**Thursday April 17**
6:00-9:00 pm - Reception, Sheraton Hotel at Four Seasons.

**Friday April 18**
8:00-8:30 am - Breakfast.
8:30-9:00 am - Welcome and introduction to LIKES.
9:00-10:00 am – Group Session 1: Discussion and refinement of the LIKES vision by attendees.
10:00-10:15 am - Tea break.
10:15-12:15 noon - Group Session 2: Learning about participants work with LIKES concepts I.
12:15-1:15 pm – Lunch: Computational hip hop and other presentations.
1:30-2:30 pm – Keynote Speech 1: Judy Cushing.
2:30-4:00 pm - Breakout Session 1: Identifying key concepts by discipline.
4:00-4:15 pm - Tea break.
4:15-5:15 pm – Breakout Session 2: Identifying computing concepts that fit with key concepts for the discipline from breakout session 1.
5:45-8:00 pm – Dinner.

**Saturday April 19**
7:30-8:00 am - Breakfast.
8:00-9:00 am – Group Session 3: Learning about participants work with LIKES concepts II.
9:00-10:00 am – Keynote Speech 2: Owen Astrachan.
10:00-10:30 am - Tea break.
10:30-12:00 noon - Breakout Session 3: Describing how computing concepts apply to key discipline concepts.
12:00-1:00 pm – Lunch: Music presentation (Ajay Kapur).
1:30-3:00 pm - Breakout session 4: Identifying ideal implementations of computing concepts for key discipline concepts.
3:00-3:15 pm - Tea break.
3:15-5:15 pm - Concluding session.
5:45-8:00 pm – Dinner.
Keynote Speakers

Judy Cushing

Arrived at The Evergreen State College in 1983 to teach computer science and software engineering, after 11 years as a software developer for large companies (IBM and TI), universities (Cornell, UTHSCD, and Bordeaux), and two small startups. With generous grants from the Boeing Corp. and the Pacific Northwest National Laboratory, she took a 4-year leave from Evergreen for graduate school at the Oregon Graduate Institute and in 1992 received her Ph.D. in Computer Science and Engineering.

Since returning to Evergreen, and teaching software engineering and broadening the computer curriculum, she has remained active in scientific database and digital government research communities, and worked on projects ranging from medical, hospital, and epidemiological systems, computational *ab initio* chemistry, molecular biology, and now ecology. Her research objectives are to improve information technology for scientists and natural resource managers, and to enable end-user programming for ecologists.

Owen Astrachan

Professor of the Practice of Computer Science at Duke University and the department's Director of Undergraduate Studies for Teaching and Learning. He earned his AB degree with distinction in Mathematics from Dartmouth and MAT (Math), MS, and PhD (Computer Science) from Duke. He received an NSF CAREER award in 1997 to incorporate design patterns in undergraduate computer science curricula, an IBM Faculty Award in 2004 to support componentization in both software and curricula, and was one of two inaugural NSF CISE Distinguished Education Fellows in 2007 to revitalize computer science education using case- and problem-based learning.

Professor Astrachan's research interests have been built on understanding how best to teach and learn about object-oriented programming, software design, and computer science in general; he is now working on developing a portfolio of substantial, interdisciplinary problems that help explain how computer science is relevant to students in the social and natural sciences. Professor Astrachan received Duke's 1995 Robert B. Cox Distinguished Teaching in Science Award, an Outstanding Instructor Award while teaching on sabbatical at the University of British Columbia in 1998, and Duke's 2002 Richard K. Lublin award for "ability to engender genuine intellectual excitement, ability to engender curiosity, knowledge of field and ability to communicate that knowledge."
Researchers

PI Edward A. Fox (Virginia Tech)
Dr. Fox has served as PI or co-PI on 100 research grants. In addition to his courses (e.g., information retrieval, digital libraries) at Virginia Tech, Dr. Fox has taught about 70 tutorials in about 25 countries. He has given about 60 keynote/banquet/international invited/distinguished speaker presentations, about 140 refereed conference/workshop papers, and over 250 additional presentations. He has co-authored/edited 13 books, 83 journal/magazine articles, 37 book chapters, and many reports. Fox holds a Ph.D. and M.S. in Computer Science from Cornell, and a B.S. from M.I.T. Since 1983 he has been at Virginia Tech, where he directs the Digital Library Research Laboratory.

Co-PI Bob Beck (Villanova)
Dr. Beck is professor and chair of the Villanova University Department of Computing Sciences. He has a B.S. in Mathematics from Harvey Mudd College and a Ph.D. in Mathematics from the University of Pennsylvania. His early experiences in computing include writing the simulation of a "teaching machine" for IBM. He teaches courses in programming languages and human computer interaction as well as courses at the interface of computing and biology and an innovative introductory course for non-technical majors.

