



Innovation 2.0: Redefining Innovation in the Age of Digital Economy

创新2.0：重新定义数字经济时代的创新

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1st “Internet+” = New Generation ICT + Innovation 2.0
“互联网+” = 新一代ICT + 创新2.0

2nd Four Characteristics of Innovation 2.0
创新2.0的四大特征

3rd Managing Beijing: 北京城管案例：迈向城域开放众创空间
towards City as an Open Mass Innovation Space
[COMIS]

创新2.0：重新定义数字经济时代的创新

Innovation 2.0: Redefining Innovation in the Age of Digital Economy

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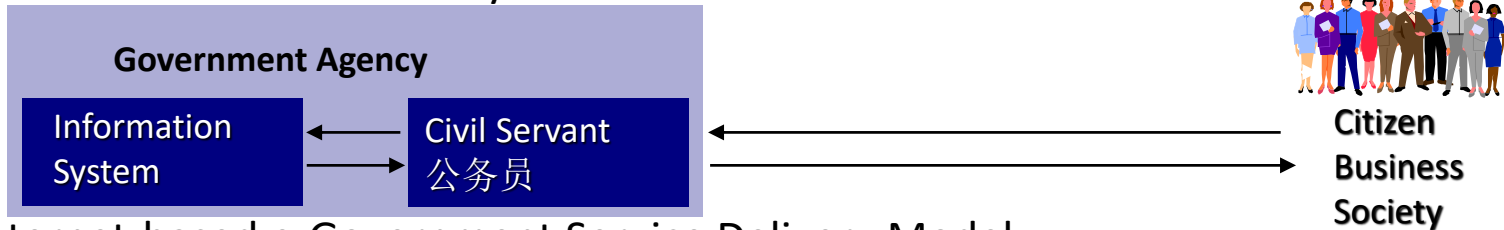
创新2.0：重新定义数字经济时代的创新

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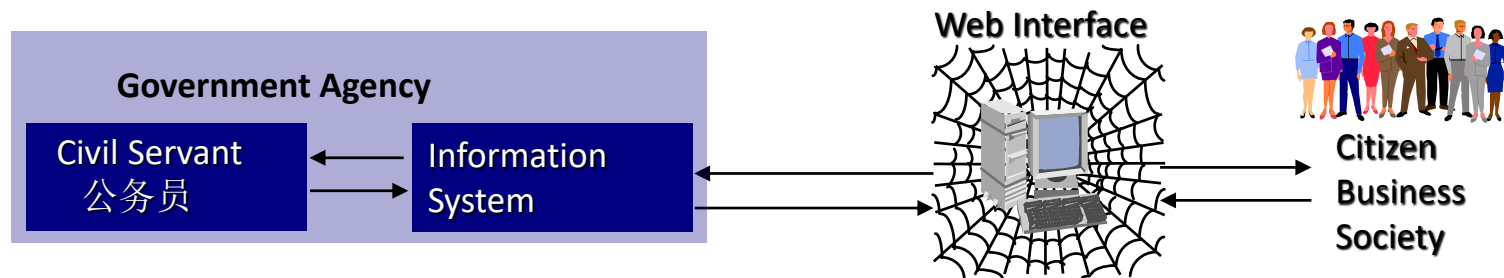
ICT and Public Service Delivery

ICT与公共服务提供

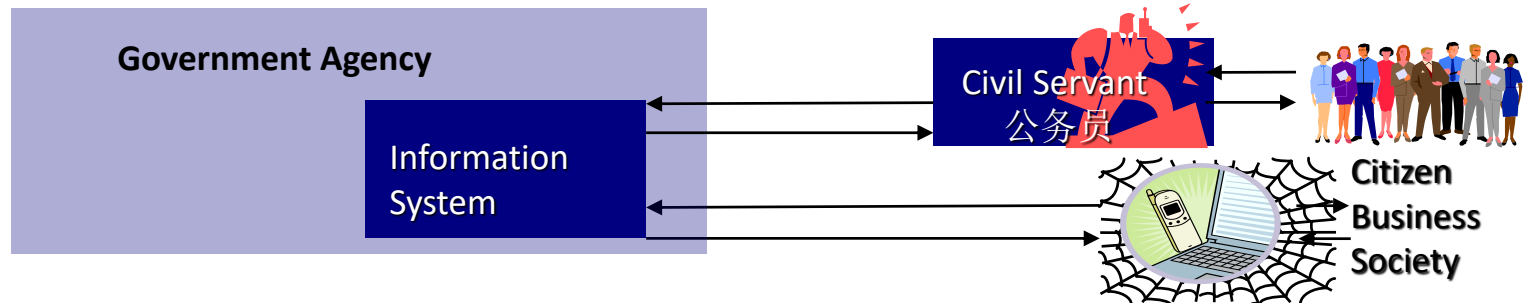
Government Service Delivery Model in Mainframe or Pre-ICT Era



Internet-based e-Government Service Delivery Model



Mobile Government Service Delivery Model



Social Topology, ICT and Government Service Delivery Model

[Song and Cornford \(2006\) Mobile Government: Towards a Service Paradigm, ICEG 2006](#)

ICT: From Deliberation to Collaboration

ICT: 从支撑协商到支撑协作

The new Generation of ICT pushed forward ubiquity of computing, network and data, thus the democratization of innovation. Based on open knowledge infrastructure in the environment of innovation 2.0, the role of ICT is changing to enable collaborative democracy in the era of innovation 2.0, from the **tool of dialogue and discussion** to the **tool of action and creation**, from enabling **deliberation** to enabling **collaboration**.



