: civic activities* is associated with individual's social capital (operationalized as civic organizations memberships and leaderships)

Internet and Community Networks

Network Effect Hypothesis: List members will be more active in civic activities then non-members.

Social Capital facilitates Publicity and Community Involvement

- *To the extent people are experiencing a variety of online and offline community communication, they are more willing and capable of being involved in the civic life of their community*
- *Civic activity hypothesis*: Local political self efficacy mediates the influence of social capital on civic activities

Configuration of Social Capital

- *Friendship Range Hypothesis*

People, who have many different contacts in a community tend have a wider scope or visions, incline to feel more embedded to their social locale, and their place attachment and inherent interest in their local community tends to rise as well.

Range => Civic Engagement

Method

- 2 Israeli localities.
- A survey conducted among 443 residents (participants and non-participants of the “Community Networks” systems**:**
- (a) demographics; (b) measures of social capital; (c) ICT use; (d) time use (e) mailing lists' attitudes and patterns of use (f) place attachment, attitude towards the locality and (g) local social network.

Community Political Self Efficacy

Item	Mean	Std. Deviation	N
I take an interest in local politics.	3.2319	1.20978	401
Other people seem to have an easier time understanding complicated political issues than I do. (reversed)	2.8603	1.38219	401
I consider myself well-qualified to participate in local politics.	2.3242	1.24685	401
I feel I have a pretty good understanding of the important political issues facing our community.	3.2993	1.15335	401

Variety of Friends (Alpha = .79

	Mean	Std. Deviation	N
Orthodox religious	.87	.331	439
From Sephardi / Mizrachi origin	.78	.414	439
Druze / Arab	.07	.260	439
Friends who live outside of Israel.	.63	.483	439
Ultra Orthodox religious	.47	.499	439
Secular	.64	.479	439
Conservative or reform	.27	.444	439
Born in Israel	.80	.397	439
Immigrants from English speaking countries	.80	.402	439
Immigrants from the former Soviet Union	.31	.463	439
Immigrants from elsewhere	.43	.495	439
From Ashkenazi origin	.90	.304	439

Organizational Membership in the Community

Item (dummy)	Mean	Std. Deviation	N
Recreation classes and Hobbies - member	.17	.376	430
School activity - member	.21	.411	430
National or local political group - member	.07	.259	430
Social club based on country or city of origin - member	.02	.151	430
Synagogue activities - member	.52	.500	430
Gym or other form of sport activity - member	.40	.491	430
Neighborhood patrol - member	.06	.234	430
Labor union, professional, trade or business association - member	.07	.255	430
Club or organization for senior citizens - member	.02	.151	430
Tenant or neighborhood association - member	.16	.363	430
Civil rights organization - member	.02	.135	430
Support group or self-help program - member	.06	.243	430
Charity or social welfare - member	.22	.415	430
other - member	.08	.270	430

