

Internet of Services and Internet of Things Middle vs. Edge?

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- **Research**
- **Publications**
- **Policy analysis**
- **Focus: Interoperability, Service Utility, Enterprise Systems, Business Models, Governance, Investments**

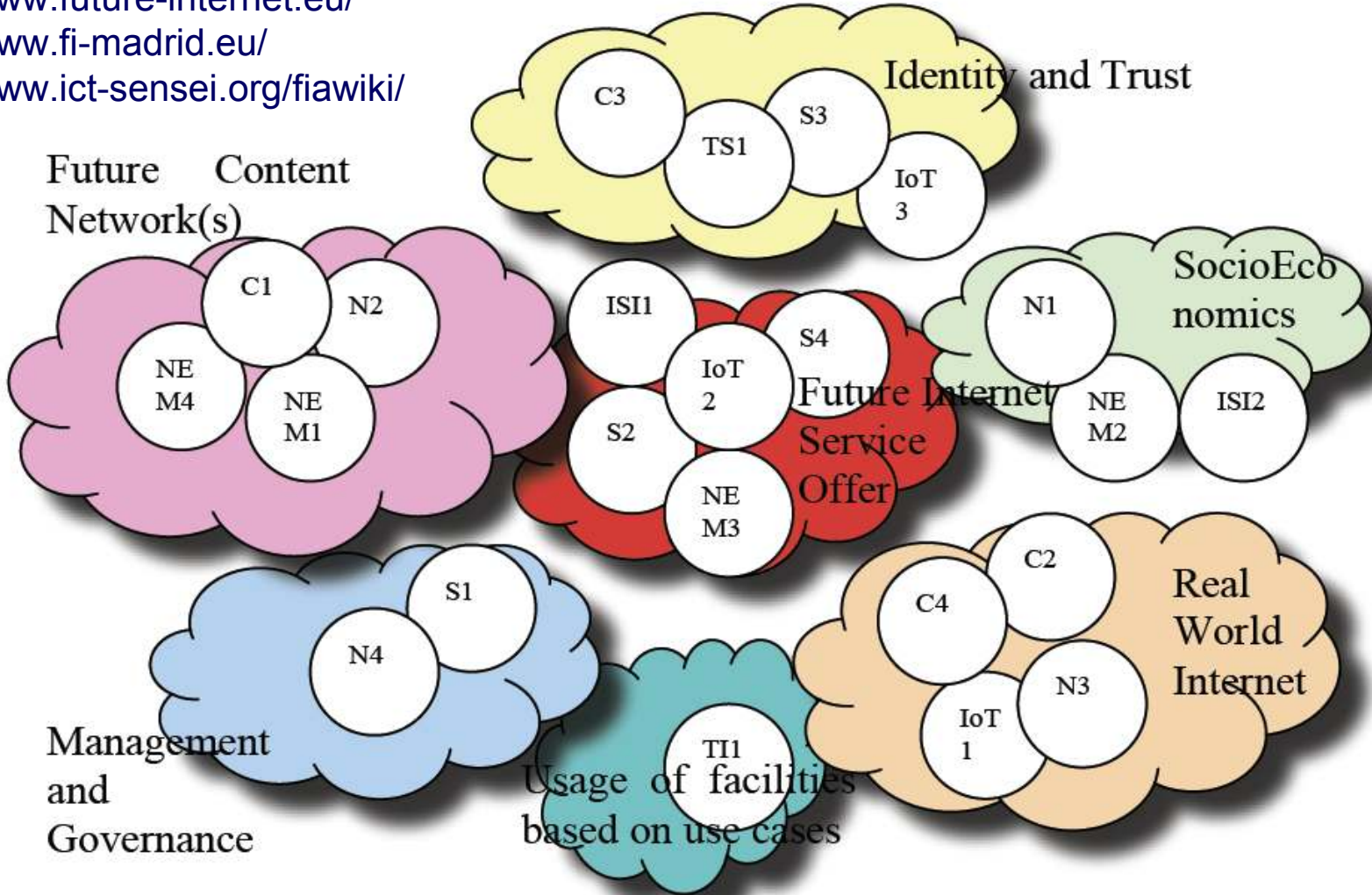
- Man-Sze Li is Director of IC Focus Ltd, a London based ICT research company. Previous positions include Chief Technical Officer of CommerceWorks, Managing Director eCommerce of Portfin Group, Senior Consultant of Level-7 and of Ovum, Assistant Director EDI Standards at the UK government agency SITPRO, and Group Head of CIT Research. In addition, she has been involved in the establishment of 9 Internet start-up companies and was the founding chair of several European standardisation groups in the application area. Her research interest focuses on Future Internet, Interoperability, Service Utility, and related business models and governance aspects. She is Co-Chair of the European Commission DG INFSO Enterprise Interoperability Cluster, chief editor and co-author of several reports published by the European Commission in recent years, and authors of several books and about 100 published papers. She is a member of the NESSI Standardisation Committee, the Post-Bled Software & Services Working Group and Socio Economic Working Group, ACM SIGCOMM, as well as author of several public White Papers related to the Internet of Services. She was a member of the Technical Community of the OECD Ministerial Conference on the Future of the Internet Economy and the European Keynote Speaker at the International Conference on Future Internet Technologies; both held in June 2008 in Seoul.