Deliberation



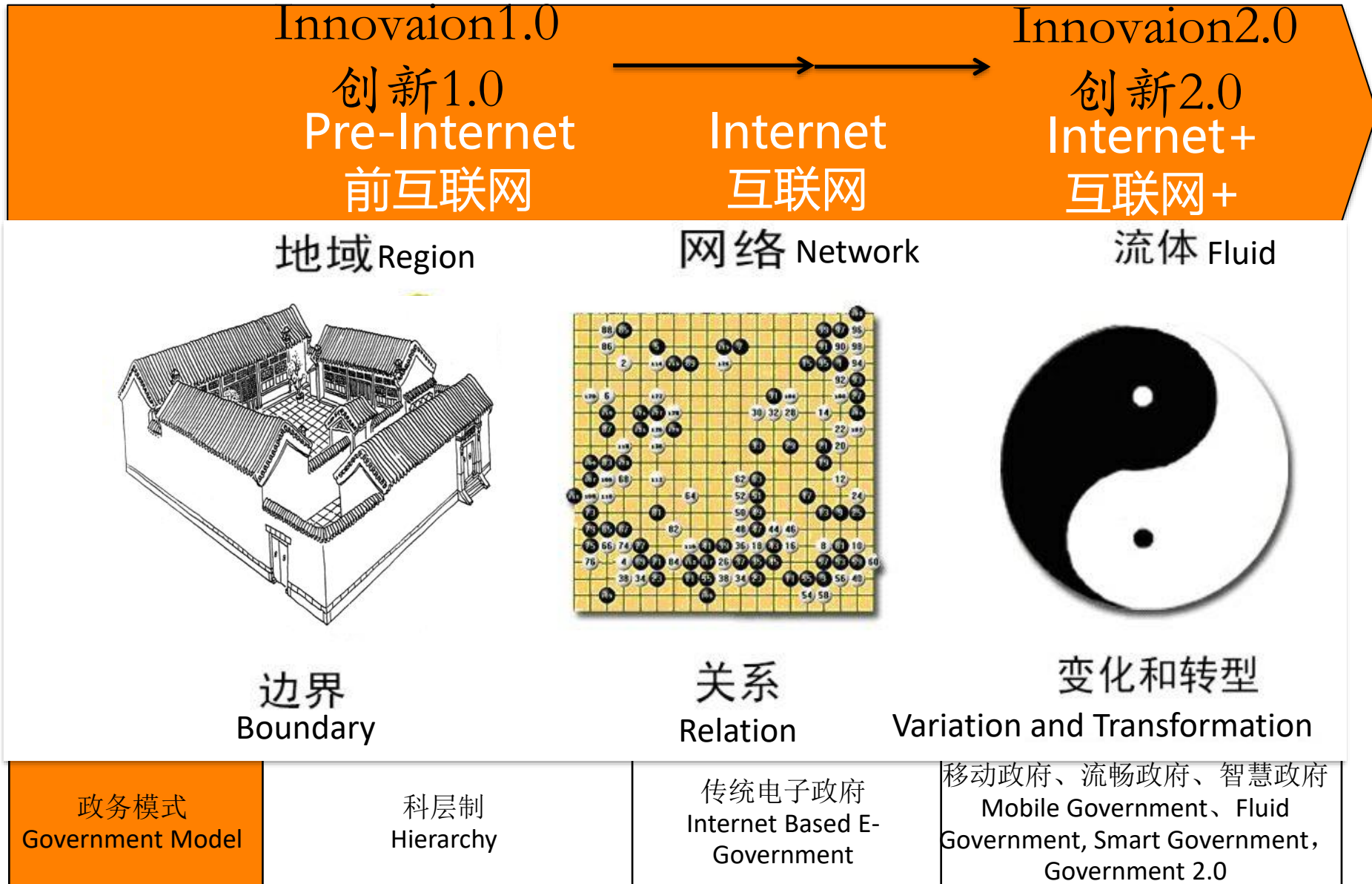
Collaboration

Social Topology, ICT, and Innovation Paradigm Shift

Innovation 1.0 创新1.0 Pre-Internet 前互联网		Internet 互联网	Innovation 2.0 创新2.0 Internet+ 互联网+
社会拓扑 Social Topology	地域 Region	网络 Network	流体 Fluid
特征 Characteristics	边界 Boundary	关系 Relation	变化和转型 Variation & transformation
典型信息通信技术应用 Typical ICT Application	主机、局域网（以及前ICT时代） Mainframe, local network (and Pre-ICT)	电话、互联网 Telephone, Internet, e-mail, end user computing	移动, 泛在技术(物联网, 云计算, 大数据, 人工智能等) Mobile, Ubiquitous technology (IoT, Cloud Computing, AI, etc.)
交互 Interaction	物质、同一地点 Physical and co-located	虚拟 Virtual	虚拟+物质 Virtual+ Physical
服务提供 Service Delivery	官僚制、基于办公室 Bureaucratic, office based	标准“交易”、信息的 Standard transactions, informational	用户中心、行动导向、开放、定制、协同、实时 User-Centric, Action oriented, Open, Tailored, coordinated, real time
全球化 Globalization	国家 Countries	企业 Companies	个人 Individuals
政务模式 Government Model	科层制 Hierarchy	传统电子政府 Internet Based E-Government	移动政府、流畅政府、智慧政府 Mobile Government, Fluid Government, Smart Government, Government 2.0

[Song and Cornford \(2006\) Mobile Government: Towards a Service Paradigm](#)

Social Topology, ICT, and Innovation Paradigm Shift



[Song and Cornford \(2006\) Mobile Government: Towards a Service Paradigm](#)

Innovation 2.0:

