# e-Social Science and implications for communication research and education

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# Outline

- From e-Science to e-Social Science
- Chinese e-Social Science (CeSS) program
- e-Social Science and communication research and education



# The landscape

#### e-Research

#### e-Science

#### e-Social Science

#### e-Humanities



# How to spell the "e"?

e-Science	e-Social Science	e-Email	e-Commerce
E-Science	E-Social Science	E-Mail	E-Commerce
E-science	E-social science	E-mail	E-commerce
Escience	Esocial science	Email	Ecommerce
eScience	eSocial Science	eEmail	eCommerce
escience	esocial science	emmail	ecommerce



# Who is behind the "e"?

UK OST:

National Centre for Social Science (NCeSS, <u>www.ncess.ac.uk</u>) U.S. NSF:

 Cyberinfrastructure Council (OCI, <u>www.nsf.gov/dir/index</u> .jsp?org=oci)



# What is the "e"?

New research methods:

- Large-scale datasets
- Collaborative tools
- Multidisciplinary approaches
- New research infrastructure and tools:
  - The Grid technology

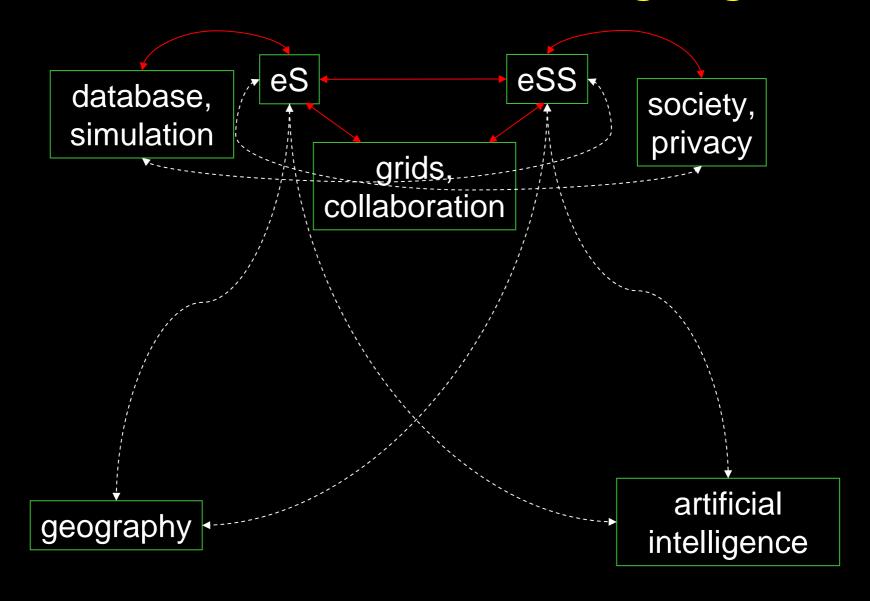


# Wikipedia definitions

- e-Science: "computationally intensive science that is carried out in highly distributed network environments or uses immense datasets requiring grid computing."
- e-Social Science: "using grid computing. A subset of e-Science."



### Associated words of eSS in google





# Why is the "e"?

- Modeling and simulation involving intensive computing resources
- Grid-enabling datasets:
  - provide uniformity to existing database structure and data formats
  - provide tools for integrating, processing, and visualizing untapped data sources
- Collaborative tool for communication among researchers across disciplines and locations



# Agenda of 2<sup>nd</sup> Int'l Conference on e-Social Science (2006)

http://www.ncess.ac.uk/events/conference/

- 1. Case studies of e-Social Science research methods & applications
- 2. Enabling new sources and forms of sociological data through e-Social Science
- 3. Infrastructure and tools for e-Social Science
- 4. Middleware for data collection, sharing and integration
- 5. Standards for metadata, ontologies, annotation, curation, etc.
- 6. Usability issues in the design of research tools and middleware
- 7. Case studies of e-Research & e-Social Science research practices
- 8. The benefits and challenges of large scale collaborative research
- 9. Interdisciplinary research and e-Social Science
- 10. International collaborations in e-Social Science
- 11. Socio-technical issues in development of e-Research & the Grid
- 12. Ethical issues and challenges in the collection, integration, sharing and analysis of sociological and other personal data



