



# The Next Steps to the Future of the Internet

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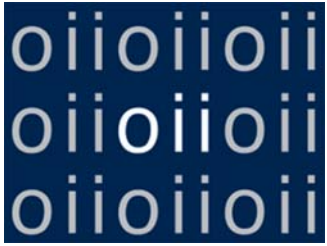
Presentation to 'The Future of the Internet: Perspectives Emerging From R&D in Europe', organized by the Slovenian Presidency with support of the European Commission - DG Information Society and Media, Bled, Slovenia, 31 March 2008.



# Technically-Inspired Visions of the Future

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- Interactive Computing -- the 'public information utility' of the 1970s
- Two-way Cable Videotext -- telematics of the 1980s
- E-Mail, Bulletin Boards and Conferencing -- of early-1990s
- The Internet and Web -- e-Democracy, e-Government from the 1990s
- Web 2.0 Social Networking -- Daily Me, 'Social Machine'
- Networking and Grid Computing -- the 21<sup>st</sup> Century Internet as a World Wide Computer -- a Utility



# Oxford Internet Surveys (OxIS)

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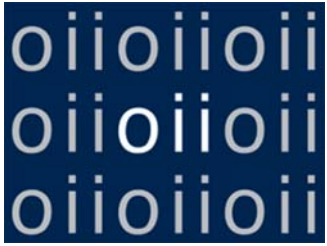
- 2003, 2005 and 2007 (next in 2009)
- Cross-sectional Surveys versus Panels
- Multi-Stage Probability Sample
- England, Scotland & Wales
- Respondents: 14 years and older
- Face-to-face Interviews
- Sponsorship from Hefce, AOL, BT, British Library, Cisco, Ofcom, Wanadoo (Orange), Talisma



	2003	2005	2007
Fielded in	June-July	February-March	March - April
Number of respondents	2,030	2,185	2,350
Response rate	66%	72%	77%



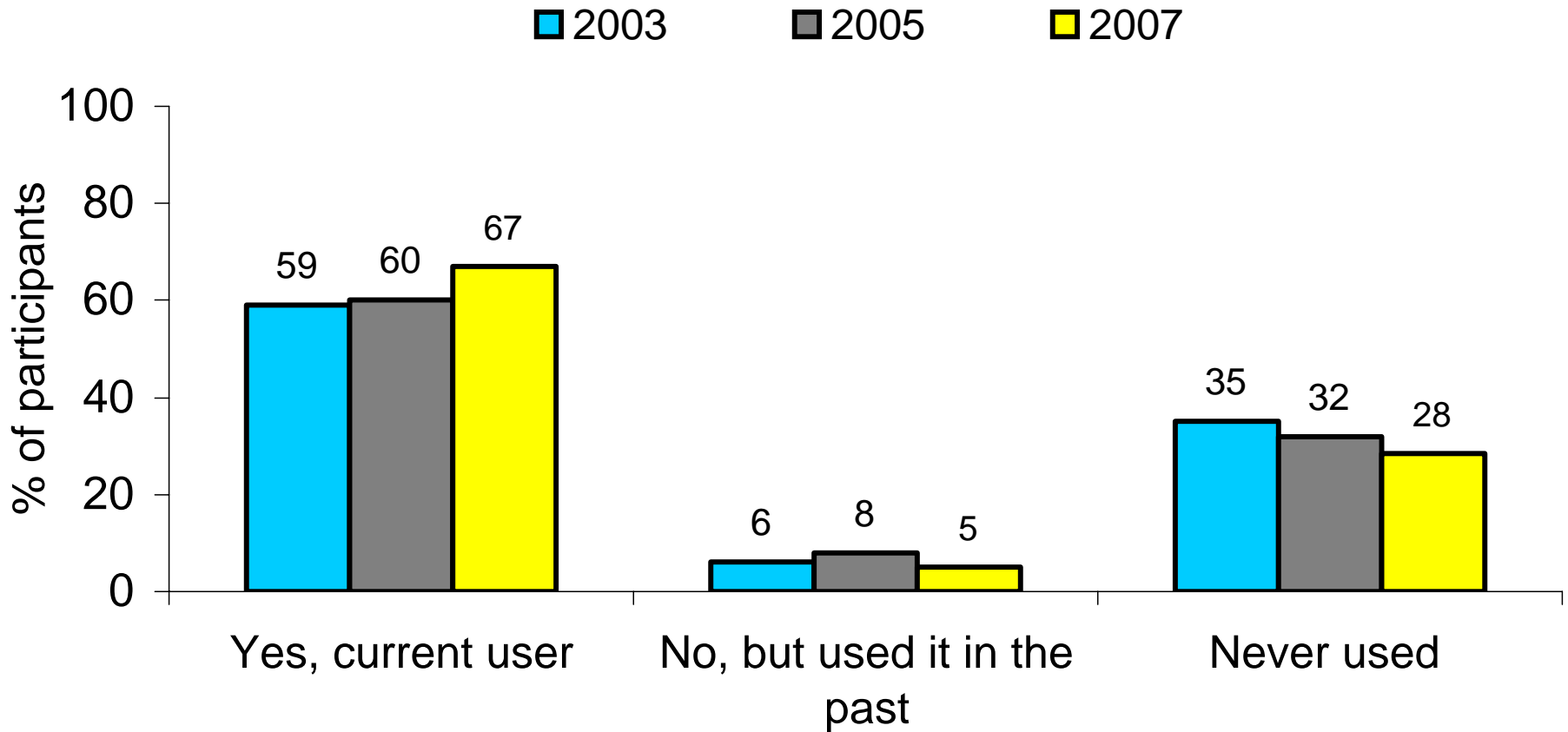
- The World Internet Project (WIP)
  - Initiated 2000, UCLA, now at USC
  - Data for 22 nations (and expanding)
  - [www.worldinternetproject.net](http://www.worldinternetproject.net)
- Britain: Oxford Internet Surveys (OxIS)