From Manufacturing Paradigm to Service Paradigm

创新2.0：从生产范式向服务范式的转变



生产范式



服务范式

Manufacturing Paradigm

Service Paradigm

Innovation in the Industrial Age vs. Innovation in the Digital Age

Dissolving of traditional boundaries

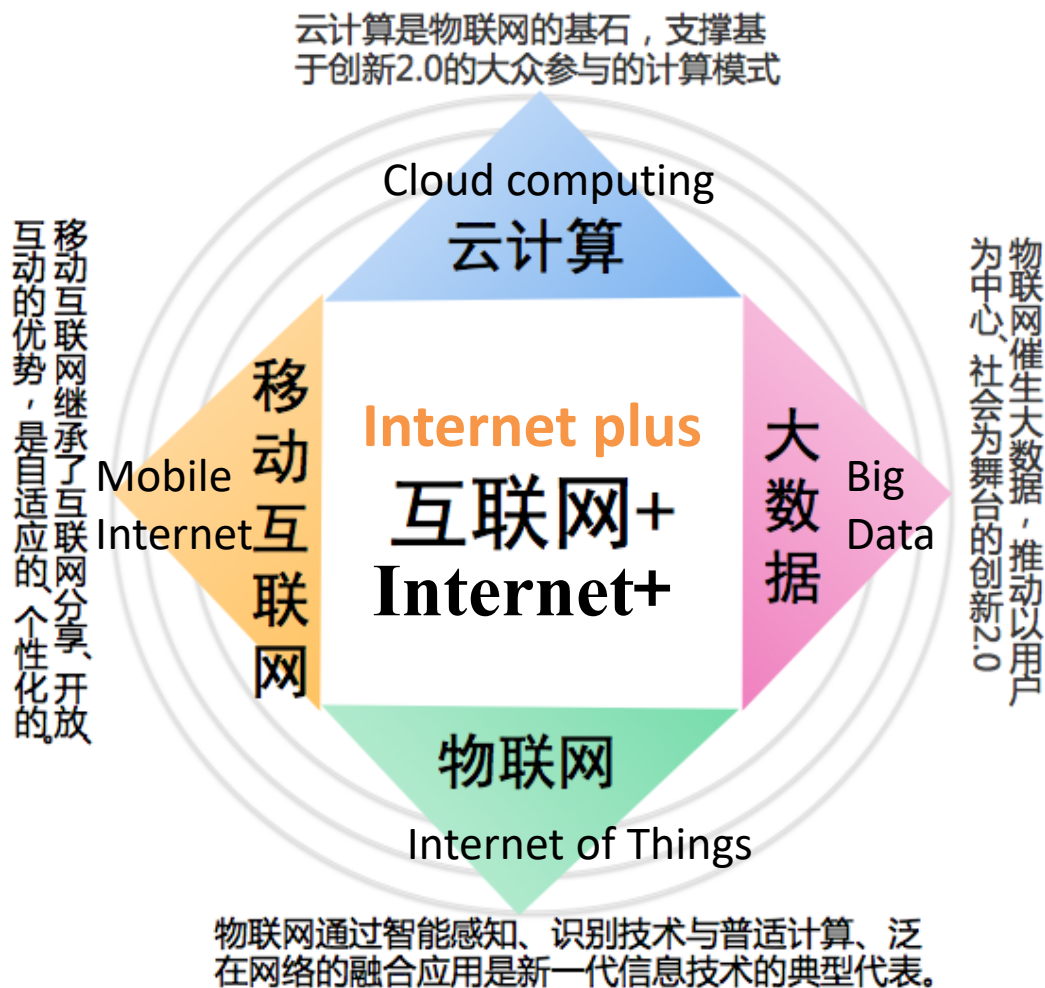
Innovation of elite to mass Innovation

From “+Internet” to “Internet+” : Innovation Paradigm Shift from Industrial Economy, Industrial Society to digital Economy, Knowledge Society

工业时代的创新 1.0 Innovation 1.0 of Industrial Age	数字时代的创新 2.0 Innovation 2.0 of Digital Age
传统电信业 Traditional Telecom	ICT服务商 ICT Service Provider
传统广电 Traditional Broadcasting and Television	ICT融合下的新媒体 New Media of ICT convergence
门户网站 Portal	微博等社交媒体 Social Media such as Weibo
交友网站 Friends-making Website	SNS社交网络 Social Network Service
传统工业自动化 Traditional Industrial Automation	物联网智能化 Intelligence of Internet of Things
传统实验室 Traditional laboratory	开放创新空间 Open Innovation Space
办公室办公 In-house Office	移动办公 Mobile Office
科层制封闭组织 Hierarchy, Closed Organization	灵活外包开放协作组织 Agile, Open, Collaborative Organization
以生产者为中心的生产范式 Producer-centric manufacturing paradigm	以用户为中心的服务范式 User-centric Service Paradigm
基于机构的高度结构化 Highly Structural organization	基于个体的无线、多跳、点对点、自组织 wireless, ad hoc, self-organization
企业1.0 Enterprise 1.0	企业2.0 Enterprise 2.0
政府1.0 Government 1.0	政府2.0 Government 2.0
.....
数字城市 Cyber City	智慧城市 Smart City
数字城管 Digital City Admin.	智慧城管 Smart City Admin.

