Introduction to HICSS-52 Invited Track on Software Engineering Education and Training

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For the past 30 years, software engineering education has changed a great deal. In 1986, software engineering education was largely undertaken by industry, with just a few academic software engineering programs in place. The Master of Software Engineering (MSE) reference curriculum changed the landscape of software engineering, resulting in many MSE programs worldwide, not to mention software engineering tracks within Computer Science (CS) masters' programs. In the years that followed, software engineering education emerged at the undergraduate level, with a documented reference curriculum. Software engineering professionalism initiatives resulted in the certification and licensing of software engineers in a number of countries worldwide. We are seeing increased attention to software engineering specialty areas, and many software engineering degree programs have tracks to support these specialties.

On the industry side we are seeing an upheaval in software engineering as we know it. Software engineering is pervasive. Innovations such as Cloud Computing, autonomous vehicles, drones, bioengineering, and other initiatives have made for a rapidly changing landscape. Topics such as software assurance, safety, and reliability have become increasingly important knowledge areas. As educators we are challenged to keep up with the emerging trends, to identify suitable software engineering techniques, and to incorporate them into our class offerings. We are in a global economy with a software supply chain that can extend across many countries and regions. Each one has their own regulations and laws about safety, security, and privacy. Practicing software engineers change jobs frequently, so the value of in-house training is not as clear as it once was.

The list below indicates areas in the focus of this HICSS-52 special track.

- Communication With Clients, Peers, Etc.
- Cooperation Between industry and Academia
- Degree Specializations
- E-Learning, Online Training, and Education
- Measuring Education and Training Results
- Methodological Aspects of Software Engineering Education
- Teaching Conceptual Modeling
- Open Source in Education
- Revolutionizing Computer Science and Software Engineering Education: Perspectives and Progress
- Vision For Software Engineering Education in the Future
- Novel Delivery Methods