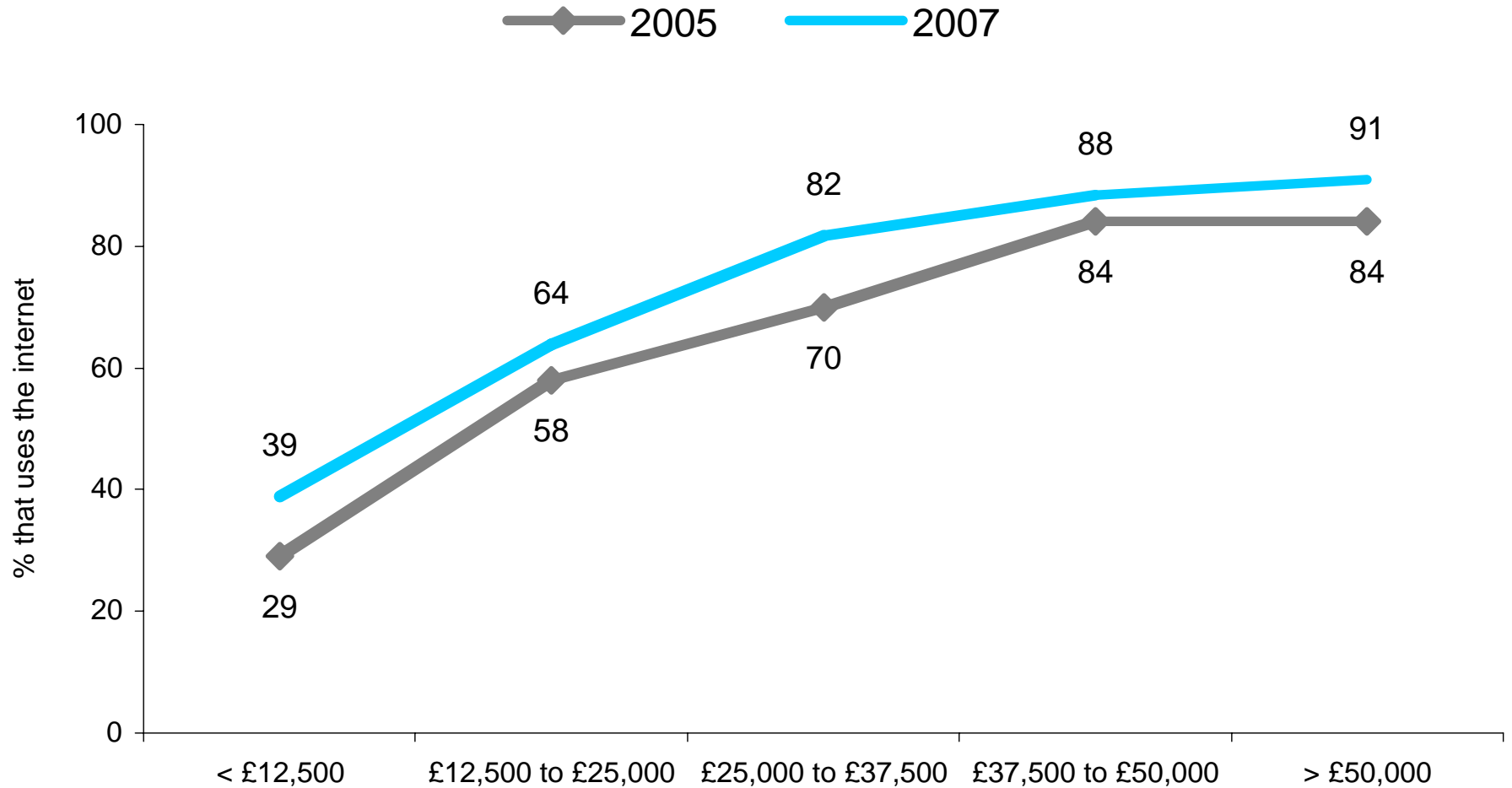


# Empirical Foundations for Moving Ahead

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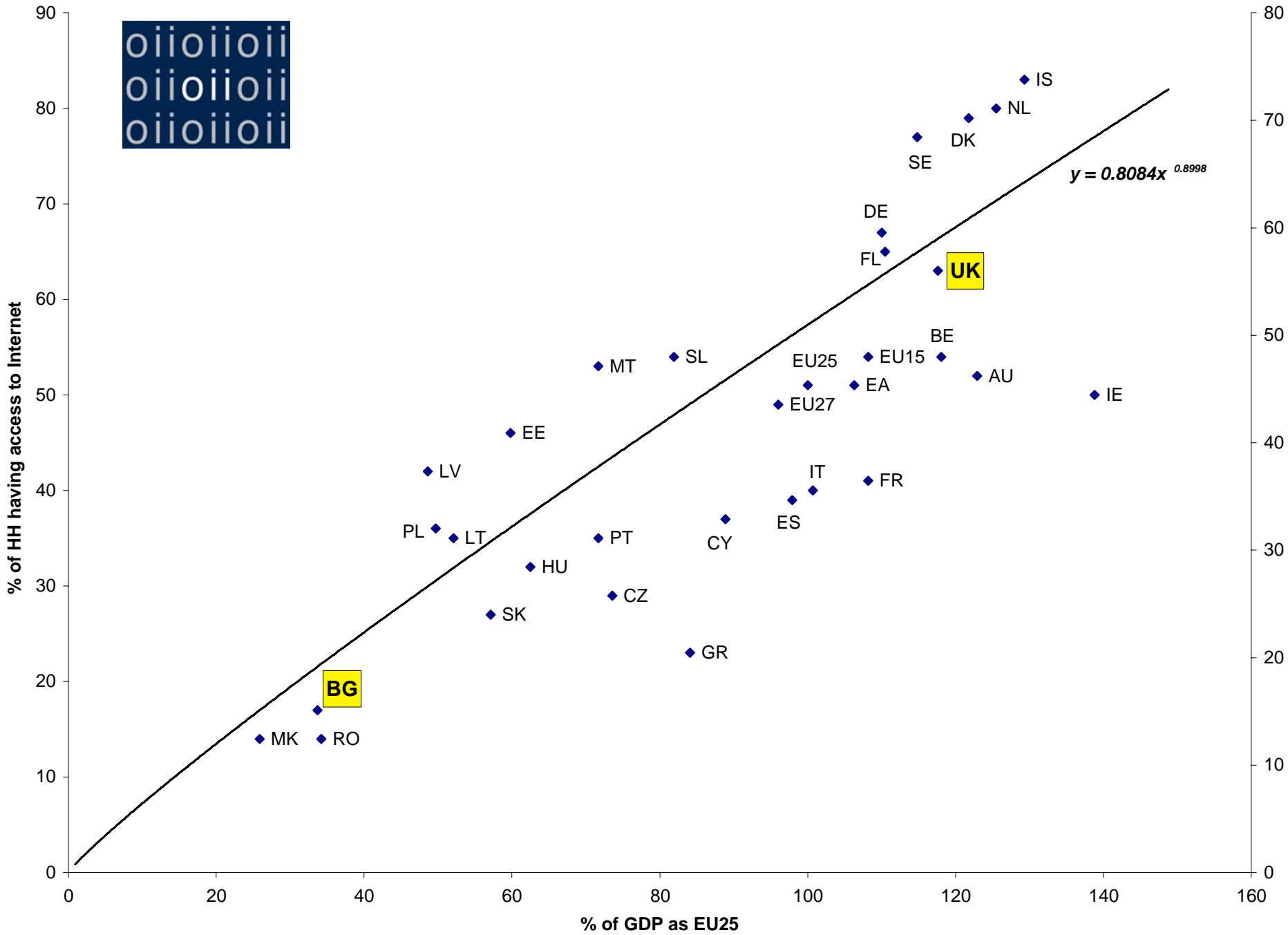
- Centrality of the Internet -- World Wide Computer





