SRII Special Interest Group on

Knowledge-Intensive Service Systems

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Website: http://www.ssmenetuk.org/kiss.asp

Definition of KISS

Knowledge Intensive Service Systems are configurations of people, technologies and other resources, brought together in an intentionally holistic manner to deliver those services that depend on a continuous process of generation, acquisition and use of specialist domain knowledge.

Objectives of the KISS SIG

- The SRII Knowledge Intensive Service Systems SIG will bring together research in knowledge intensive services with that of systems thinking and to encourage a multidisciplinary view of service systems
- The SIG will aim to stimulate holistic and creative thinking among its members and to be an open and democratic group welcoming both researchers and practitioners
- The SIG will promote Knowledge Intensive Service Systems through conferences and workshops and will stimulate the creation of educational and training materials

Background and Further Definition

Recent years have seen a phenomenal growth in knowledge intensive service activities across a variety of industry sectors. They depend on a continuous process of generation, acquisition and use of new information and knowledge or new combinations of existing information and knowledge[1] to innovate and grow. The Knowledge Intensive Service Systems SIG will extend current research and analysis of practice in such systems. In particular, we will move beyond thinking of knowledge as a "thing" that can be narrowly defined by structures and ontologies. The aim is to build an improved understanding of knowledge as being co-created between consumers and producers, and through collaboration within communities.

Knowledge Intensive Services are part of a wider service system. A service system being "a configuration of people, technologies, and other resources that interact with other service systems to create mutual value." Viewing services as systems allows us to study their structure, reason about their properties and behavior, understand their processes, and test their validity. In addition, thinking about services in terms of systems also forces us to consider their limitations and constraints, and their environments and contexts.

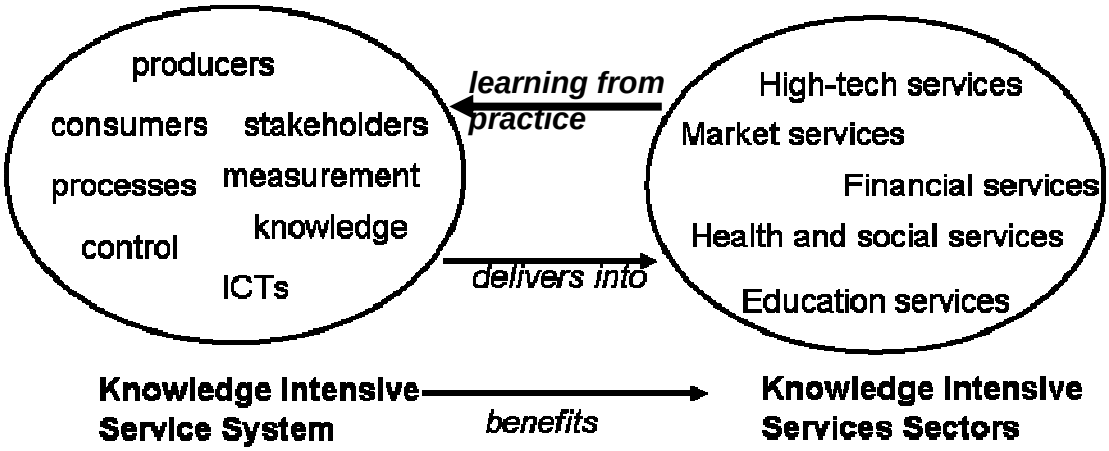
Services are often produced within a 'service system' that involves multiple suppliers of goods and services. In such systems, knowledge plays a central role; but we must also recognise the integral role of consumers, producers and other stakeholders in co-production of intermediate and final services, and in co-creating the knowledge required for the evolution and continuous innovation of the knowledge intensive service systems.

[1]Madhavan, R., and Grover, R., 1998, From embedded knowledge to embodied knowledge: new product development as knowledge management, *Journal of Marketing*, 62 (4): 1-12.

Benefits of Knowledge Intensive Service Systems

The key benefits of technology-based innovation in knowledge intensive service systems include the following:

1. Reducing the cost of the knowledge intensive services by increasing the level of automation in service delivery thus allowing relatively inexperienced people to perform very sophisticated tasks quickly and increasing the opportunity for self-service
2. Increasing the opportunity for co-creation of value between service providers and service consumers by interacting with a wider range of knowledge and knowledge sources.
3. Increasing the opportunity for service innovation through exploiting a more holistic, systems view of service, including emerging knowledge based technologies.



