

Living In the KnowlEdge Society (LIKES) Initiative and iSchools' Focus on the Information Field

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INTRODUCTION

As iSchools try to equip college graduates with skills and knowledge to work in the Information Field (iField), the Living In the KnowlEdge Society (LIKES) Community Building project focuses broadly on preparing these graduates to live in and to build the emerging knowledge society of the 21st century. We expect that LIKES graduates will connect naturally with the iField, and hope for more synergy between the two initiatives.

iSchools attempt to immerse people in the iField. Ron Larsen, Dean of the University of Pittsburgh's School of Information Sciences, emphasizes the importance of 'totality,' which is to integrate information in different disciplines, with technology in society, when educating students. As with LIKES, iSchools often aim to reach out to all parts of their campuses, to broaden the impact of their education, research, and service programs. All iSchools provide courses that teach computing concepts as well as information-related topics.

LIKES VISION AND ISCHOOLS

LIKES was launched in 2007, as part of NSF's CPATH program to transform computing education at the undergraduate level to meet the challenges ahead.

Goals and objectives of the LIKES project:

- •Goal 1: Transform computing education so graduates can help build systems, services, tools, or new paradigms for the Knowledge Society.
- •Goal 2: Establish collaboration between computing educators and all other disciplines to support educating the next-generation of knowledge society builders.
- •Objective 1: Ensure that all interested undergraduates are prepared for living in the emerging Knowledge Society of the 21st Century.
- •Objective 2: Spread computational thinking, fundamental CS/IT paradigms, key computing concepts, and ICT paradigms across the Knowledge Society.

Frequently taught computing topics in iSchools:

algorithms, databases, human-computer interaction, information retrieval and storage, information visualization, networks, etc. (Please see the graph on the right for more topics)

Computing Topics in iSchool Courses

	0
databases	
IR web-related	
HCI DL	-
networks	-
information systems.	••_
information visualization CSCW	-
natural language processing	
algorithms	-
knowledge management	
OO development OS	
data mining	-
distributed computing	
information security	
client-server systems computer networks	-
data management	
decision support and.	••_
search engines	
software engineering	-
architectures	-
classification systems	••-
communication protocols computational informatics	
computer architecture	
computer design	
cyber security	••-
data compression data modeling	
data visualization design of complex web sites	
digital government	-
expert systems	
indexing and abstracting.	
interactive system design interoperability issues	
machine learning in.	••_
music information.	••-
network system. networked computing	••-
networking and internet programming	••_
programming languages	-
recommender systems	• • -
social computing	
software development software foundations	-
software systems	-
text mining	-
wireless interactive.	••_
XML	

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Tech





SUCCESSES, LESSONS, GRAND CHALLENGES

Success	ses: New Courses Crea	
•	VT: Introduction to LI	
●	SCU: Information Tec	
ullet	NC A&T: Introduction	
ullet	Villanova: The Laptor	
Grand challenges identified from		
1.	Preparing students for	
	collaborative environm	
2.	Information literacy ar	
	technology	
3.	Enticing faculty to inco	
	collaborate with each	
4.	Limitations in software	
	visualization/simulatio	
	specific purposes, dis	
	and the developers of	
5.	Archiving limitations	
6.	Lack of research supp	
7.	Deep understanding a	
	problems in various co	
8.	Moving from massive	
	generation to testing	
9.	Spreading LIKES to or	
	LIKES process in term	
	(e.g., incorporation of	
	- supercomputing/grid	







ated in Four Sites

IKES, LIKES capstone chnology, Business and Society of Web Science p Instrument (CS + Music) m the workshops r scholarship and work in nents nd critical thinking regarding the orporate computational thinking and other e tools and their use – on for large classes, lack of tools for sconnect between humanity's needs the tools (making usable tools) port (e.g., funding, etc.) and ability to match abstractions with ontexts through modeling/using amount of data to hypothesis other disciplines and implementing the ns of maintainability

new computing concepts dynamically d computing/cloud computing)