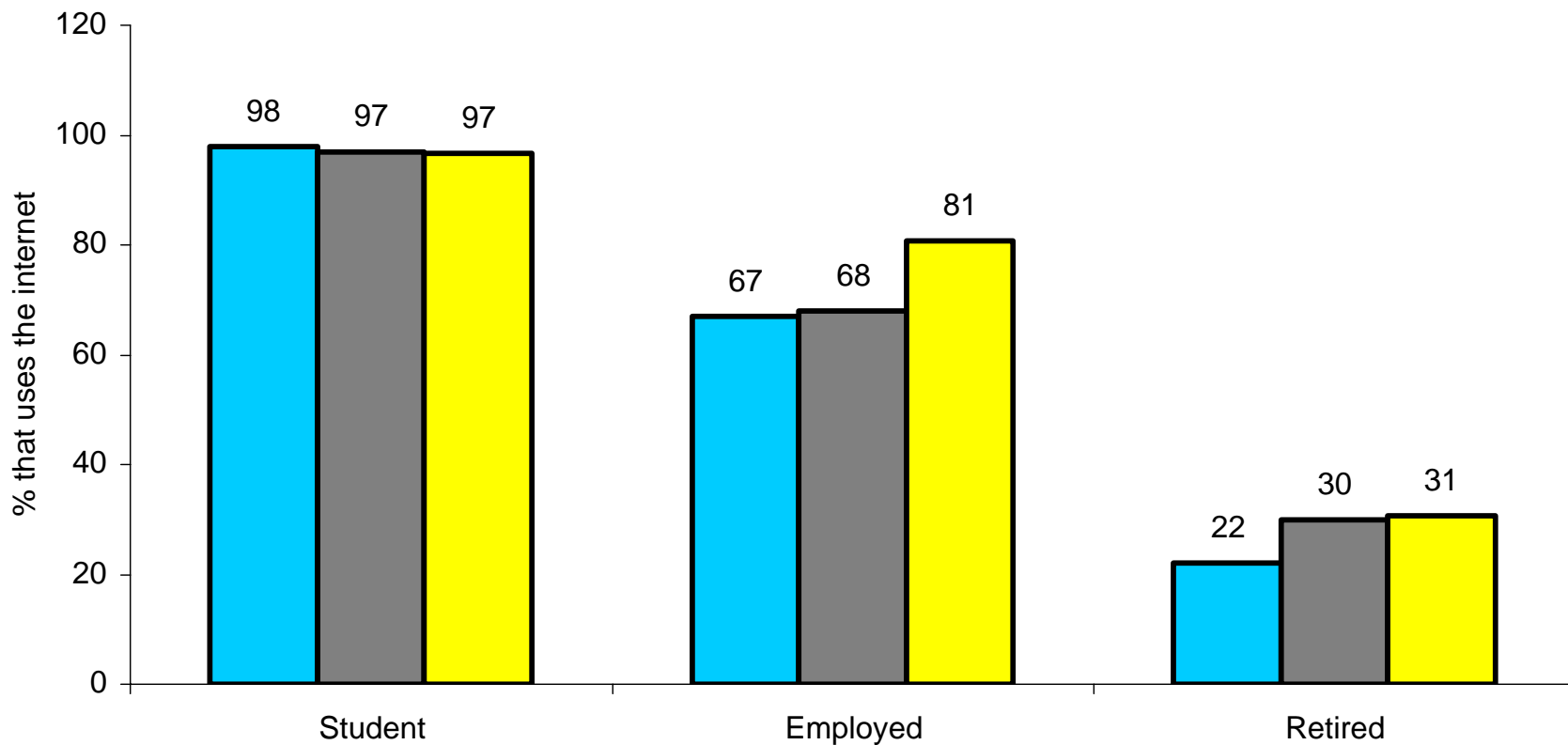
OxIS 2005: N=2,185; OxIS 2007: N=2,350

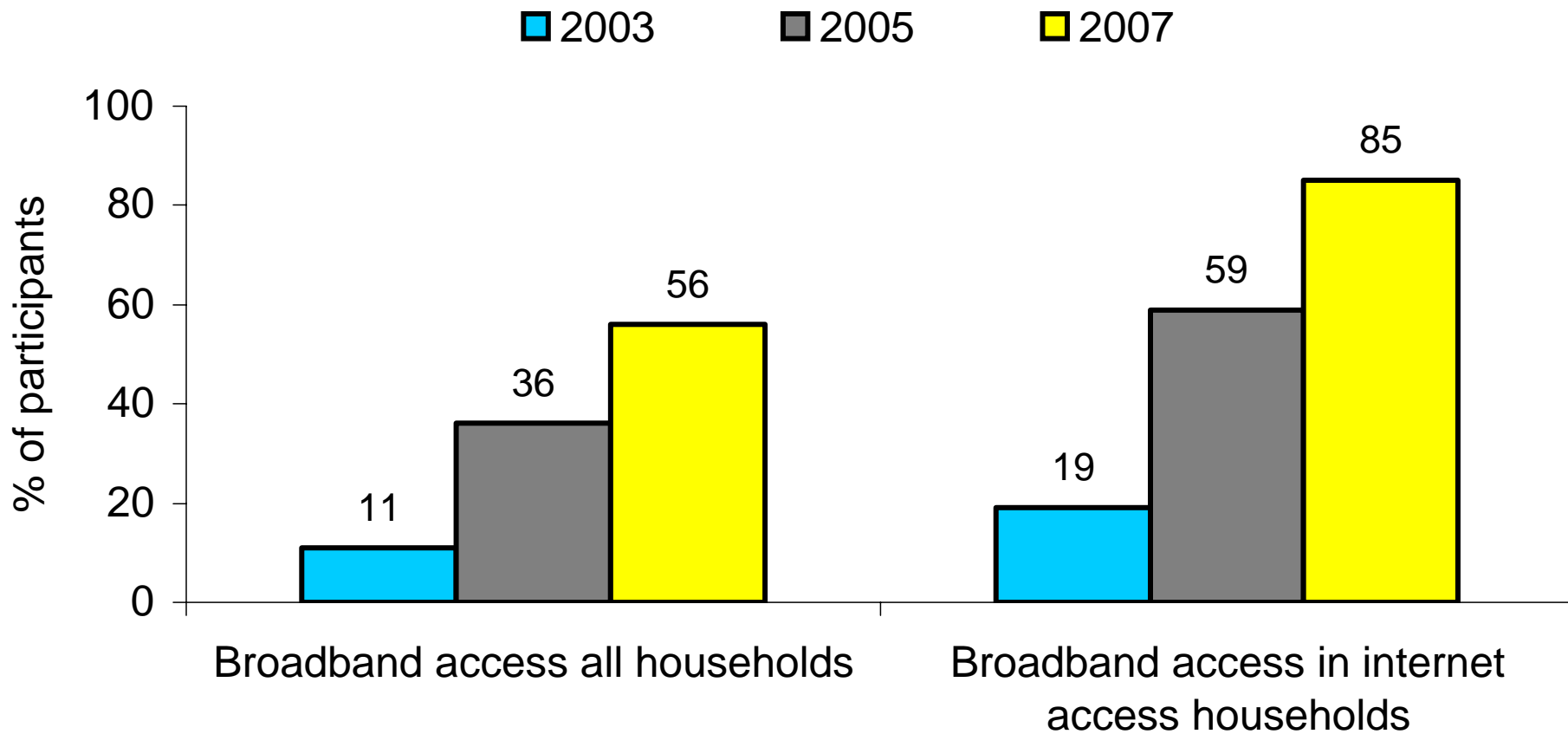


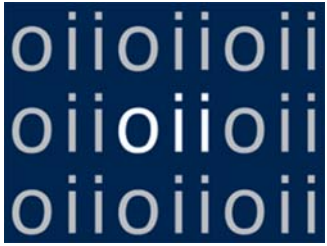


# Life Stage and Internet Use

■ 2003    ■ 2005    ■ 2007