Digital Technology Reshaped by Innovation 2.0

创新2.0推动了互联网+, 重塑了新一代信息技术



Internet+ : a Chinese Discourse of Digital Economy

“Internet+” = New Generation ICT + Innovation 2.0

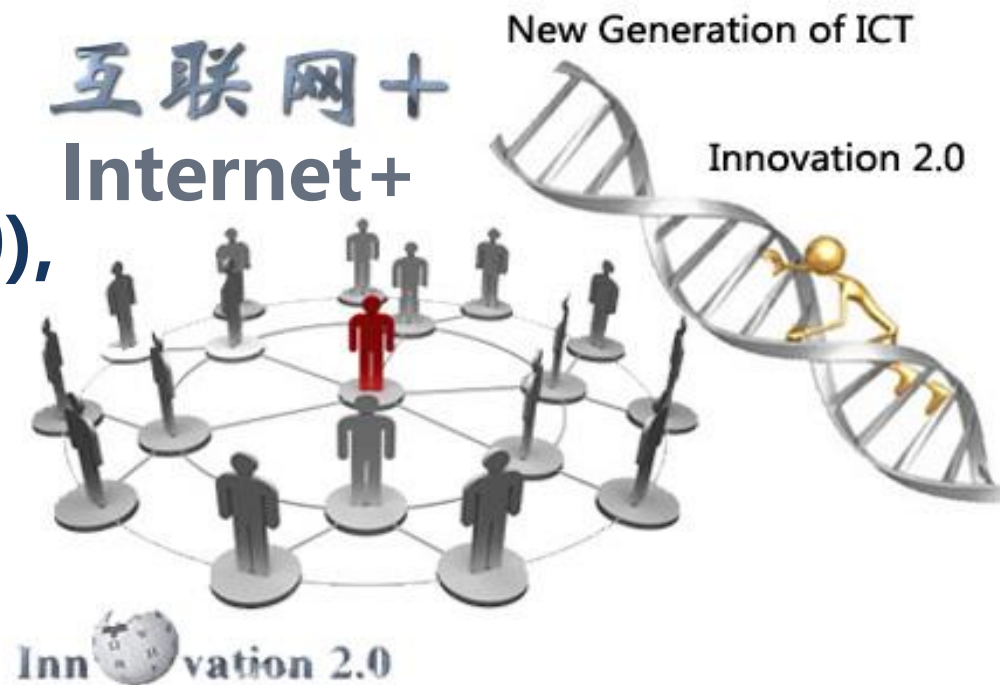
“互联网+” = 新一代ICT + 创新2.0

Emergence of New Morphology of

**Business (Enterprise 2.0),
Government (Gov 2.0),
City (Smart City),
Governance
(Collaborative
Democracy)**

...

Mass Entrepreneurship and Mass Innovation.



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From ICT Convergence to Innovation Emergence

从技术引领到创新驱动

First mGov Seminar China,
Peking University, 2006



Focus on research and influences of pervasive and ubiquitous technologies, represented by mobile technology, in government, organizations, and in society at large.

“Innovation 2.0 in a Knowledge-based Society”
2nd mGov Seminar China, Peking University, 2008



Focus innovation 2.0 emerged in the mobile ubiquitous data and networking environment. Typical Innovation 2.0 mode of **Living Lab**、**Fab Lab**、**Application Innovation Park (AIP)**. And typical case of **web 2.0**, **open source**, **digital fabrication**, etc.

<http://www.mgov.cn/innovation/20.htm>

Characteristics of Innovation 2.0

创新2.0的四大特征



用户创新

User Innovation



开放创新

Open Innovation



协同创新

Co- Innovation



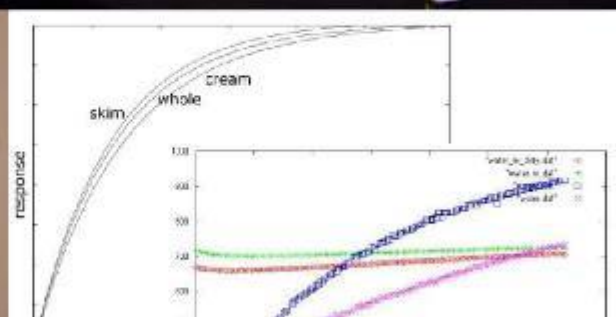
大众创新

Mass Innovation



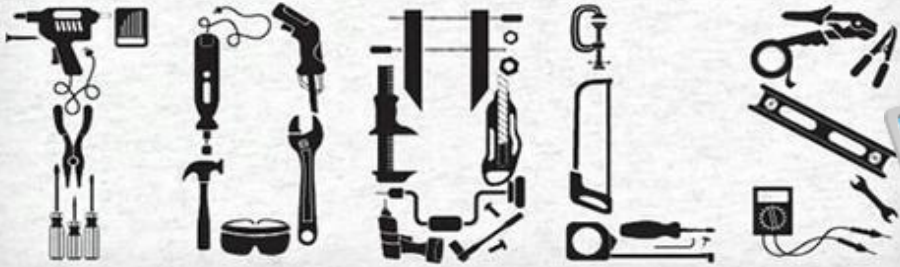
用户创新 User Innovation

The power of Internet empowers ordinary people. User Innovation become a common phenomenon.



MAKERS

DO IT WITH

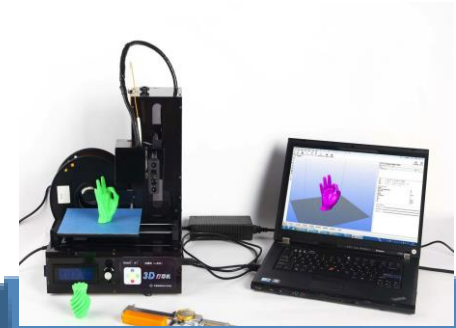


Personal
Communication

Personal
Computing



Personal
Fabrication



User Innovation Enabled by ICT Evolution

The development of Fab Lab initiative promote global tide of makers and new industrial revolution.

[Song, Chen, etc. \(2008\) Innovation Mode of Fab Lab and Its Enlightenment, Scientific Management Research, Vol. 26, No. 6,](#)

Characteristics of Innovation 2.0

创新2.0的四个特征



用户创新

User Innovation



开放创新

Open Innovation



协同创新

Co- Innovation



大众创新

Mass Innovation

开放创新 Open Innovation



Network of Living Labs

– a first step towards a new Innovation System!

We are creating a network of Living Labs around Europe.

If you believe in involving people in the development of new ICT solutions and see this as a key issue for the development of European society-you are welcome to join in the process of defining and developing the European Network of Living Labs.