Co-PI Ed Carr (North Carolina A & T State University)
Mr. Carr is an assistant professor (adjunct) in the Department of Computer Science, North Carolina A&T. He holds an M.S. in Applied Mathematics from Western Carolina University and an M.S. in Computer Science from North Carolina A&T. His research areas are in constraint satisfaction problems, interconnection networks, graph theory, combinatorics, Hamiltonian cycles in directed graphs, vertex transitive graphs, and block designs.

Co-PI Wingyan Chung (Santa Clara University)
Wingyan Chung is an assistant professor in the Department of Operations and Management Information Systems of Santa Clara University. He received a Ph.D. degree in management information systems from The University of Arizona, and MS in IT management and BBA in business administration from The Chinese University of Hong Kong. His research interests include business intelligence, data and text mining, Web analysis and mining, infomation visualization, and human-computer interaction.

Co-PI Carlos Evia (Virginia Tech)
Dr. Evia is an assistant professor of Professional Writing in the English Department at Virginia Tech. He is also a member of the leadership team of the Virginia Tech Center for Innovation in Construction Safety and Health. He received his Ph.D. in Technical Communication and Rhetoric from the Department of English at Texas Tech University in May 2004. He also holds a Master's in Computer Systems from Universidad La Salle, in Mexico City, and an B.A. in Communication from the Instituto de Ciencias Sociales de Mérida, in Yucatan, Mexico.

Co-PI Patrick Fan (Virginia Tech)
Dr. Weiguo (Patrick) Fan is an associate professor of information systems and computer science at Virginia Tech. He received his Ph.D. in Information Systems from the Ross School of Business, University of Michigan, Ann Arbor, in July 2002, a M. Sce in Computer Science from the National University of Singapore in 1997, and a B. E. in Information and Control Engineering from the Xi'an Jiaotong University, P.R. China, in 1995.

Co-PI Steve Sheetz (Virginia Tech)
Dr. Sheetz has a Ph.D. from the University of Colorado. His specializations are object-oriented software engineering, software measurement and psychology of programming.

Co-PI Christopher Zobel (Virginia Tech)
Dr. Zobel is an Associate Professor of Business Information Technology in the Pamplin College of Business. He holds a Ph.D. in Systems Engineering from the University of Virginia, the M.S. in Mathematics from the University of North Carolina at Chapel Hill, and the B.A. in Mathematics from Colgate University. His primary research interests are in the areas of intelligent decision support systems, knowledge engineering, large-scale stochastic decision problems, heuristic problem solving, and computer-based simulation.

Postdoctoral researcher Ryan Richardson (Virginia Tech)
Dr. W. Ryan Richardson is a postdoctoral researcher on the LIKES (Living in the KnowEdge Society) project. He has a Ph.D. from the Department of Computer Science at Virginia Tech. He holds a B.A. in computer science from Bellarmine University in Louisville, Kentucky, and a M.S. in computer science from Virginia Tech.
The vision for the LIKES project is to build a community that will define the way to make systemic changes in how computing concepts are taught in both computing-related disciplines and the disciplines of the broader workforce and society. Revitalizing education in computing-related disciplines is necessary to reach a broader audience of potential students and produce a larger number of professionals with the computing competencies and skills that are imperative to designing and building the innovations of the future. More people are needed in all computing-related disciplines, e.g., computer science, information systems, and information technology, to maintain our competitiveness and ensure the health, security, and prosperity of the nation in the face of outsourcing and globalization.

However, it is not sufficient to increase the numbers of computing professionals. The needs of the Knowledge Society also require improvements in the computing competencies and skills of people in all disciplines. This is due to the pervasive and growing needs for computing in society. Many jobs require workers to have the knowledge and abilities to apply computing concepts to accomplishing individual, group, organizational, and societal goals.

Yet, most students from non-computing related disciplines have limited opportunities to learn computing concepts. If anything, they only learn rudimentary uses of searching for information, creating reports/presentation and communicating through email. This “computing as simple tool” emphasis is not capable of leveraging the intellectual capabilities of these students. Providing them with the knowledge of computing concepts has the potential to transform their thinking about what they are capable of doing.

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**Workshops**

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<td>Defining Problems and Applications of the Knowledge Society. (Nov-Dec, 2007)</td>
<td>SCU</td>
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<td>2</td>
<td>Identifying Computing Concepts for the Knowledge Society. (April, 2008)</td>
<td>NC A&amp;T</td>
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<td>3</td>
<td>Learning in the Knowledge Society (October, 2008)</td>
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<td>Building the Knowledge Society (February, 2009)</td>
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