Beneficiaries of the SIG

A broad definition of Knowledge-Intensive Service Sectors has been propounded by the European Union (Eurostat) recognising the need to differentiate among service sectors. Eurostat has now introduced the concept of "Knowledge-Intensive Services".[2]

They are categorised as follows:

1. Knowledge-intensive high-technology services
    a. Post and telecommunications
    b. Computer and related activities
    c. Research and development
2. Knowledge-intensive market services
    a. Water transport
    b. Air transport
    c. Real estate activities
    d. Renting of machinery and equipment without operator and of personal and household goods
    e. Other business activities
3. Knowledge-intensive financial services
    a. Financial intermediation (except insurance and pension funding
    b. Insurance and pension funding, except compulsory social security

[2] http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/Annexes/reg_hrst_sm1_an4.pdf

    c. Activities auxiliary to financial intermediation
4. Other knowledge-intensive services
    a. Education
    b. Health and social work
    c. Recreational, cultural and sporting activities

The basis for this classification rests on the share of high-skill (=graduate) employees in the workforce of each sector.

SIG Strategy

The KISS SIG main strategic objective is to build an active community of researchers and practitioners interested in Knowledge Intensive Service Systems. Particularly, we are interested in looking at how KIS firms help their clients with their innovation processes and how the interaction with clients helps KIS firms to improve their own innovation processes including service operations.

The SIG strategy will include targeting the development of appropriate case studies and exemplars of good practice demonstrating how KIS firms contribute to wealth creation. The SIG strategy will also address the role of KIS firms in regional, national and globalised innovation systems and their role as facilitator, carrier, source and co-producer of such systems[3].

The KISS SIG will seek to stimulate innovation, reflect on practice and create opportunities for development of holistic thinking using active mechanisms such as Service Innovation Laboratories and Living Labs.

SIG Activities

The KISS SIG will achieve its strategic objective through a research, practice, educational and political activities including:

- studying socio-economic data at firm and industry level, investigating trends and policies and recommending ways to look forward.
- examining the role of KISS in economic development and sustainability
- developing scenarios of the future that explore and exploit KISS capabilities
- examining how KISS affect design and innovation processes in different ways and how their use varies across sectors and across time both on the supply side and the demand side
- examine how KISS supports improvement of design and innovation processes
- studying the characteristics of intensive knowledge work
- developing the theoretical foundations in knowledge-intensive services and service systems
- creating a body of knowledge in KISS incorporating a ‘core’ set of literature that defines the field
- developing educational and training programmes
- developing and gathering case studies and examples of best practice
- creating a learning environment through which members reflect on case studies to identify common themes
- promoting the need for KISS research among research funding councils and government agencies

[3] See the preceding footnote, and Hauknes, J., 1998, Services in Innovation--Innovation in Services, Research Report, STEP Group, Olso, Norway.

Roadmap/Deliverables/Goals

PERFORMANCE INDICATOR	TARGET		
	Year one	Year two	Year three
SIG Leadership Team	15	20	20
SIG Membership	30	60	90
International coverage	10 countries	15	20
SIG Leadership teleconference	5	5	5
SIG Leadership face to face and with others from industry	1	1	1
Workshop at major conference	1	1	1
White papers	1	1	1
Reports to academics	1	1	1
Case studies	0	2	3
SRII SIG updates	12	6	6
Funding proposals for SIG	1	1	1
Research Agenda setting and updating	1	1	1

SIG Leadership Team

SIG Chairs:
Linda A Macaulay, Professor of System Design
Ian Miles, Professor of Technological Innovation and Social Change
Dr. Babis Theodoulidis, Senior Lecturer in Information Management
Centre for Service Research at the University of Manchester, England

Aleksander J. Kavs,	Senior Vice President,	State Street Corporation, State Street Hangzhou Hangzhou, China
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Darek Ceglarek	Professor, Digital Laboratory, Warwick Manufacturing Group	University of Warwick, UK
Pere Botella	Software Engineering for IS Research Group	Technical University of Catalonia, Spain
Heitz Christoph	Professor, School of Engineering	Zurich University of Applied Sciences, Switzerland
Walter Ganz	Director, Fraunhofer Institute	Fraunhofer-Institut für Arbeitswirtschaft und Organisation Stuttgart, Germany
Marja Toivonen	Director, Adjunct Professor BIT Research Centre	Helsinki University of Technology, Finland
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Michael	Chief Researcher, Services and	BT, Adastral Park, UK

Lyons,	Systems Science, BT Innovate,	
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Jennifer Wilby	Director Centre for Systems Studies	Hull Business School, UK
Xiaohu Yang	College of Computer Science & Technology	Zhejiang University, China
Terry Nolan	Centre for Research on Information Systems Management	Auckland University of Technology, New Zealand
Liping Zhao	School of Computer Science	University of Manchester

SIG Communications Process/Tools

Communication mainly through tools provided on the SRII SIG website and other web based technologies.

SIG Budget/Sponsorship

We envisage that membership to the SIG will require payment of a membership fee
A key issue for the SIG is how to create value for its members and also its sponsors.
We assume that most deliverables will be publicly available and members of the SIG will participate in the creation of these.
Budget items include admin costs e.g., web site development and maintenance costs, admin support, promotion/publicity costs; travel costs;

Proposer

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