

Message from the SE4COG 2018 Co-Chairs

Welcome to the 1st International Workshop on Software Engineering for Cognitive Services (SE4COG 2018). We are excited and happy to have you here. The motivation for the workshop comes from the recognition that we are entering a new era of computing and we are moving in a somewhat uncharted territory.

We are transitioning from a deterministic model where services are invoked with known, fixed, understood parameters and the service performs exactly what is requested, barring systems error, to a scenario where services try to interpret the user request in the best possible way and access the resources they consider appropriate for fulfilling the request, amongst a large and rapidly evolving set of available base APIs to be invoked.

In this workshop, we will discuss the issues and challenges that such services bring from a software engineering perspective. Through a set of talks, panels, and open discussions we will try to understand and identify which are the fundamental differences of cognitive services and how we need to approach both the challenges they present but also the opportunities.

Are current approaches to service design valid and applicable for cognitive services? What about requirements, testing, and even entirely new problems from a service engineering perspective, such as training? Even basic notions of correctness change and become somewhat blurred in cognitive service design, and it seems that disciplines such as HCI, information retrieval, knowledge management, and various sides of artificial intelligence become deeply intertwined in the service engineering process.

How about service deployment in distributed elastic cloud infrastructures that are ubiquitous? How do we address service quality assurance at run-time such as response time, security, regulatory compliance of data mobility in the face of non-deterministic fluctuations in workloads and available computing resources? Are current software engineering practices adequate to harness the multi-core servers, GPUs, Optical software defined WANs to provide the scale, resiliency and efficiency demanded by global communication, collaboration and commerce services?

These are only some of the issues and questions we will consider during the workshop. We hope in your active participation as we will need all your brainpower to identify the promising research directions and lay out a map that is hopefully useful for researchers exploring this new ground.

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