### Chinese e-Social Science (CeSS, <u>cess.grids.cn</u>)

Chinese e-Social Science CeSS - Maxthon Browser		
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Let social science ride on IT bullet-train 让社会科学插上信息技术的翅膀

Our Views Our Version and Vision of e-Social Science Events Showcases e-Social Science is to use networked information technologies to collect, process, and present social About CeSS Contact Us

#### As of March 8, 2006

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Chinese e-Social Science

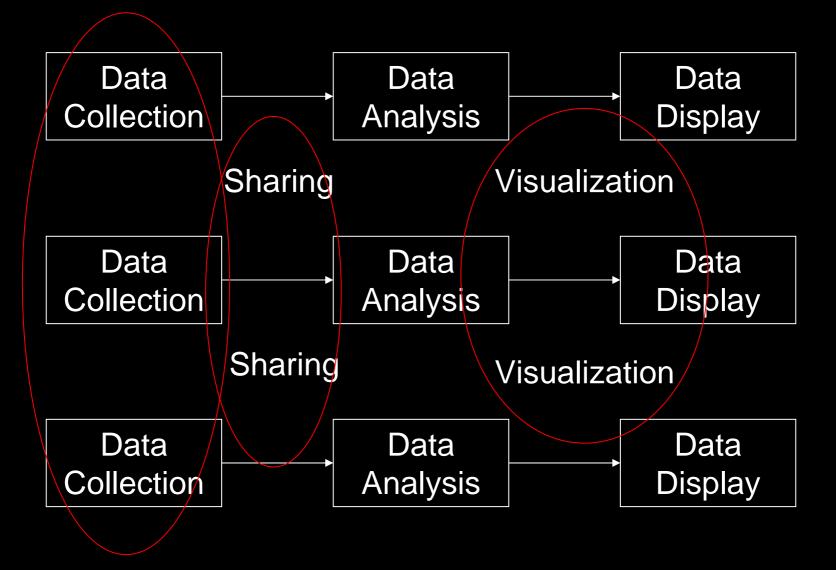


# **Our perspective**

- e-Science started as solutions (tools) to existing problems (applications)
- e-Social Science appeared to have been a tool (Grid) looking for applications
- In social sciences, the primary bottleneck lies in data collection, followed by data sharing and visualization; data processing and analysis are generally not a serious problem



### Where are the bottlenecks?





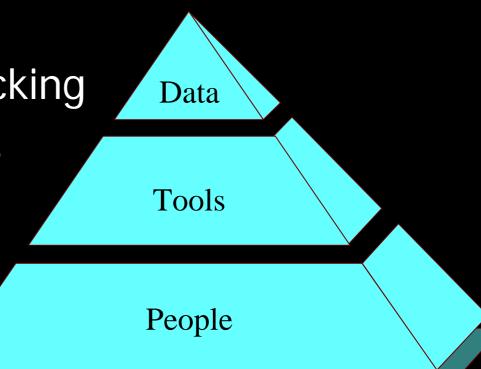
# Content analysis as an example

Data Analysis	Data Collection		
	Offline	Online	
Offline	Content analysis + SPSS	Web content analysis + SPSS	
Online	Content analysis + Grid computing	Web content analysis + Grid computing	



### eSS & communication research

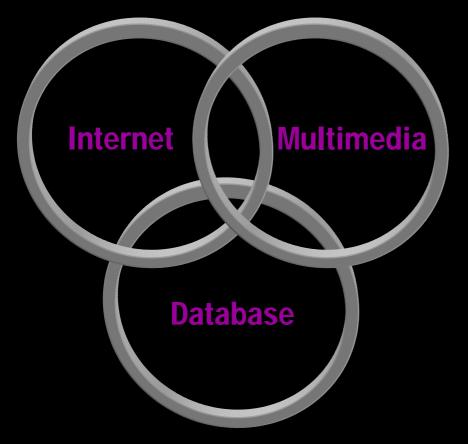
- Online content analysis
- Online survey
- Online experiment
- Online behavior tracking
- Online focus groups
- Online simulation





### eSS & communication education

# <u>newmedia.cityu.edu.hk</u>'s original architecture:



New elements to add:

- Internet: web 2.0 technology
- Multimedia:
  streaming and
  mobile data
- Database:
  information
  retrieval, data
  visualization

# visit us, advise us, and join us at cess.grids.cn

