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# Transcending e-Government: a Case of Mobile Government in Beijing

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#### Towards a Mobile Society

Convergence, Ubiquitous Computing

Mobilization of Interaction, challenge of an



# **Understanding Mobility**

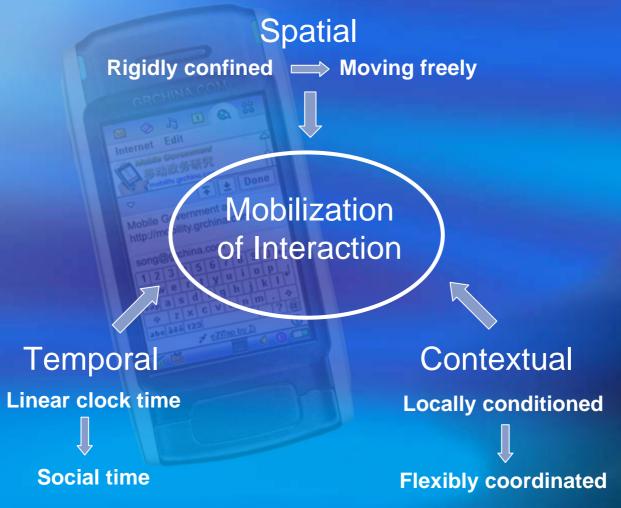
- Micro, Remote and Local Mobility
- Local, Regional and Global Mobility
- Wandering, Traveling and visiting



Kristofferson and Ljungberg, 2000



#### Mobility Beyond the Obvious





Kakihara and Sørensen, 2002

#### Fluid Work Practice

Region Network **Fluid** Relation Variation and Boundary **Transformation** 

Adopted from Social Topology (Mol and Law, 1994)



#### **Duality of Mobility**



- An interactional view: mobility as stability:
- An organizational view: mobility as fluidity:
- Mobility does not mean independence from place but rather an optimal dialectic between real and virtual environment, between stability and fluidity

Pica and Kakihara, 2003



# E-Government and Mobile Government



- E-Government as online Internet portal?
- Government Response to address the mobility of government itself, and the mobile society at large.



#### China: a Dynamic Country









# Beijing: the Capital City

Population: 13.819 million
 Area: 16800 km²

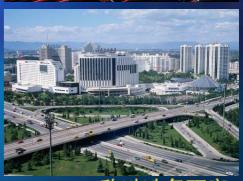
Dongcheng district: one of the central district in Beijing
 Population: 625,000

Area: 25.38 km<sup>2</sup>











#### ICT in China at a Glance



China (mainland only), till Dec. 2004: 94 millions Internet users with penetration 7.16%; 335 million mobile users with penetration: 25.5%.

Beijing, till Dec. 2004:

4.02 million Internet users with penetration 27.6%;

13.359 million mobile users with penetration 90.6%.

#### Mobile Life







#### **Local Governance**







Local Government Structure: Municipal level > District level > Neighborhood level > (residents committees)

 Challenges to municipal management of a fast changing city

# Mobile Government Initiative in Dongcheng District of Beijing Challenges

- Fragmented functions
- Highly bureaucratic
- Inaccurate information
- Poor performance evaluation
- Inefficient municipal management



#### Initiative to Action

- Determination from the top management of the district to take advantage of ICT (mobile technology, GPS, GIS) to reinvent the municipal management.
- Staffs with mobile device support were send to the street to report problem and interact with citizens.









## Setting Up Two Centers: Supervision Center

 Supervision center: newly established independent entity, with 400 recruited mobile supervisors, also operate a call center.





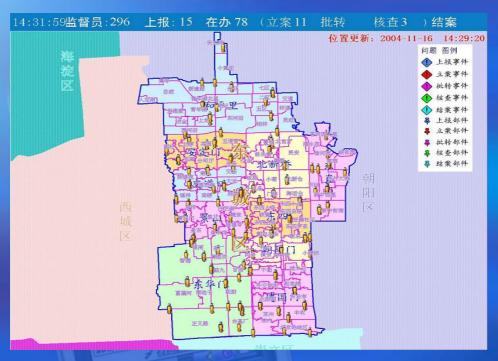
#### Setting Up Two Centers: Command Center

 Command Center: based in District Integrated Municipal Administration Commission, its function of coordination is reinforced.