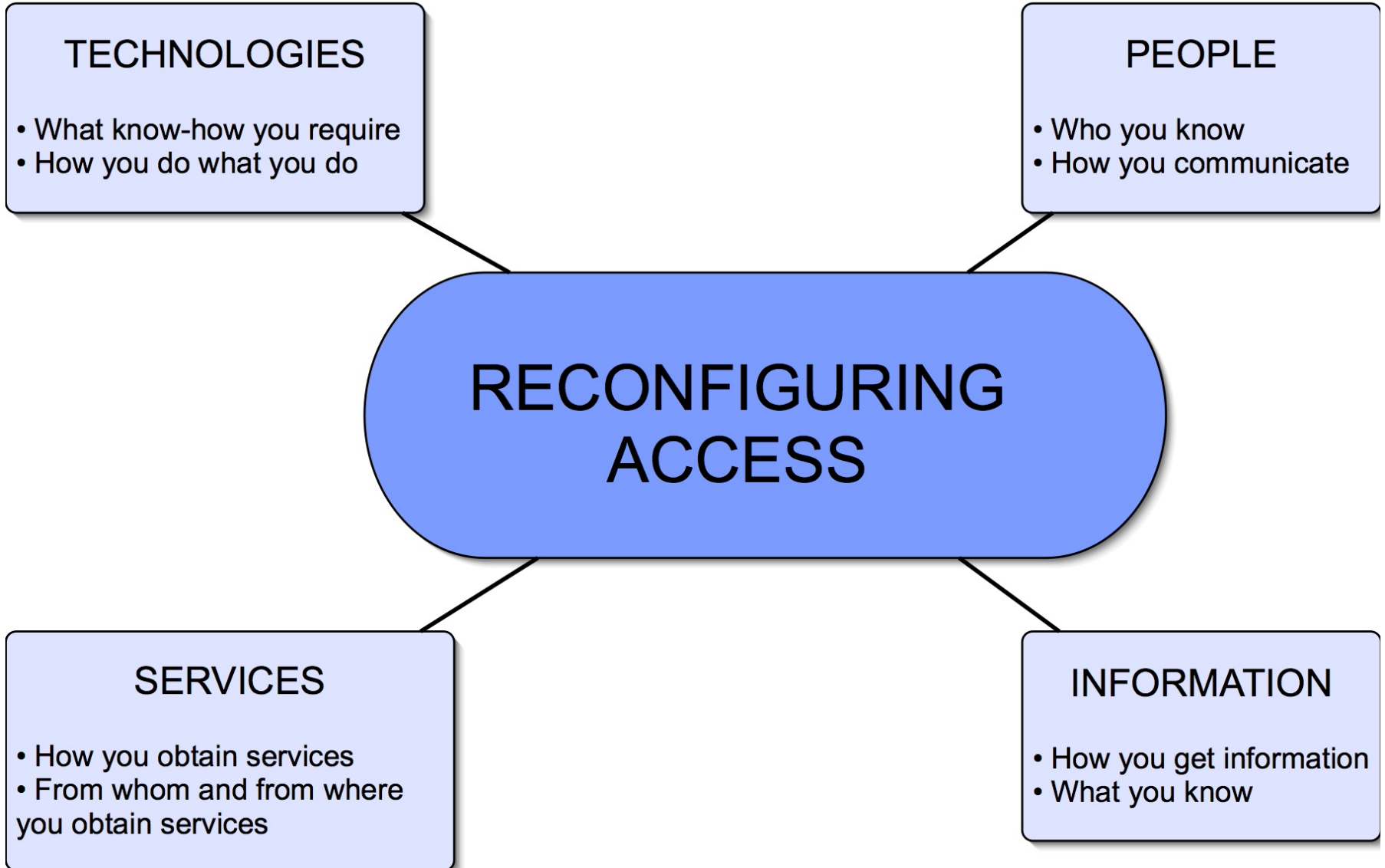


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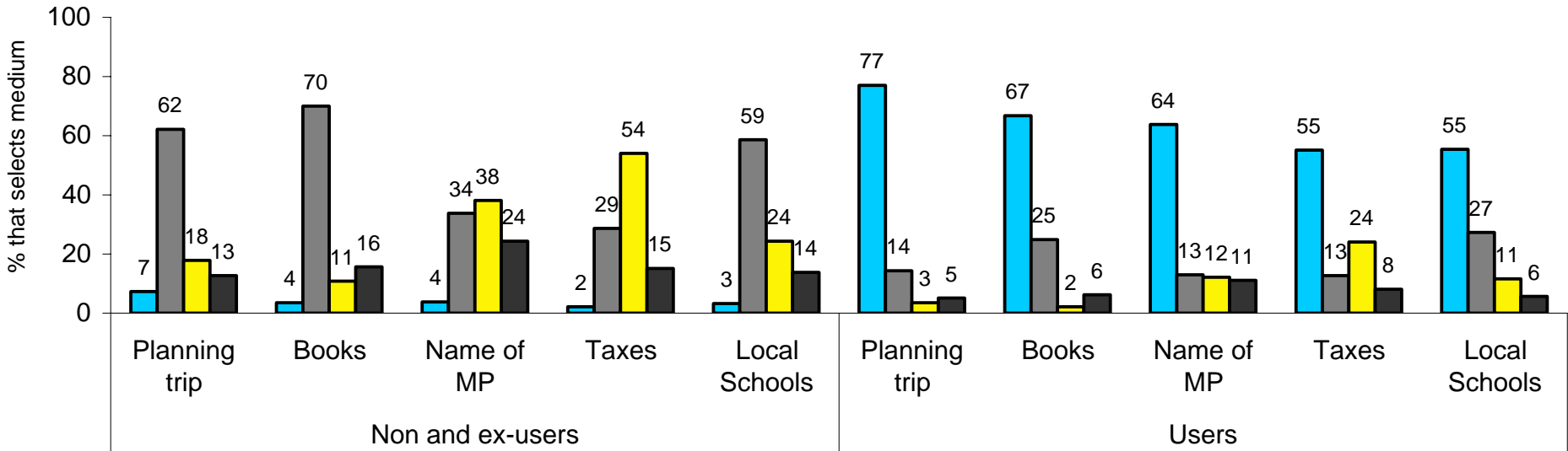
- Centrality of the Internet -- World Wide Computer
- Transformative Impact: Reconfiguring Access