Organizational Leadership index

Item (dummy)	Mean	Std. Deviation	N
Recreation classes and Hobbies - member	.17	.376	430
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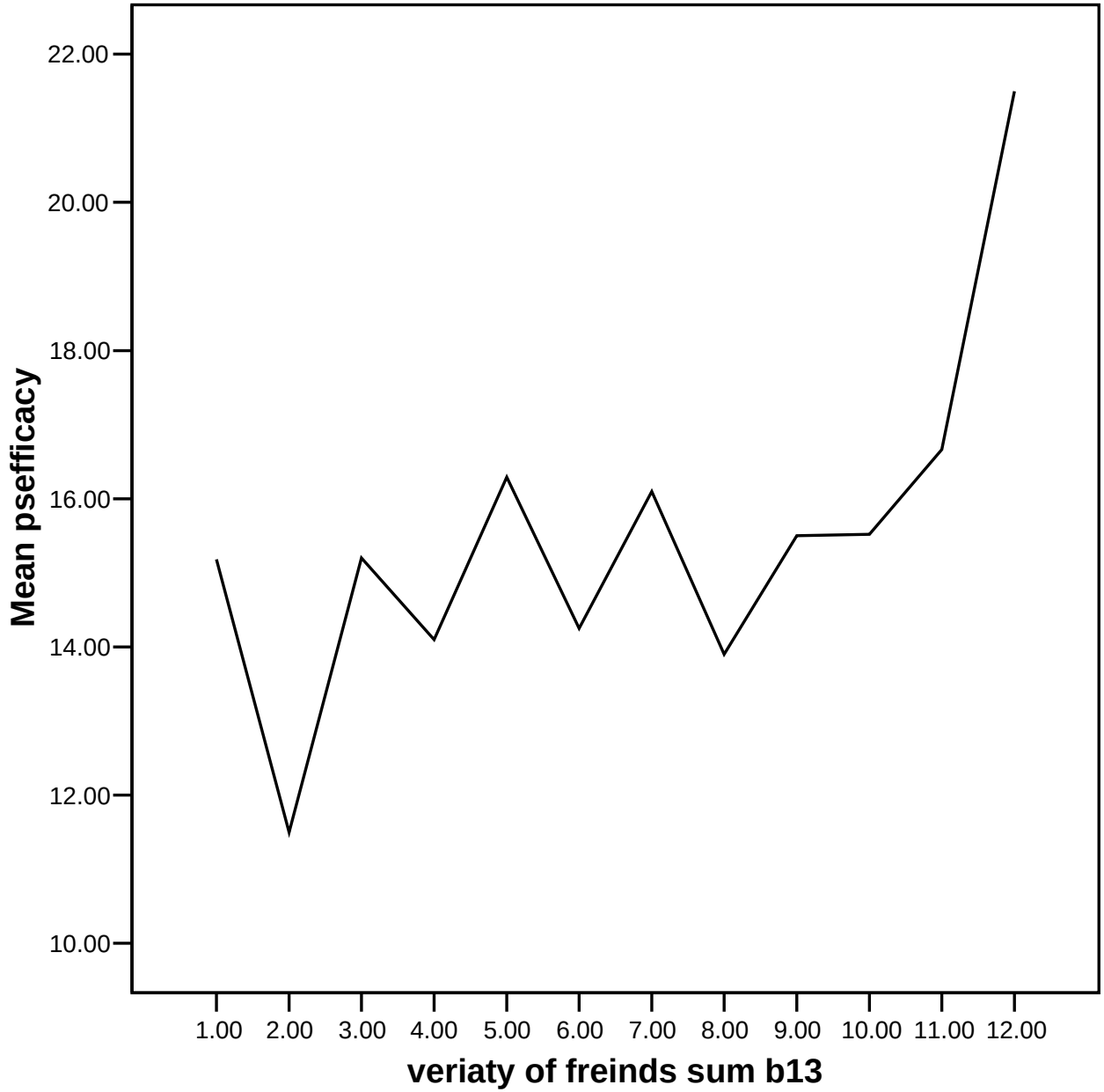
Charity or social welfare - member	.22	.415	430
other - member	.08	.270	430

Civic Activities (Alpha = .76).