Setting the Scene: Future Internet Assembly

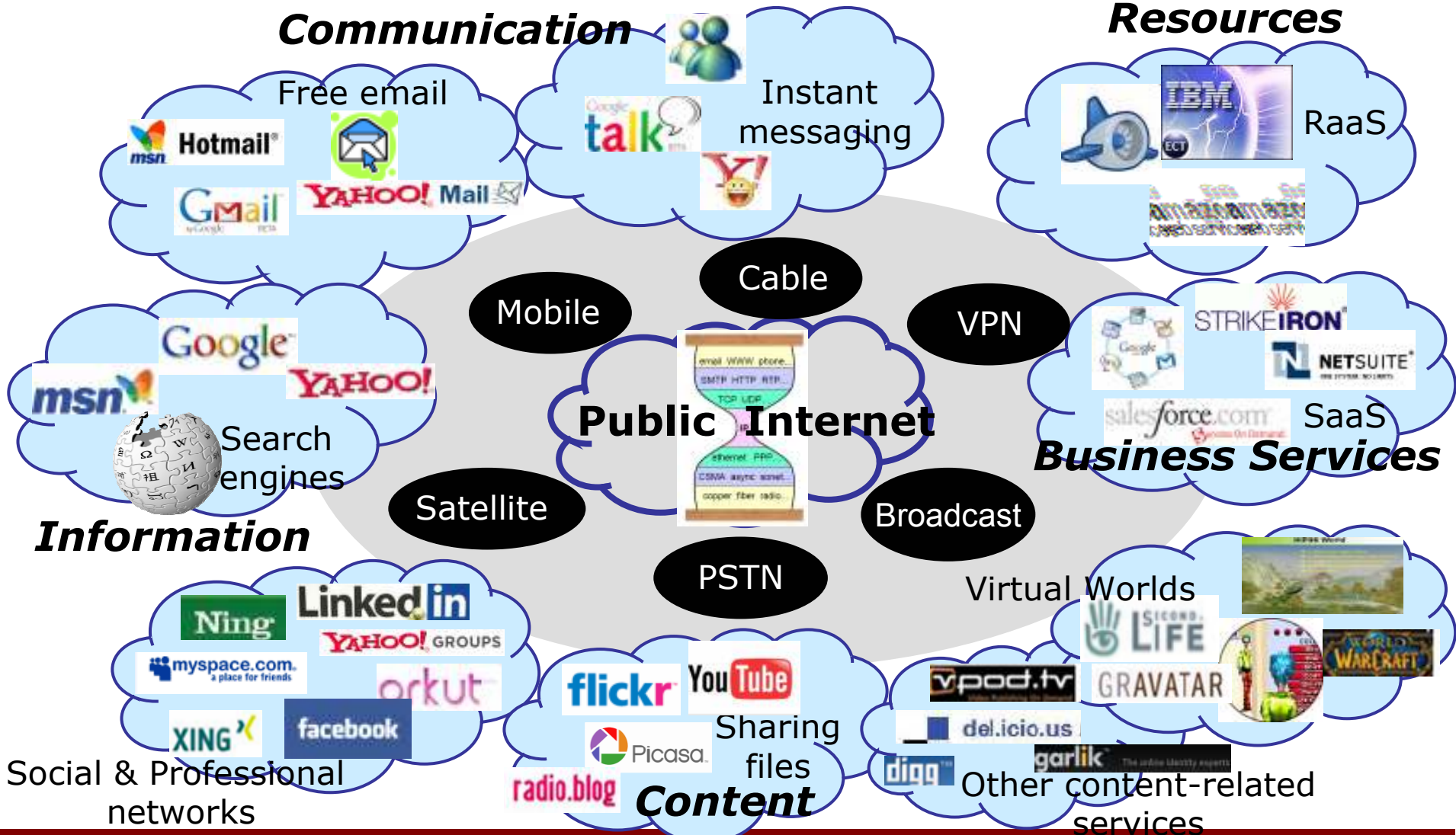
www.future-internet.eu/
www.fi-madrid.eu/
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The Internet of Today