# Figure 1-3: Reconfiguring Access



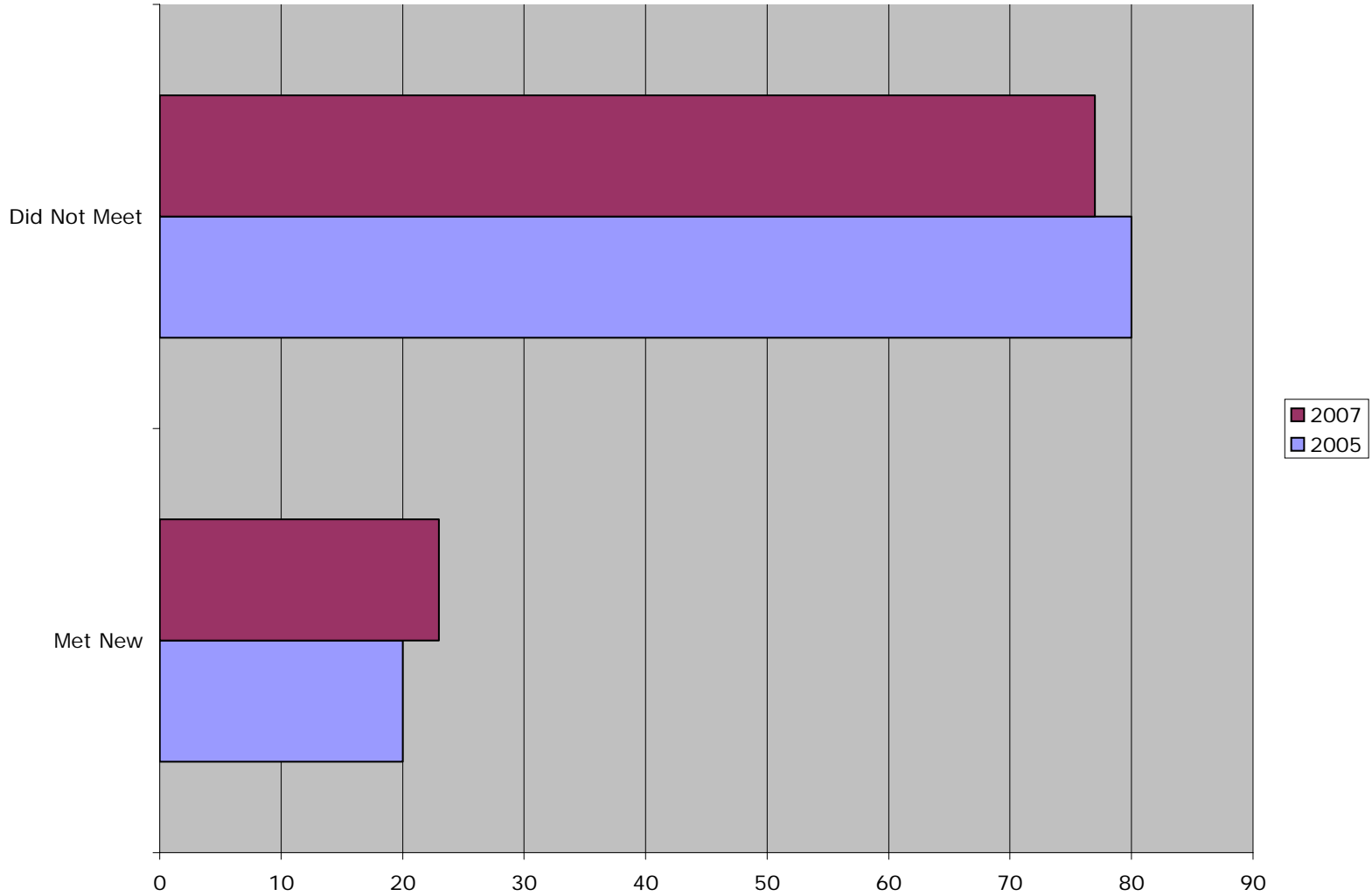


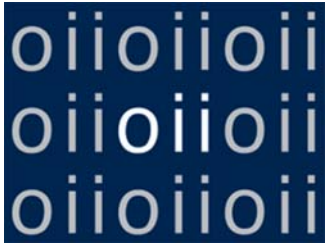
■ Use the Internet    
 ■ Personal visit    
 ■ Use the telephone    
 ■ Book or directory





### Meeting New People Online



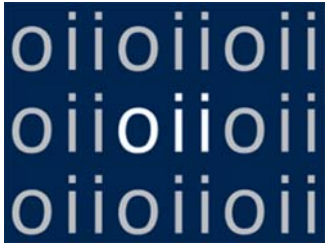


## Empirical Foundations for Moving Ahead

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- Centrality of the Internet -- World Wide Computer
- Transformative Impact: Reconfiguring Access
- Strategic for Enhancing Existing Institutions





## Empirical Foundations for Moving Ahead

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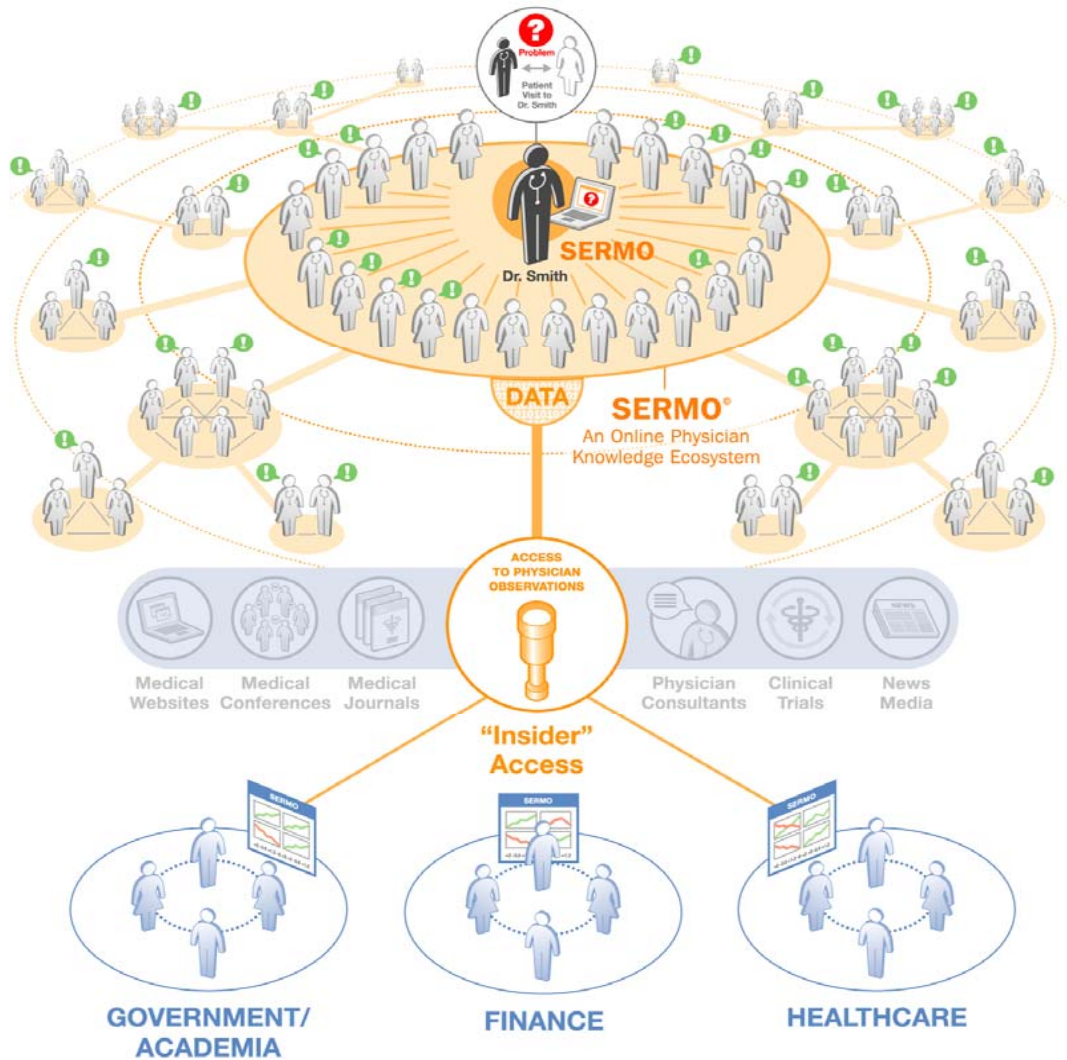
- Centrality of the Internet -- World Wide Computer
- Transformative Impact: Reconfiguring Access
- Strategic for Enhancing Existing Institutions
- Fostering 'Collaborative Network Organizations'