Variables (dummy)	Mean	Std. Deviation	N
Signed a petition	.64	.482	351
Gave money to a voluntary organization for a special cause	.85	.359	351
Ran a fundraising campaign for a voluntary organization	.20	.402	351
Gave money to a political campaign	.13	.335	351
Worked on a political campaign	.08	.276	351
Ran for public office	.01	.092	351
Attended a meeting of a neighborhood or tenant association	.40	.490	351
Visited child's school in order to meet staff or other parents	.80	.400	351
Held a position in a neighborhood or tenant association	.17	.377	351
Met informally with neighbors to discuss neighborhood issues	.62	.487	351
Wrote a letter to a public official	.34	.474	351
Phoned or went to see a public official	.36	.480	351
Boycotted a product	.21	.408	351
Organized a group of people around some political issue	.12	.328	351
Went to a political rally, meeting or demonstration	.37	.484	351
Organized a political rally or meeting	.06	.243	351
Collected signatures for a petition	.10	.304	351
Wrote a letter to an editor of a newspaper	.15	.356	351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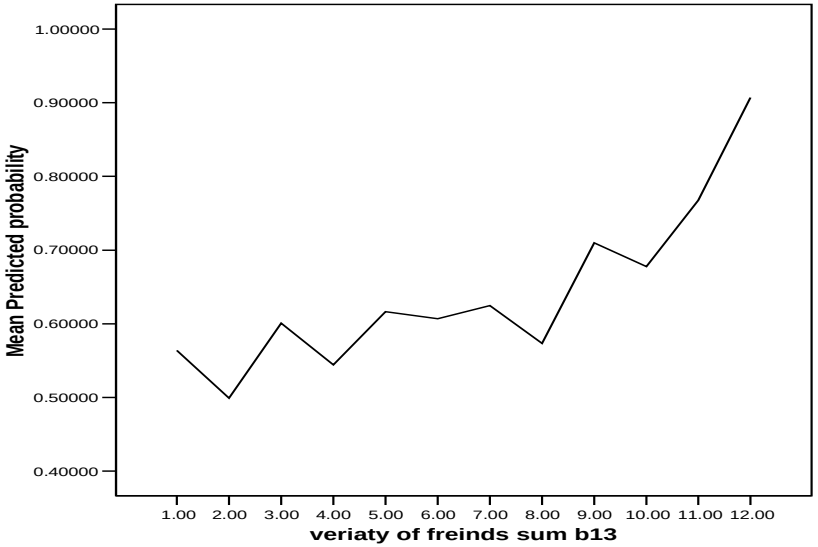
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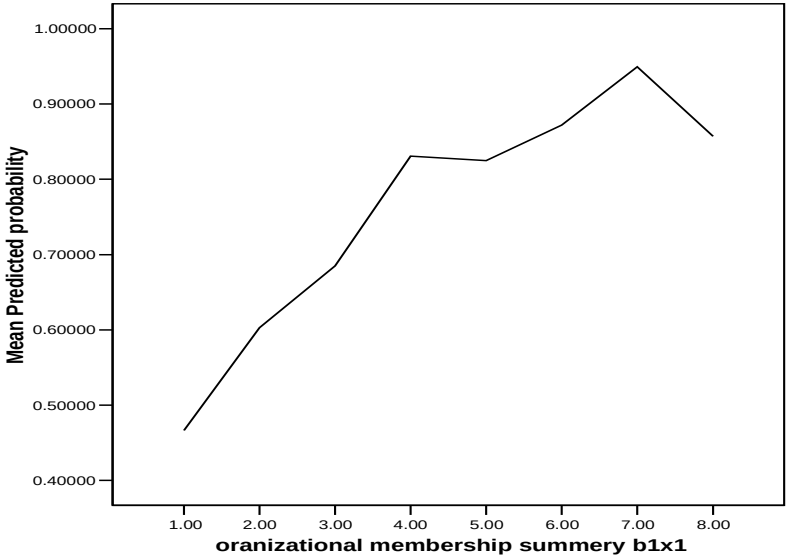
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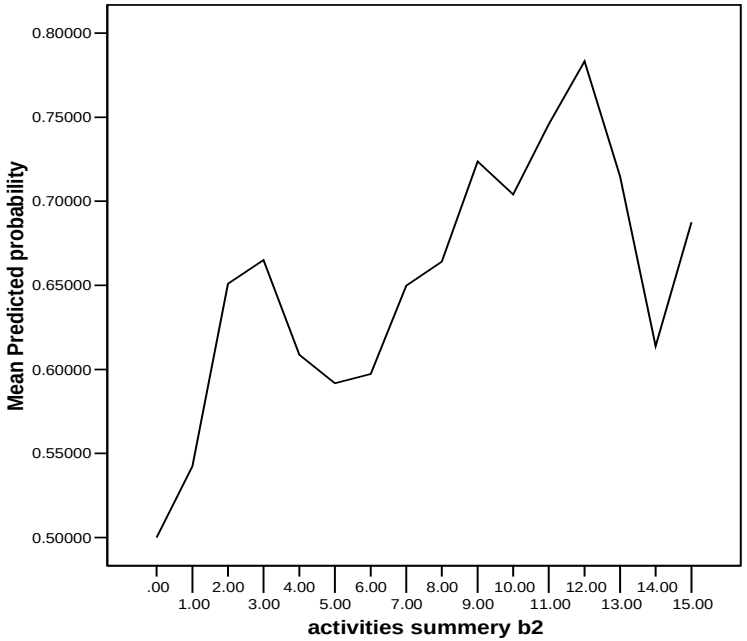
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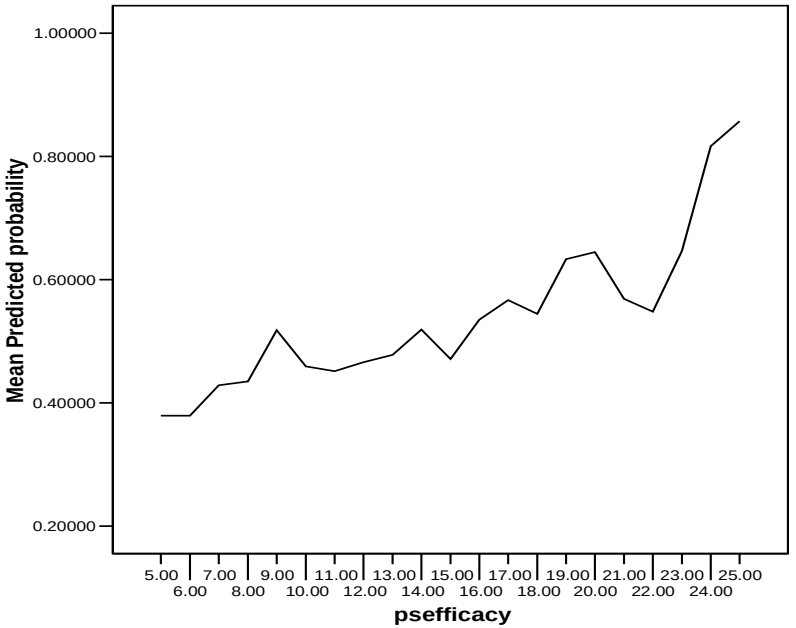
activities summery b2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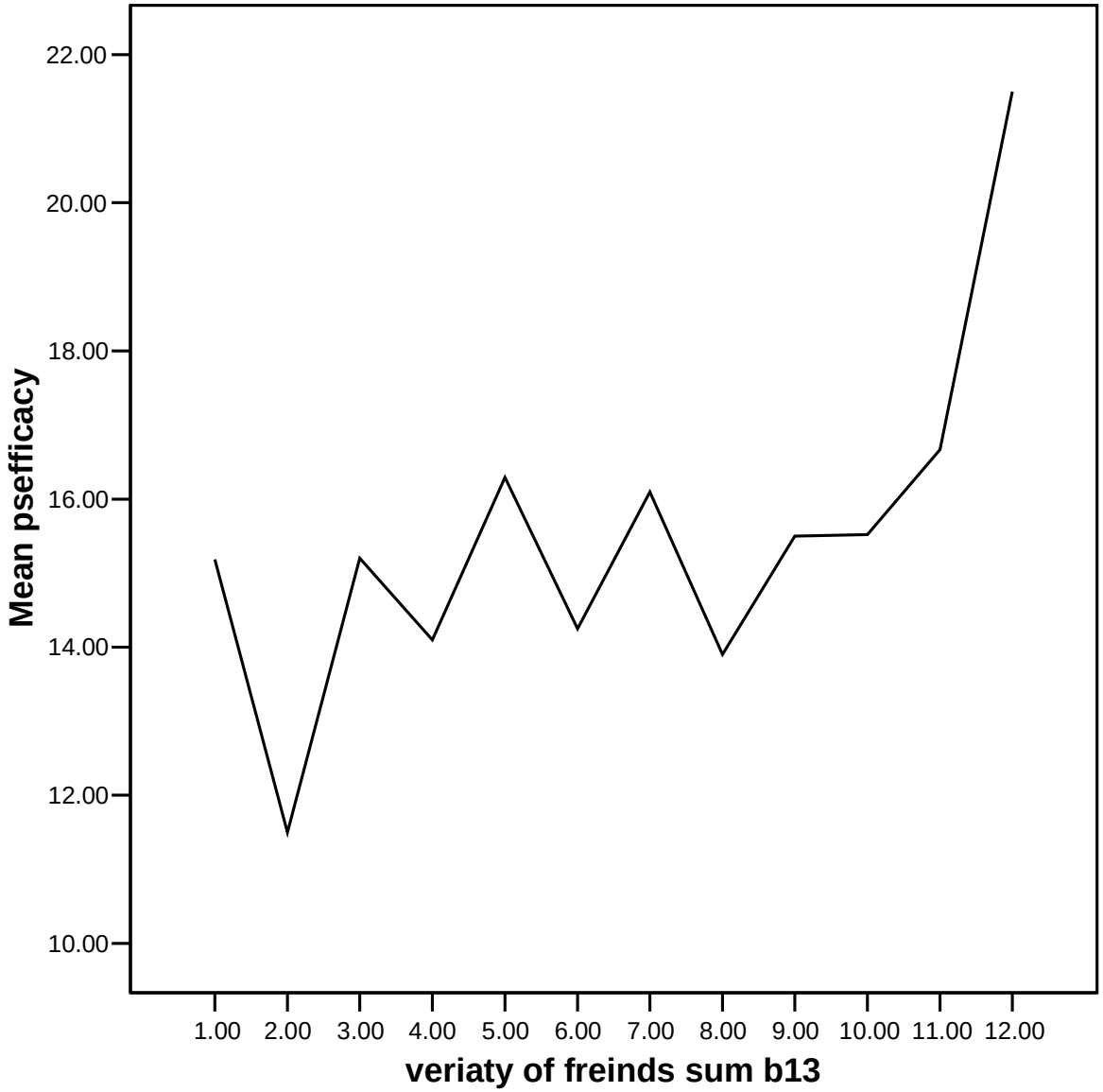
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Table 3:Local Political Self Efficacy by Social Capital

