

Jargon-busting software bridges the knowledge gap

July 14 2010

Conversations between students and teachers, patients and doctors, and other groups of lay people and experts, such as users and helpdesk staff, can suffer because of the difference in knowledge levels of each party in the conversation - a so-called "semantic gap". The expert may use jargon and buzzwords or simply assume a level of understanding of basic principles that is lacking in the lay person. For conversations taking place in the digital realm, via Instant Messaging, for instance, researchers in Japan believe they have the answer.

Fumio Hattori and colleagues at Ritsumeikan University have developed a tool that works in parallel with the [Instant Messaging](#) protocols for carrying text chat back and forth between connected IM programs on the internet. Writing in the International Journal of Intelligent Information and Database Systems, they explain how they have extended the Extensible Messaging and Presence Protocol (XMPP) so that it not only carries the data for instant messaging (IM) to allow users to communicate, but can carry additional information at the same time.

The additional information is driven by an extra software agent that rides piggyback on the XMPP and controls which users see additional glossary information when particular terms are typed. The users' level of expertise is assigned and the agent then decides during the IM session what extra information any given user needs to allow them to gain the most from the IM.

To prove that the approach works, the team has used it in an English

composition class in which teacher and students regularly undertake IM chats. They mapped a glossary, or ontology, for the teacher's knowledge, keywords, and expertise, and mapped this to a similar glossary with simplified terminology for the students. This allows the students to see an explanation of a particular term the teacher uses without their having to ask the teacher to explain it each time. "Bridging the semantic gap in this way helps users to communicate easily without considering the knowledge barrier," the researchers explain.

The approach will enhance education and other realms when experts and lay people must interact such as when a novice user calls a helpdesk for a particular application or device. The approach could readily augment audio and video tools, screen-sharing facilities, and so quickly bridge the semantic gap, the team says. The researchers suggest that such an approach would be beneficial in many different areas of life including providing improved support for learning disabled people.

More information: "Bridging the semantic gap in distant communication: providing complementary knowledge within a context" in *Int. J. Intelligent Information and Database Systems*, 2010, 4, 195-211

Provided by Inderscience Publishers

Citation: Jargon-busting software bridges the knowledge gap (2010, July 14) retrieved 26 April 2024 from <https://phys.org/news/2010-07-jargon-busting-software-bridges-knowledge-gap.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--