# Collaborative Network Organizations

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- Wisdom of Crowds?
- Networked Individuals
- Managing Networked Individuals
- Three Types of Networks supporting CNOs:
  - 1.0 Sharing (Web, Semantic Web, Deep Linking)
  - 2.0 Contributing (User-generated content)
  - 3.0 Co-creating (Collaborative Production)





# A Simple Typology of CNOs

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- 1.0. Sharing: The ability to create hypertext documents and objects that can be linked for sharing within a specialized distributed network or across the world. (Tim Berners-Lee inventing the Web to share documents at CERN, and moving on to invent a semantic Web.)
- 2.0. Contributing: Social networking applications of the Web that facilitate group communication, and user-generated content, from text to tagging, such as Sermo.
- 3.0. Collaborating: Online systems that facilitate cooperative work toward shared goals, illustrated by the joint writing and editing of Wikipedia.



## Empirical Foundations for Moving Ahead

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- Centrality of the Internet -- World Wide Computer
- Transformative Impact: Reconfiguring Access
- Strategic for Enhancing Existing Institutions
- Fostering 'Collaborative Network Organizations'
- Enabling the Emergence of a 'Fifth Estate'

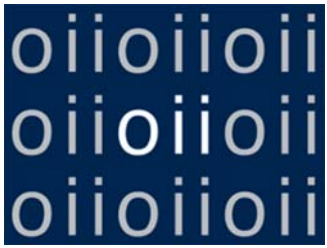


# The Fifth Estate

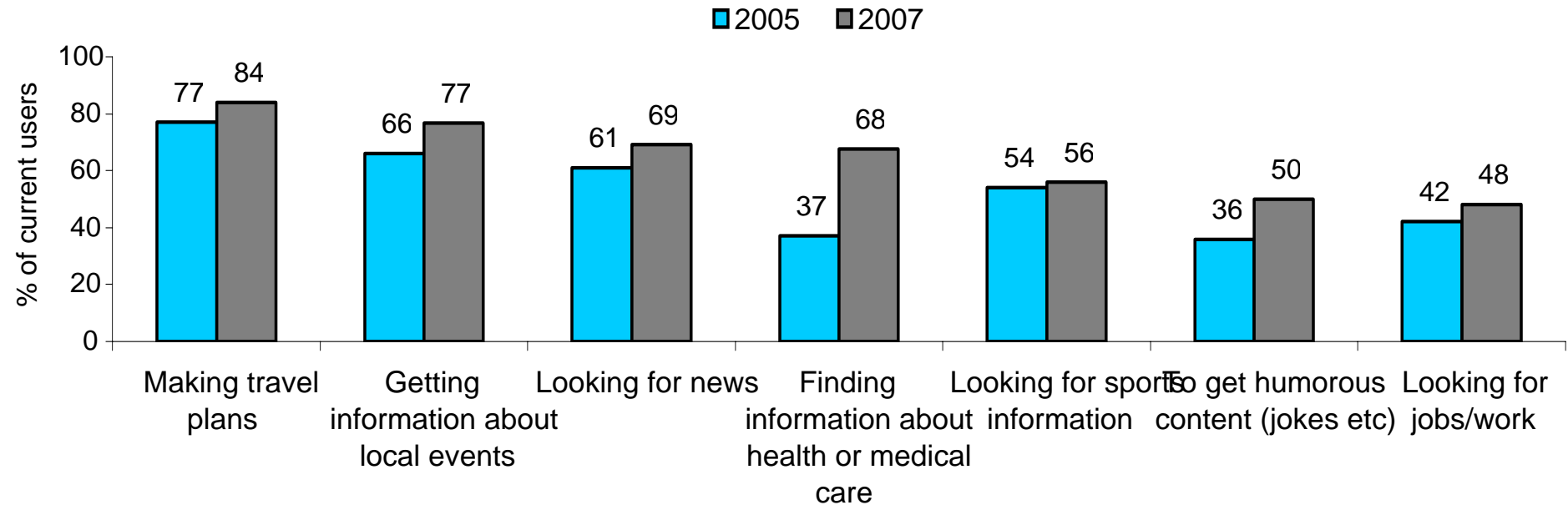
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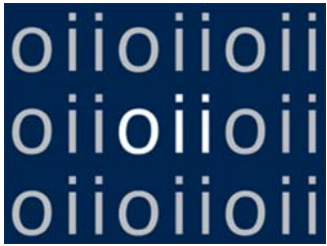
- Press in the 18th Century -- the Fourth Estate
- Internet in the 21st -- enabling a Fifth Estate

Enabling people to network with other individuals and with information, services and technical resources in ways that support social accountability in business and industry, government, politics, and other sectors.