	Standardized Coefficients	*t*
Variables	***Beta***	
Variety of Friends	**10.**	***1.80**
Organizational membership	**25.**	****3.88**
Organizational leadership	**02.**	**32.**
List Member	**11.**	***2.05**
Gender	**210.**	****3.943**
Locality	**-.29**	**-****3.71**

OLS **membership in local organizations**

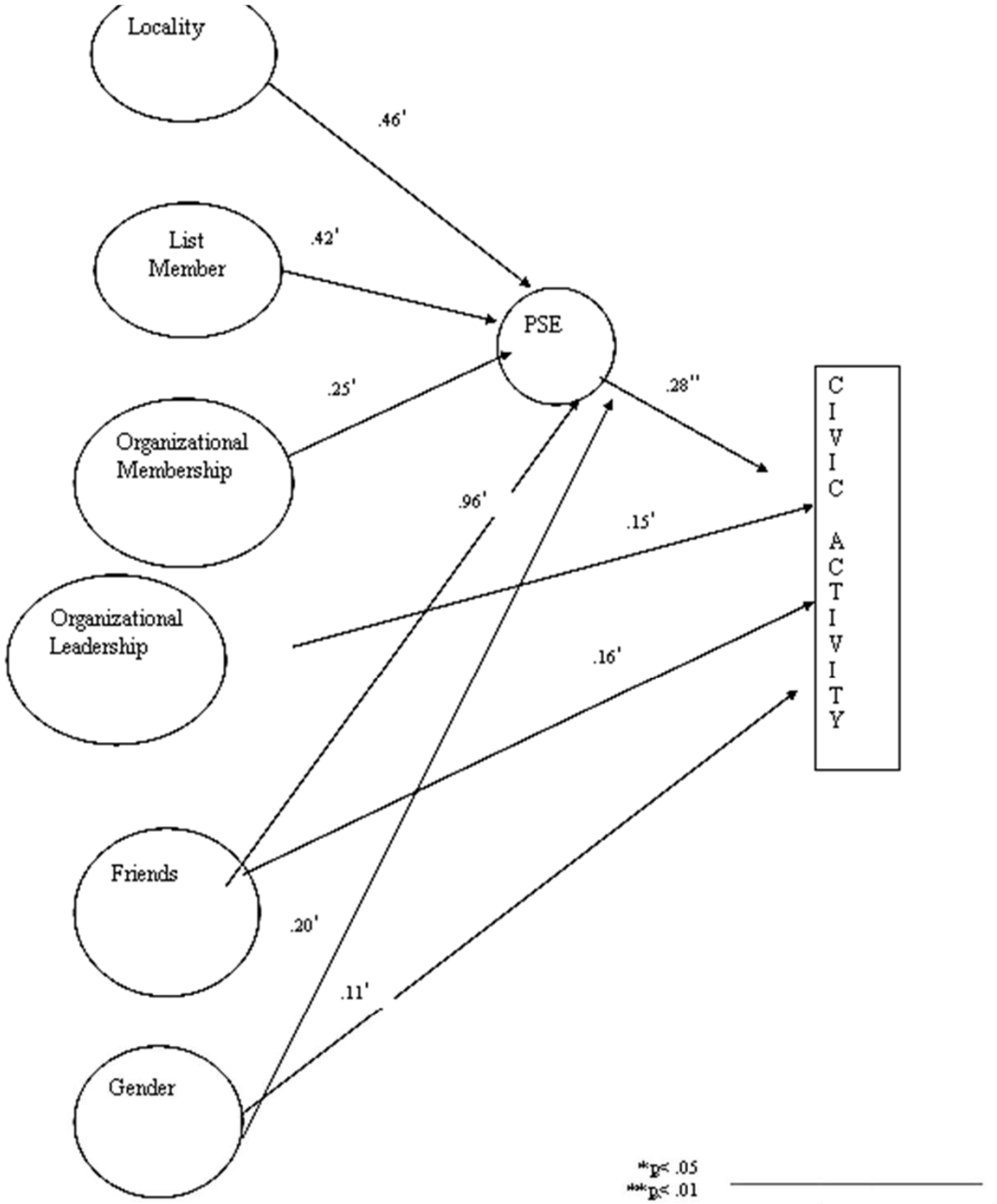
Beta	SE	B	
.16**	.006	.020	Age
-.07	.13	-.20	Male
-.05	.21	-.23	Married
.02	.03	.01	Children under 18
.01	.05	.01	Education
-.01	.00	-.01	Length of residence
.08	.15	.25	Internet access t1
-.01	.37	-.09	Internet access t2
.04	.01	.01	Reciprocity t1
.13**	.02	.07	Reciprocity t3
.05	.01	.01	Talking with neighbors t1
.07+	.01	.01	Talking with neighbors t2
.02	.01	.06	Attitudes to Technology t1
.02	.01	-.05	Attitudes to Technology t3
.10+	.14	.26	List member1
.22**	.19	.89	List member2
	.88	-1.30	Constant