- Latest News -

Expression of Interest for 2nd wave of the European Network of Living Labs now open (open until May 16 2007) >

Always: Welcome to join the Open Innovation Community >

**21-23 May 2007: European Network of Living Labs Event, Guimarães, Portugal
Read more >**

**15-22 May 2007: Launch of the European Network of Living Labs by the Finnish EU-presidency >
Press release > Presentation available here >**

Open Innovation

Open Innovation 2.0

Open Innovation 3.0 as an ecosystem

Of Government, User, Industry, Academia and R&D

me | The mission | The concept | About us | The network | Open innovation community | Even

面向创新2.0的“政用产学研”创新生态

The most powerful Living Labs

The home of the U.S. Government's open data

Here you will find data, tools, and resources to conduct research, develop web and mobile applications, design data visualizations, and more.

GET STARTED

SEARCH OVER 107,679 DATASETS



**OPEN
DATA
USER
GROUP
REFRESH**

Apply now!



New UK Location Metadata Editor



The Linked Open British National

Characteristics of Innovation 2.0

创新2.0的四个特征



用户创新

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Open Innovation



协同创新

Co- Innovation



大众创新

Mass Innovation

协同创新 Co-Innovation

Collaborative Innovation of Government, User, Industry, Academia and R&D, powered by networking tools and data intelligence.

ICT: From tools of communication for deliberation, to tools of Interaction, manufacturing, knowledge management and Visualization which enables better collaboration of data intelligence, knowledge, resources, performance, action and creation.



Song, Bai, An, etc. (2016) "Collaborative Innovation from Maker to Mass Innovation in Perspectives of Innovation 2.0: Case Studies and Implications", e-Government



“listening to the city”

Critics of City

Consultation in New York

精心策划的协商会确实给了人们关心民意的表象，但同时，却遮掩了正在上演的真正的权利政治，剥夺了纽约人实际参与而不是简单反应的机会。

New York Times Cover Story in 2002

4500个纽约人现场出席，800人在网上参与，共同讨论世贸中心重建设计方案，备受世人瞩目

30°C 晴 我爱北京 我为城市我为主

我要买菜 查找我身边的便民菜市场

地图查询 查找我身边的城管执法部门

举报投诉 向城管执法部门举报环境秩序问题

咨询建议 咨询城市管理问题

城管官网 了解更多城市管理方面的信息

城管维基 参与城市管理共建共享共治

呼叫热线 拨打96310北京城管执法热线

城管问计 MYCITY WIKI 注：可按文件标题

首页 文件分类 城管主站 城管地图

一线和市民参与发起的文档 更多>>

APEC蓝，能不走吗？ 记得国庆节后的一段时间，北京又遇到了一场比较重度的雾霾天气，...[详细内容]

加强人口控制 北京外来人口无序流入问题严重，对北京的政治、环境、资源...[详细内容]

公交站牌上贴小广告，影响市容 在一些大点的公交站，站牌上被贴上很多宣传小广告...

最近更新

关于2015年加强和...	2014-11-13
APEC蓝，能不走吗...	2014-11-12
当APEC离开，请把...	2014-11-12
"APEC蓝"让我们...	2014-11-12
加强人口控制	2014-11-12
全国政协调研"智慧城...	2014-11-11

“I Love Beijing”
Government Wiki
for City Management
问计于民，面向行动，实现了市民“自我管理”和政府管理的融合