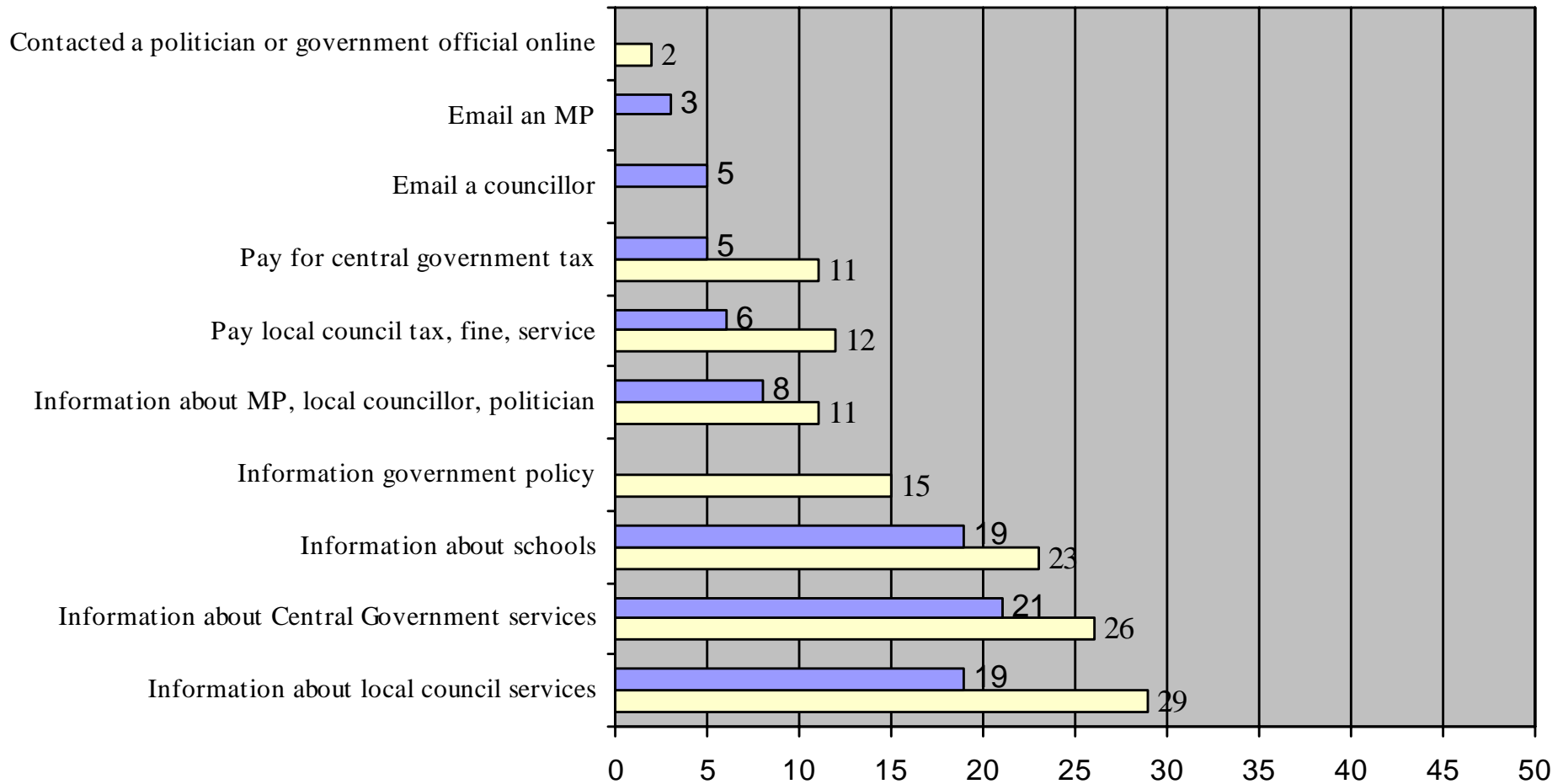
# Going to the Web for Information



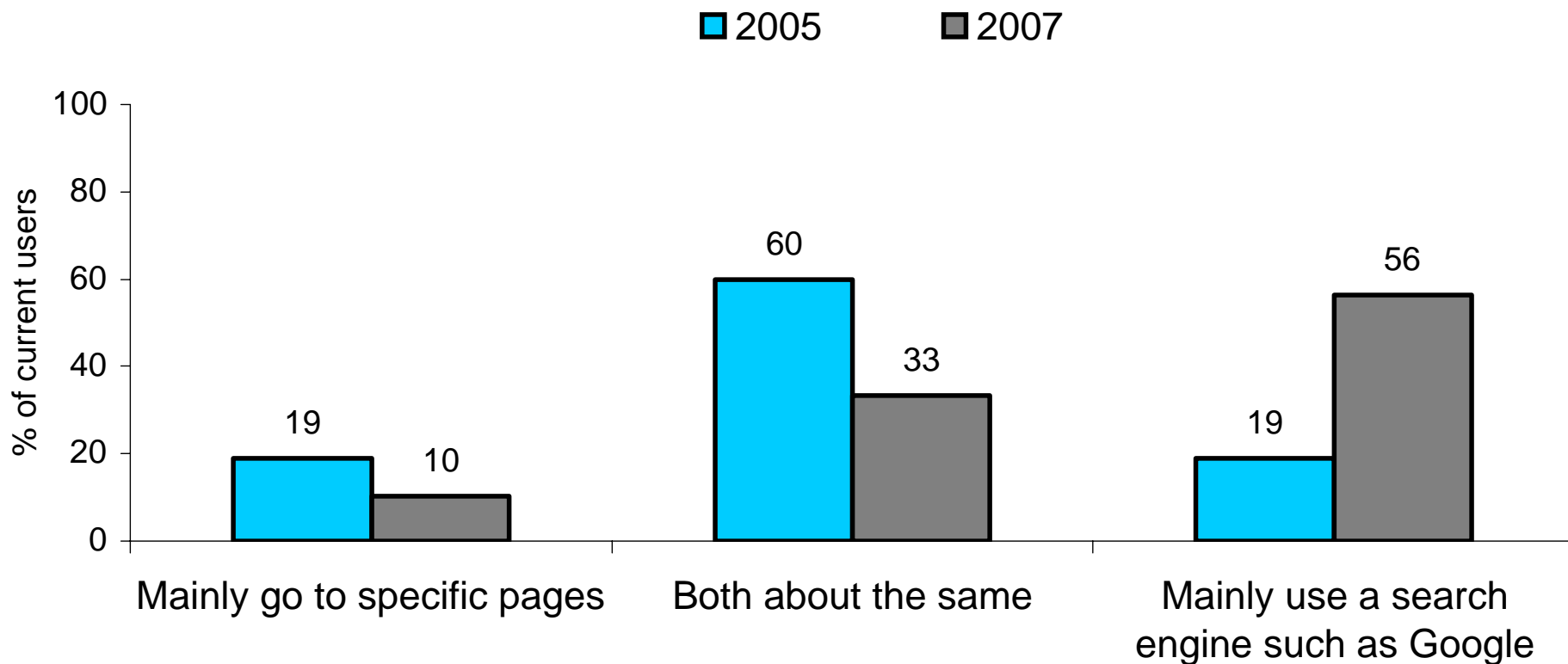


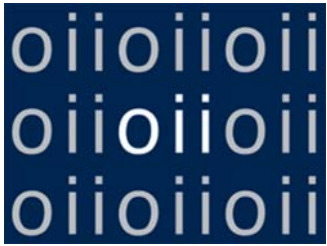
# Growing Use for Politics and Government: Britain