OLS regression predicting **community attachment**

Beta	SE	B	
.097	.024	.044	Age
.46	..75	.076	Gender (1=male)
.080	.778 .	1.276	Married
.03	.02	.015	Length of Residence
.10 *	.225	.099	Number of children
195*	.375 .	.096	Education
.09	.49	.86	member1
.09*	.69	1.36	member3
.55	.722	.066	Internet access1
.0127	1.37	.473	Internet Access 3
.03	.03	.02	Neighbors talk1
.12**	.01	.05	Neighbors talk3
-.06	.04	-.04	Attitudes to technology 1
.25	.06	.01	Attitudes to technology 2
.18*	.03	.13	Attach1
	.19**	27.8	Constant
.13			Adj r square

OLS regression predicting **participation in community activities**

	B	S.E.	Beta
Age	.002	.009	.013
Male	-.149	.174	-.042
Married	.057	.292	.010
Number of children	.021	.040	.026
Education	.116	.073	.084
member1	.137	.185	.044
member3	.707	.260	.142*
Internet access1	.079	.210	.020
Internet Access 3	.188	.516	.019
Talking with neighbors t1	-.004	.013	-.016
Talking with neighbors t2	.009	.007	.061
Attitudes to Technology t1	-.07	.02	.01
Attitudes to Technology t2	.02	.03	.03



? Age (insignificant effect) was omitted from Figure 3

Full Screen
Close Full Screen

Findings

- The level of residents' civic engagement in their local community is highly associated with individual's social capital
- List members have more pronounced stock of social capital.
- List members effect on Civic Activities is Mediated by :Local Political Self Efficacy
- We found that electronic community networks reflect the social structural attributes of residents' relational patterns

- Difference with national politics ?

Comparative Context (Smith, 2013)

- “Class differences, especially those related to educational attainment, are prominent in political engagement of all kinds, whether that activity takes place offline, online, or within the specific context of social networking sites (SNS), though the trend is somewhat more moderate in SNS”.

Growth and Integration

- “There has been major growth in political activity on SNS between 2008 and this survey in 2012.
- The number of social networking site users has grown from 33% of the online population in 2008 to 69% in 2012.
- There have been major jumps in the proportion of SNS users who post political news, who friend or follow candidates, and who joined an SNS group organized around political or social issues.
- Notable shares of SNS users say their activity on the sites has prompted them to learn more about social or political issues and to take action around those issues. “

Conclusion

The internet is socially embedded

Digital Divide is linked to general inequality

Digital Divide direct effect

Digital Divide indirect effect:

Digital Divide => Internet use =>

Uneven accumulation of social capital => unequal civic engagement

Thanks for your attention!

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