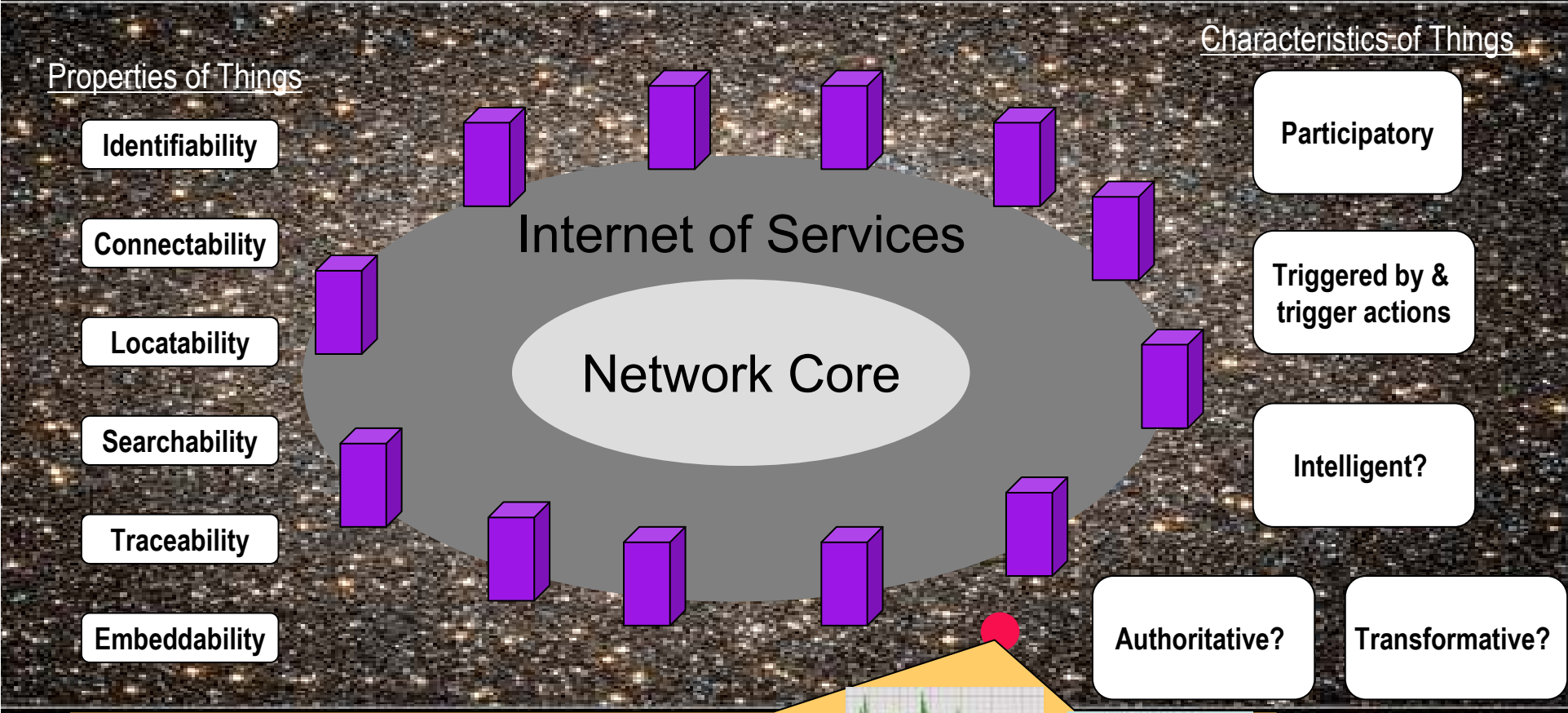
Adapted from A Zwegers, 2008





Future Internet: Middle and The Edge

All the World is Internetable and Serviceable



Sensors, actuators, microsystems, mechatronic systems, fixed and mobile readers, PDAs and their variations, "blogjects", smart dust ...





What is a Service?

- **IT**
 - An executing software component
 - Access, interaction, description, discovery, composition
- **Telecoms**
 - What the end-user (customer) pays for
 - Session, use of networks and network resources, terminals
- **Media**
 - Mechanisms and channels for content production, mediation and consumption
- **“Things”**
 - The capability which enables the networking of physical objects and the exchange of information pertaining to those objects

Example definition (<http://www.w3.org/TR/ws-arch/#whatis>): A Web service is a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically WSDL). Other systems interact with the Web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards.



Areas of Potential Cooperative Projects

- **Technological components**
 - ✓ ID technologies
 - ✓ Terminals
 - ✓ Networked services
- **Architectures and applications**
 - ✓ Different classes of processes
 - ✓ Different classes of events
 - ✓ Information aggregation from both virtual and physical worlds
- **Architectural models**
 - ✓ Open governance principles and schemes; (autonomous?) trust models
 - ✓ Intelligence at the edge - innovation beyond the DNS
 - ✓ The nature of “things”
- **International cooperation**
 - ✓ Strategic visions, research roadmaps and cooperative events