Customization: How Does Your App Adapt?

On August 23rd, 2009, the 8th annual AVIxD workshop was held on the topic, *'Customization: How Does Your App Adapt?'* For too long, the rich and complex concept of application customization was misunderstood as simple personalization. The goal of this workshop was to explore this richness and discover not only contemporary examples of sophisticated customization, but to provide guidance to the voice design community on future capabilities. The Association for Voice Interaction Designers (AVIxD) is now publishing three papers that explore the topics of managing the customization experience, using situational awareness to provide a superior experience, and how to use data-adaptive techniques to change an application's behavior "on the fly."

The first paper, *'Somebody's Watching Me: Managing Voice Experience Customization,'* defines what customization means, and what it doesn't: "Customization refers to a range of user interface design modifications made to craft a flexible, predictable, and tailored voice interaction experience. Personalization is a subset of customization but is narrower in its definition: the user experience is tailored to a specific individual user." The business goals of customization are explored and defined, and justification for each goal is provided. The special needs of power users and casual users are discussed, as are the unique challenges of problem-focused applications. A comprehensive list of design considerations is also included that will help both the novice and expert designer.

The second paper, *'You Don't Have to Get Personal! IVR Customization via Situational Awareness,'* explores the importance of a speech application to provide "situational awareness." This technique is not about personalization, but refers to the advanced capabilities of a modern, integrated application to use external data sources to provide the most intelligent path through a call. Six specific topics are covered: Context of use, organizational knowledge, domain and world knowledge, knowledge of caller groups, knowledge of caller behavior, and techniques for designing situational awareness. In summary, the aim of situational awareness is to ensure that the IVR is built with corresponding models of the intended domain, a more complete and accurate model of the organization, and an understanding of the caller and his context of use.

The third paper, *'Data Adaptive Dialog Systems,'* discusses emergent techniques for enabling a dialog system to learn or adapt its behavior automatically, with little or no human intervention. Methods for applying these techniques are investigated for four different domains: grammars, prompts, call flows, and user models.

The authors hope that the voice design community finds these papers instructive and practical.