## Grid Management

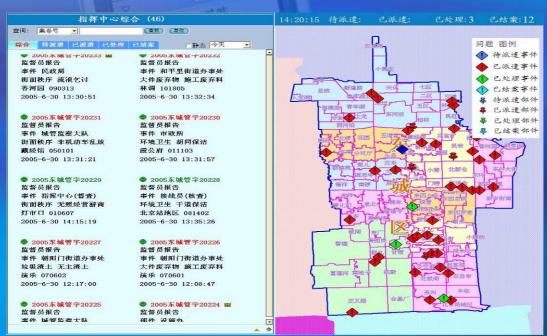


- 25.38 km² is divided into 1625 cells.
- Survey and Map of all public facilities in a relevant cell in the GIS system.



#### Clarify Accountability

 Identify 4 layers of responsible entities: the district government, 10 neighborhood committees, 137 residents committees, institutions in the relevant 1625 cells.





#### Mobile Supervisors

- Report to and receive orders from the supervision center
- Responsible to inspect and confirm problems in relevant cells











#### Mobile Supervisors

 Constant connection to the supervision center through the mobile handset

Position and working status monitored by

the supervision center







## Process Re-engineering

- Information collected and checked in the field
- Real-time information sharing among the mobile supervisors and the two centers
- Comprehensive data base established in the district

#### Implication of Implementation

- Mobile technology together with GIS, GPS technology and grid management, enabled the district to better manage its mobile work with both efficiency and effectiveness.
- In mobile government implementation, the most important issue is the alignment of organizational change with organizational strategic goals, followed by information flow integration and then technology issues.
- Mobile technology goes together with organizational change and process reengineering,
- And is implemented through empowered, motivated and trained people.



#### Before and After

- Before mobile government
   Fragmented, highly bureaucratic, inefficient
- After mobile government
   Problem identified and confirmed by mobile supervisor real-time, better information sharing, better coordination, more efficient problem solving, better performance evaluation, fluid work practice, build up trust



#### Transcending e-Government

 Move from tethered, PC-centric model to mobile, people-centric techniques and strategies, transcending the old government service delivery model.



#### Service Delivery Paradigm Shift

**Government Service Delivery Model in Mainframe or Pre-ICT Era** 



Internet-based e-Government Service Delivery Model



**Mobile Government Service Delivery Model** 





## Distinct "Managed" Fluidity

- A managed fluidity which is distinct from those of "post modern professionals"
- Flatter but enhanced hierarchy
- "managed" fluid organization
- Strong potential to eradicate complicated bureaucratic procedures and to interact with people in their own context
- Potential of more horizontal and vertical integration.

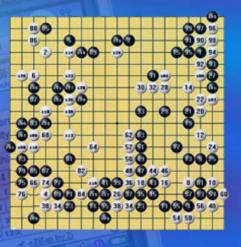


## Social Topology

Region

Network

Fluid





Boundary

Relation

Variation and Transformation

Adopted from Mol and Law (1994)



# Social Topology, ICT and Government Service Delivery Model

Social Topology	Region	Network	Fluid
Characteristics	Boundary	Relation	Variation & transformation
Typical ICT Application	Mainframe (and Pre-ICT)  Mobile Government at:  Mobile Government at	Telephone, Internet, e-mail, end user computing	Mobile phone, PDA, Other convergence technology, Mobile computing or Ubiquitous computing
Interaction	Physical and co- located	Virtual	Virtual+ Physical
Service Delivery	Bureaucratic, office based	Standard "transactions", informational	Action oriented, coordinated, real time
Government Model	Hierarchy	Internet Based E- Government	<b>Mobile Government</b>



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