Introduction to the Decision Analytics, Mobile Services and Service Science Track (DA/MS/SS)

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The Decision Analytics, Mobile Services and Service Science Track got started more than 20 years ago at the HICSS-31 in 1998 under the name *Modelling Technologies and Intelligent Systems* that Prof Dan Dolk of the Naval Postgraduate School introduced. The name and the focus shifted at HICSS-33 to *Decision Technology in Management* that Dan Dolk now introduced in order to get contributions to the use of information systems to support managerial planning, problem solving and decision making. This theme continued for 12 years (through HICSS-44) under the leadership of Dan Dolk and with quite some success, as the track most of the time had 12 mini-tracks, which kept collecting good contributions of high quality papers. The track reacted to the rise of the mobile technology early on and started a mini-track on mobile commerce and mobile services at HICSS-35 in 2002. Mobile technologies then got quickly picked up by most of the other tracks and the plans we had to get a critical mass of papers on mobile services concentrated to one track could be realized only at HICSS-45. The track changed name to *Decision Technology, Mobile Technologies and Service Science* at HICSS-45 in 2012 when Dan Dolk asked Prof Christer Carlsson of the Abo Akademi University in Finland to join him as track co-chair. As Dan Dolk wanted to retire from the chair after running the track very successfully for 14 years, Prof Haluk Demirkan, University of Washington, was elected to join Christer Carlsson as track co-chair. The discussion had been going on for a couple of years that decision support for managers should start to incorporate the new *analytics* movement that had started to take over from the classical Operations Research and Management Science as a major shift in producing critical data, information and knowledge for managerial planning, problem solving and decision making. The analytics relies on software that makes it possible to make use of advanced analytical methods as part of corporate and enterprise information systems. The track changed name to present form of DA/MS/SS for HICSS-46 in 2013.

There have been a number of memorable events organized by the track over the two decades of operation. Space does not permit to report them in any detail – we discussed them in one of the history sessions at HICSS-50 – but the full-day workshop *Evolution of Mobile Ecosystems* that Nokia and Microsoft organized at HICSS-46 is probably historic as some of the disruptions that changed the mobile industry forever emerged in the workshop.

The DA/MS/SS Track works out emerging managerial and organizational decision-making strategies, processes, tools, technologies, services and solutions in the Digital Age. This is done in 3 interrelated themes. The first theme, *Analytics*, focuses on decision making processes, analytics tools and supporting technologies which has collected papers on big data and analytics, business intelligence, cognitive analytics, decision support, gamification, logistics and supply chain management, machine learning and network analytics, deep learning, visual decision analytics, streaming data analytics, multi-criteria analysis, etc. which now are core research themes in analytics. *Mobile services* focus on development and interaction with data, information and analysis results on mobile technology platforms, collect papers on mobile value services, and open digital services. Challenges and issues of service industries, service orientation and service transformation of strategies, processes, organizations, systems and technologies form the *Service Science*.

In the 2019 HICSS, the DA/MS/SS Track has stabilized at 23 mini-tracks:

1. Big Data and Analytics: Pathways to Maturity
2. Novel Uses, Opportunities and Challenges of Block chain for Digital Services
3. Digital Mobile Services for Everyday Life
4. Smart City Digital Twins
5. Digital Services and the Digitalization of Services
6. Decision Support for Complex Networks
7. Intelligent Decision Support and Big Data for Logistics and Supply Chain Management
8. Decision Support for Smart Cities
9. Machine Learning and Network Analytics in Finance
10. Gamification
11. Analytics and AI for Industry - Specific Applications
12. Data, Text, and Web Mining for Business Analytics
13. Multi-criteria Decision Analysis and Support Systems
14. Service Analytics
15. Service Science
16. Internet of Things: Providing Services Using Smart Devices, Wearables, and Quantified Self
17. Smart Service Systems: Analytics, Cognition and Innovation
18. Intelligent Decision Systems Based on Soft Computing
19. Sustainability in the Fourth Industrial Age: Technologies, Systems and Analytics
20. Machine Learning, Robotic, and Toy Computing
21. Mixed, Augmented and Virtual Reality: Co-designed Services and Applications
22. Interactive Visual Analytics and Visualization for Decision Making – Making Sense of a Growing Digital World
23. Expert Mobile Networks

The mini-track chairs have written brief summaries of their mini-tracks and overviews of the papers in their sessions. Panels explore potential demand for new mini-tracks or re-orientation of existing mini-tracks to capture emerging trends in Analytics.

We wish to thank all the people who have worked efficiently and effectively to develop the DA Track. The authors who have contributed new research results, the MT chairs who have spent countless hours to get good quality papers, to get reviewers to accept work for HICSS and then to evaluate and judge the review results. The high-quality collection of 107 accepted papers in the DA Track (with an acceptance rate of about 50%) is a result of their efforts.