Characteristics of Innovation 2.0

创新2.0的四个特征



用户创新

User Innovation



开放创新

Open Innovation



协同创新

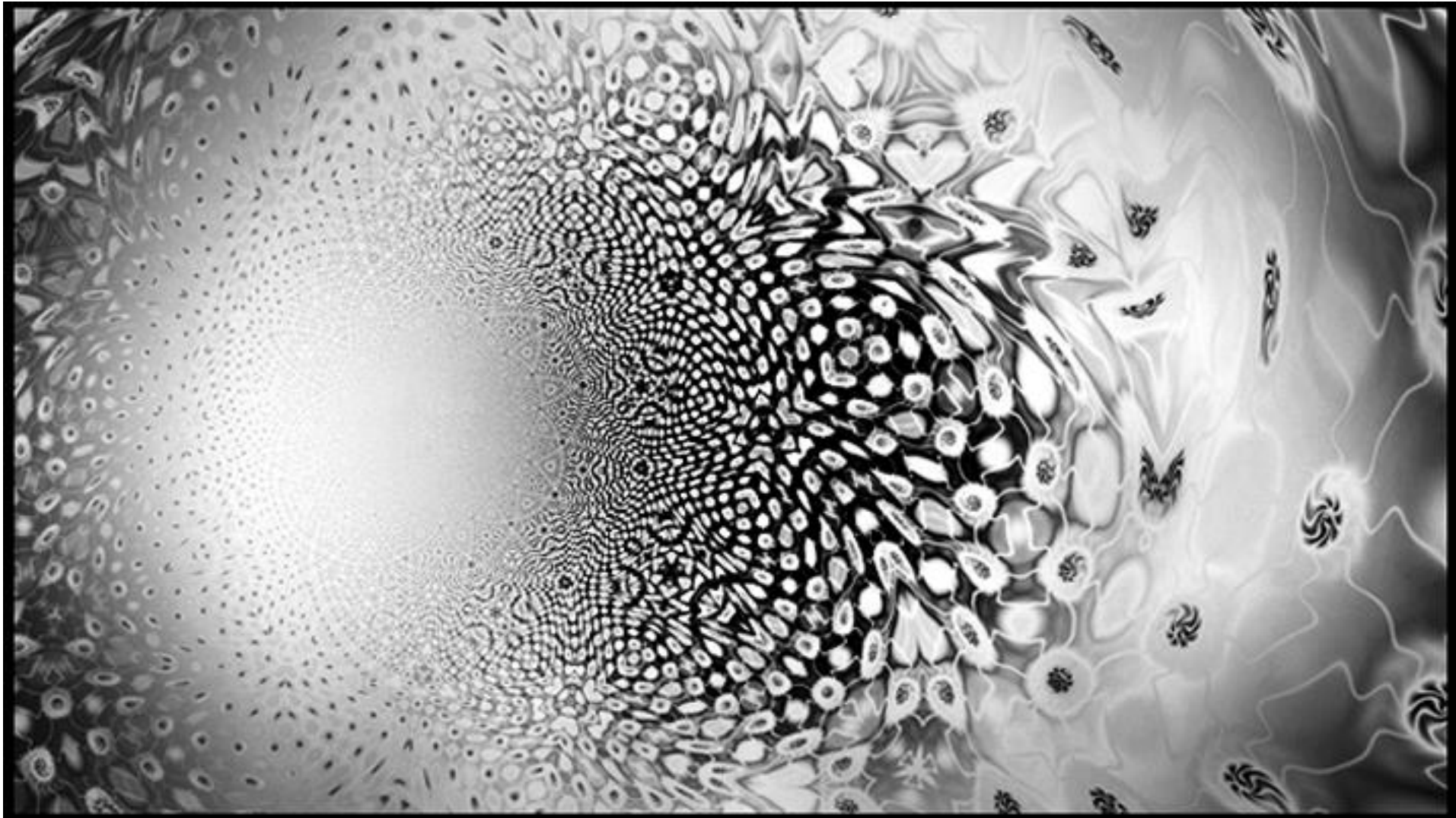
Co- Innovation



大众创新

Mass Innovation

Mass Innovation as emergence in perspective of complexity Science.



**New development Strategy of China:
Mass Entrepreneurship and Innovation**

City as an Open Mass Innovation Space

城域开放众创空间

将是推进创新2.0时代大成智慧、
新型智慧城市建设的新路径、新载体；
“大众创业、万众创新”深入发展的新趋势；
是创新2.0时代的群众路线新实践。



Essence of Innovation 2.0

互联网和信息技术的发展，使我们可以
在现实世界物理空间之外营造一个影射
“信息时代/知识社会”的虚拟现实的
“世界（场景）”，即构建虚拟化网络
空间。



创新2.0的实质(机制)

借助虚空（Cyber）之力重构实
空（physical）业态

- 1. 虚拟与时空对接，将虚空中新一代创新基因注入实空，促其中传统业态嬗变重构；
- 2. 以虚空中的知识、信息资源取代实空中的人力、自然资源，使业态赖以运作的资源由原来的私有排他性、日常消耗性、运作低效性变成开放共享性、永续可用性、运作高效性，为重构新业态创造条件；
- 3. 以虚空中云物移大智等深度网信技术作用于实空中的传统业态，在经历碰撞、交互、融合过程后催生该业态升级换代；
- 4. 加入虚空中互联网思维，催生实空中新业态的管理创新、制度创新，以保障科技创新。



