From simulated dialogues to interactive performances with virtual actors

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Abstract. In my talk, I will argue in favor of a shift from applications with single presentation agents towards flexible performances given by a team of characters as a new presentation style. Infotainment and edutainment transmissions on TV as well as advertisement clips are examples that demonstrate how information can be conveyed in an appealing manner by multiple presenters with complementary characters and role castings. However, our approach distinguishes from conventional TV presentations by at least two features: adaptivity and interactivity. I will illustrate the approach by means of various academic and industrial projects we conduced at DFKI GmbH and at Augsburg University. In the first group of systems, the attribute "flexible" refers to the system's ability to adapt a presentation to the needs and preferences of a particular user. In the second group of systems, flexibility additionally refers to the user's option of actively participating in a computer-based performance and influencing the behavior of the involved characters at runtime. While a plan-based approach has proven appropriate in both versions to automatically control the behavior of the agents, the second group of systems calls for highly reactive and distributed behavior planning.