2007 2005





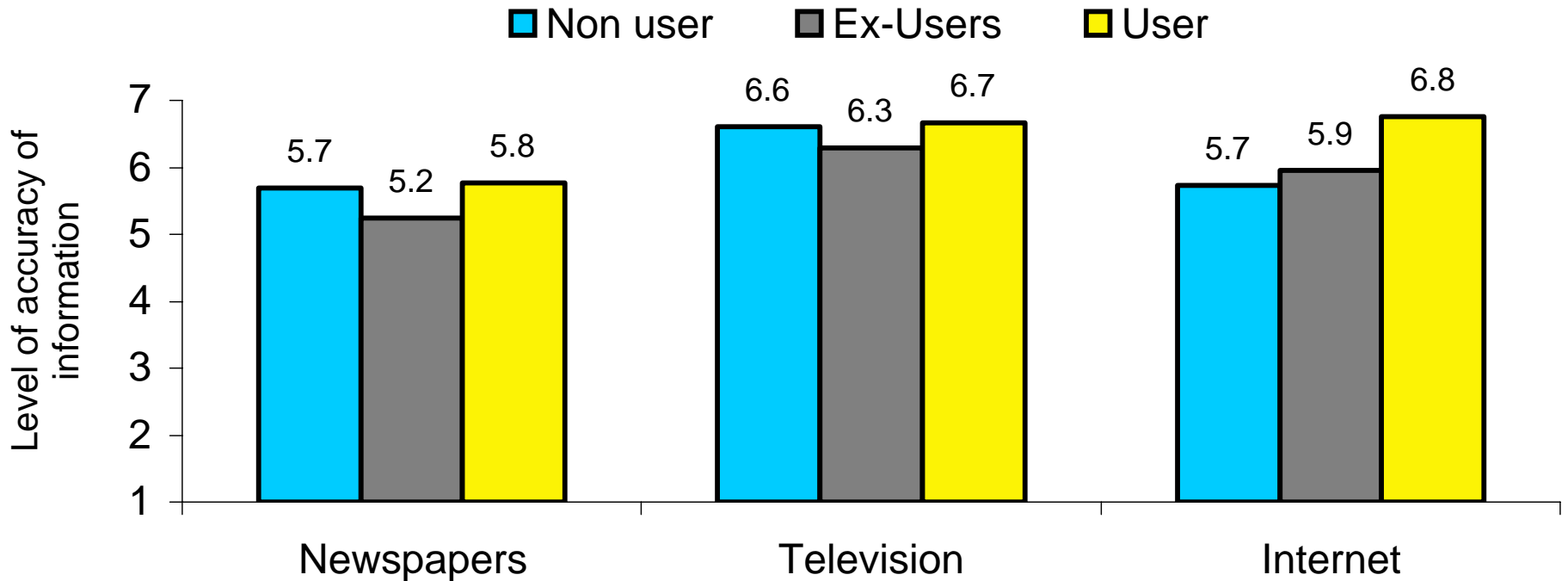


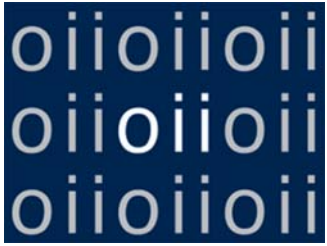


# Trust in Media, UK, 2007

## (Reliability of Information)

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# Networked Institutions v Networked Individuals of the Fifth Estate

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- Networked Institutions, such as in e-Health
- Networked Individuals of the Fifth Estate:
  - going to the Internet for health and medical information
  - networking physicians via Sermo



# Arenas Shaped by 5<sup>th</sup> Estate

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- Governance and Democracy
- Press and Media
- Business and Commerce
- Work and the Organization
- Education
- Research



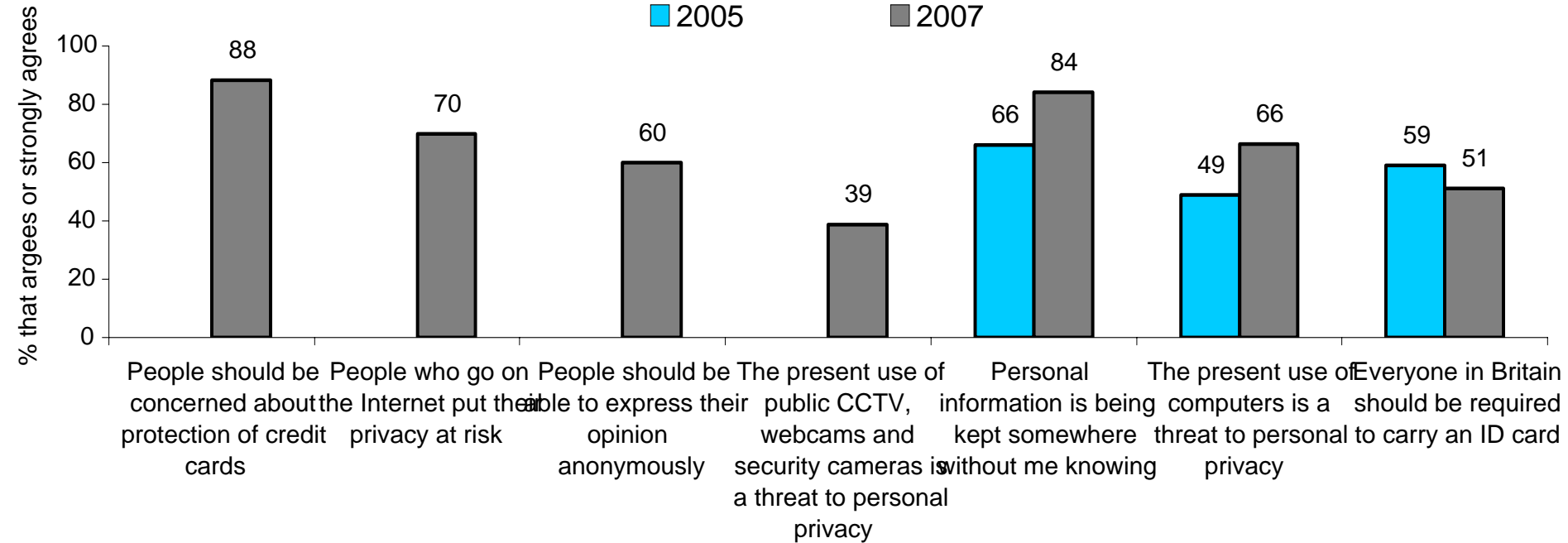
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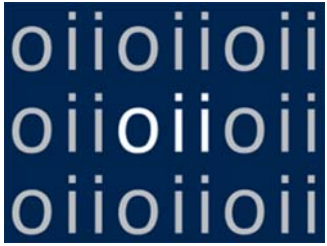
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- Centrality of the Internet -- World Wide Computer
- Transformative Impact: Reconfiguring Access
- Strategic for Enhancing Existing Institutions
- Fostering 'Collaborative Network Organizations'
- Enabling the Emergence of a 'Fifth Estate'
- Risks to Privacy and Trust: Certainty Trough



# Increasing Concerns over Privacy





## Next Steps: Hope over Fears

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- Centrality: Prioritize Internet R&D and Divides
- Reconfiguring Access: Strategic Choices
- Reinforcing Institutions: Innovation
- CNOs: Managing Networked Individuals
- 5th Estate: Foster and Protect
- Certainty Trough: Securing Trust and Privacy



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