用户创新

User Innovation

从个人通信，到个人计算，到个人设计、个人制造



开放创新

Open Innovation

从内部创新资源开发，到外部资源整合，到创新生态系统营造



协同创新

Co-Innovation

从信息共享、沟通、交流到共同行动、共同创造，从协商到协作



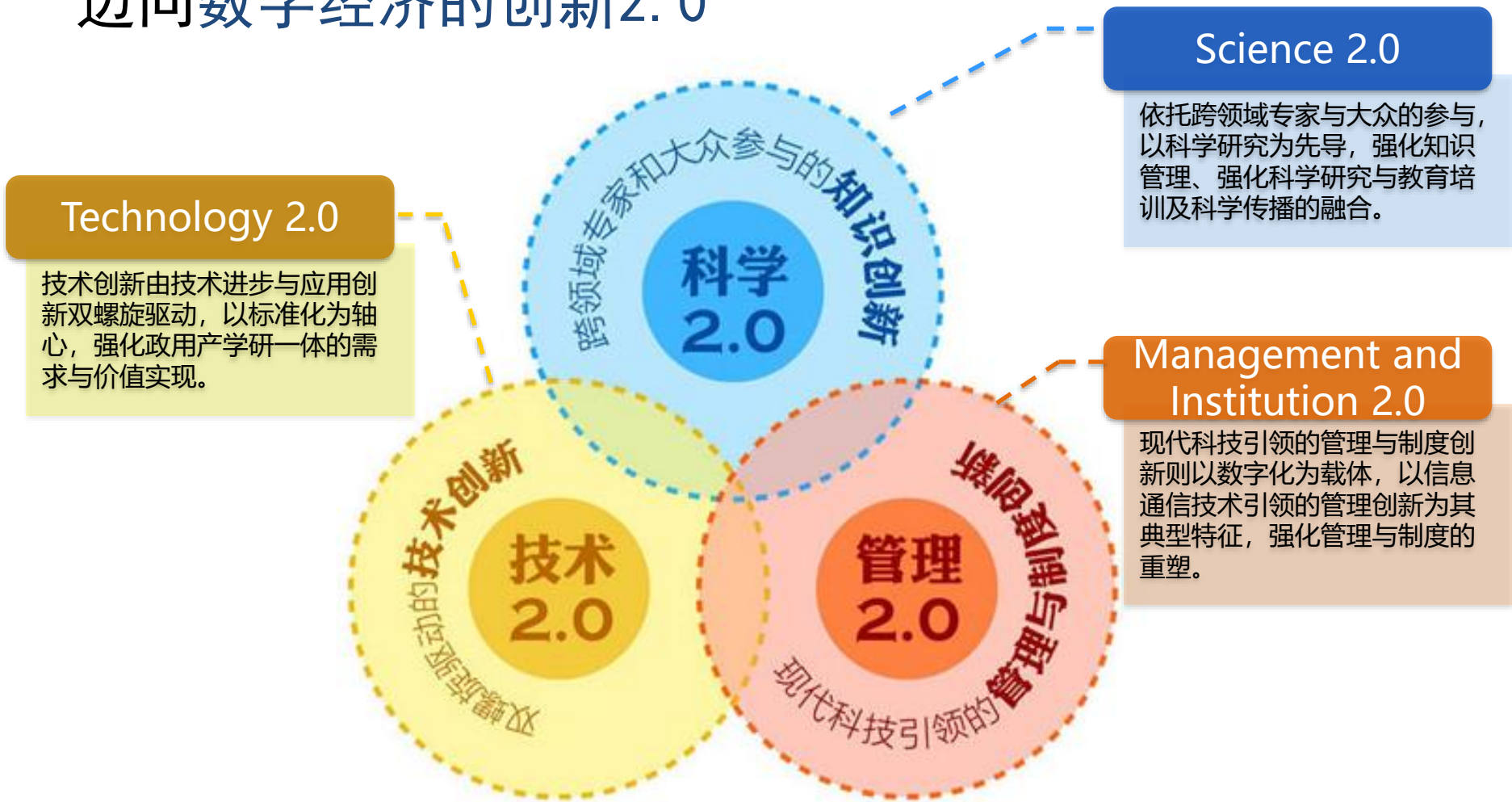
大众创新

Mass Innovation

从简单线性到开放复杂巨系统的涌现

Innovation 2.0 Towards Digital Economy

迈向数字经济的创新2.0



Science 2.0, Technology 2.0, Management and Institution 2.0 shape Innovation 2.0 of the digital economy all together. Redefine the role of user, the value of application, the connotation of collaboration and the power of the mass.

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创新2.0：重新定义数字经济时代的创新

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直播



北京

应对假日考验

10月4日
星期四

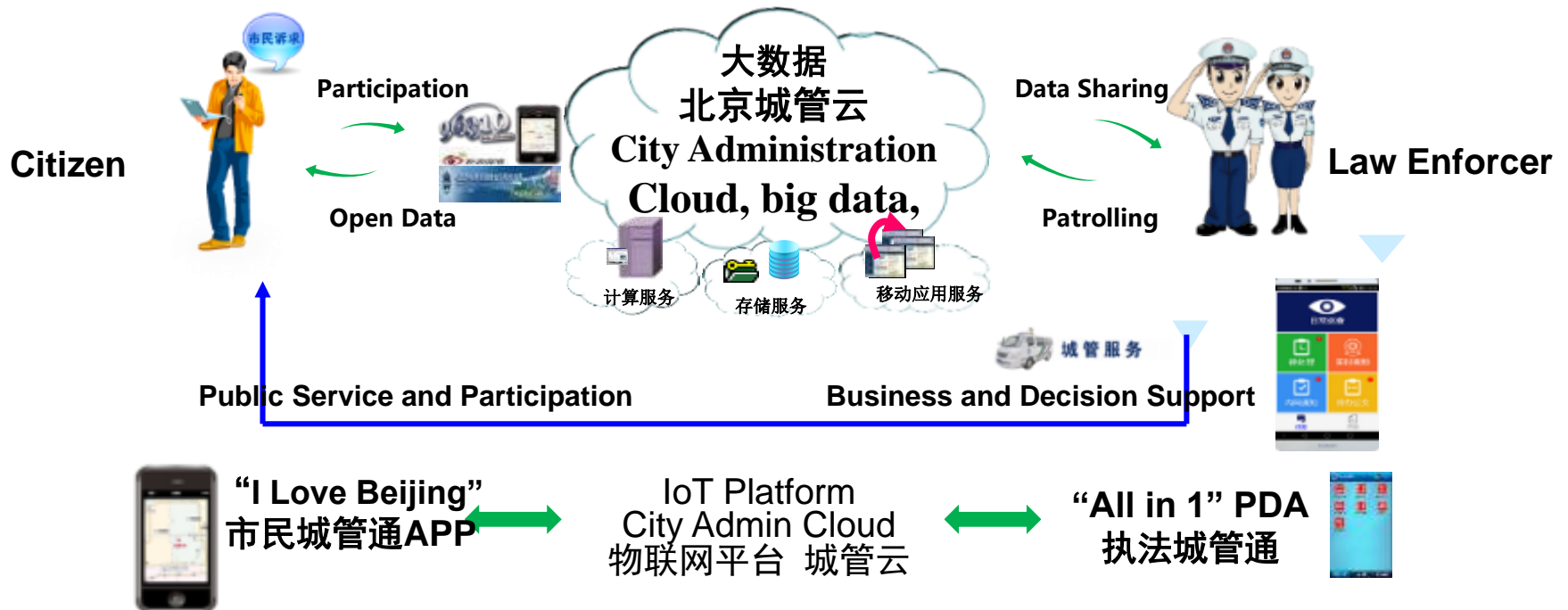
北京从数字城管迈向智慧城管

Data-Driven Command and Control in Beijing City Management and Law Enforcement
The new city management command center based on Internet of Things platform is launched in Beijing in 2012. (CCTV Live Report of the 2012 National Day city management).

Towards City as an Open Mass Innovation Space (COMIS)

城域开放众创空间：智慧城市发展新趋势

Enable the front line government employees and society in co-governance and mass innovation for a better city to live.



City as an Open Mass Innovation Space (COMIS) is the new trend of Smart City development. Smart City Management should take advantage of New Network and New Data Environment of Innovation 2.0, make the open city space we living, working, and governing as an open mass innovation space.

[SONG Gang, WANG Lianfeng \(2017\) City as an Open Mass Innovation Space: New Approach to Smart City in Era of Innovation 2.0. Office Informatization, No. 20](#)

Mobile Patrolling, Supervision, and Law Enforcement Enabled by “All in One” PDA

执法城管通“五位一体”到掌端 移动巡查、执法及综合监管



Mobile Patrolling, Supervision, and Law Enforcement Enabled by "All in One" PDA

执法城管通“五位一体”到掌端 移动巡查、执法及综合监管



“I Love Beijing” Public Service Platform and APP

“我爱北京” 城管地图公共服务平台及APP



市民
resident

举报report
咨询consult

建议propose
挑错rectify

城管政务维基 (Government Wiki)

Open Data launched Jan. 2011.
是国内最早的政府开放数据探索。

 菜市场数据.xls 文件大小: 1863B 下载次数: 182 更新时间: 2014年9月19日	 区县城管局.xls 文件大小: 288B 下载次数: 91 更新时间: 2013年11月22日
 基层执法队.xls 文件大小: 76KB 下载次数: 154 更新时间: 2014年09月19日	<p>开放数据集下载 (Dataset Download)</p>

“疏堵结合” 便民菜市、早餐点
Community Convenience Market



聚群体智慧，大众参与管理 (Public Participation, Crowd Sourcing, Collective Intelligence)

“I Love Beijing” Public Service Platform and APP

“我爱北京” 城管地图公共服务平台及APP

“I Love Beijing” APP

Android



IOS



便民菜市

举报投诉

政务维基



国家行政学院

CHINESE ACADEMY OF GOVERNANCE

第二十二期厅局级公务员进修班

Innovation Strategy and State Prosperity: Innovation 2.0

创新战略与国家繁荣：创新2.0

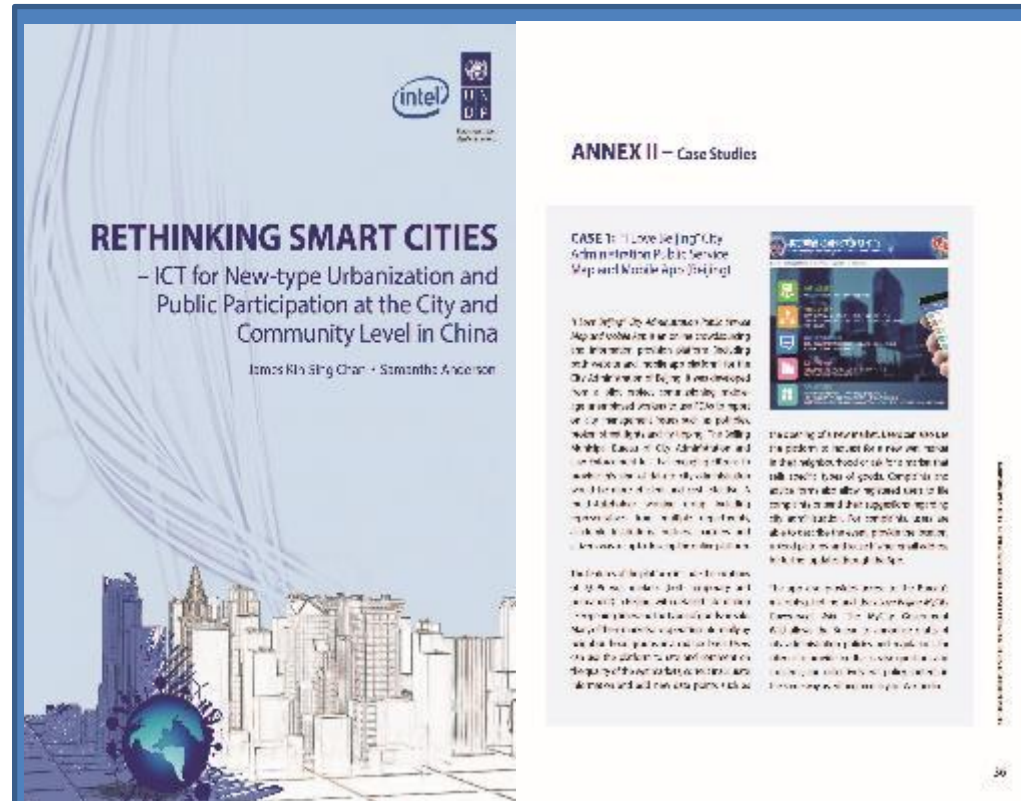


Special high-level Seminar “Innovation Strategy and State Prosperity: Innovation 2.0” is held by Chinese Academy of Governance to promote innovation on economic development and state governance.

“I Love Beijing” Public Service Platform and APP

“我爱北京” 城管地图公共服务平台及APP

“Map Service Mode Based on Innovation 2.0 for City Administration” of Beijing City Administration and Law Enforcement Authority is awarded *Technology Leadership* by *FutureGov Award* in 2011. It is the **first among the Ten Case Studies** in the report “Rethinking Smart Cities” released by **United Nations Development Program** in 2015.



Rethinking Smart Cities - ICT for New-type Urbanization and Public Participation at the City and Community Level in China”

“Especially meaningful in the grand context of e-government in the age of innovation 2.0. The forward-looking nature of these projects inspires and drives e-government practitioners across China and Asia Pacific in general.”

- Former GovCIO of New Zealand, Laurence Millar

Towards City as an Open Mass Innovation Space (COMIS)

城域开放众创空间：智慧城市发展新趋势

Government 2.0, as the innovation 2.0 transformation of the government, is key to foster the collaborative innovation of the government, business and society. The Gov 2.0 practice of open data, wiki government can enable city as an open mass innovation space for better economy, society and governance.

MoBike sharing, Navigation app powered by open data...





INNOVATION
2.0

城域开放众创空间(COMIS)推动数字经济与智慧社会

City as an Open Mass Innovation Space towards Digital Economy and Smart Society

The Interaction of new generation of ICT and Innovation 2.0 enables "Internet+" , foster the new network and new data environment of Innovation 2.0, makes the citizen living space and urban governance space an open mass innovation space of user innovation, open innovation, co-innovation and mass innovation ecosystem, where the digital economy and smart society flourish, and powers mass Entrepreneurship and innovation.

Thanks for your attention😊

Innovation 2.0



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