Chapter 37

Enabling Multilingual Social Interactions and Fostering Language Learning in Virtual Worlds

Samuel Cruz-Lara
University of Lorraine, France

Nadia Bellalem
University of Lorraine, France

Tarik Osswald
University of Lorraine, France

Lotfi Bellalem
University of Lorraine, France

Jean-Pierre Camal
University of Lorraine, France

Jordan Guinaud
University of Lorraine, France

ABSTRACT

Virtual worlds are a new way for people to communicate, to meet and to socialize. They are now pushing the boundaries of multilingual communication. The need for multilingual support is increasing every day, making virtual worlds a very good example of fields of development where applications supporting multilinguality are becoming an absolute necessity.

In order to enhance interoperability between virtual worlds, applications, and corpora, it is obvious that standards should come into place. This is the main goal of MLIF and, on a more global perspective, of the Metaverse1 project. In this paper, we study social interactions in virtual worlds, present some cues to facilitate them, and describe the empirical support that we developed for these theories. We also present a few methods for fostering language learning in virtual worlds, and we explain how we have implemented some of them.

INTRODUCTION

Virtual worlds are a new way for people to communicate, to meet and to socialize. They are now pushing the boundaries of multilingual communication.

Until recently, communication on the Worldwide Web has been constrained within the limits of individual languages, since most web pages, forums and chats are made up of text written in a particular idiom.

These limitations are being challenged by virtual worlds. In 3D virtual environments, the main informative content is no longer text-based (and hence language-dependent), but relies instead on 3D-models. Thus, virtual worlds are likely to attract the interest of people living in different countries and speaking a variety of languages. Once aroused, they might wish to communicate with the persons they have met, just to find themselves stopped by the language barrier.

Such experiences highlight the need for communication tools which would override the bondages imposed by languages. Ideally there should be no limit to people's communication capacities, especially in the virtual worlds.

Moreover, such tools could promote e-Inclusion (e.g.: by easing access to the virtual worlds for all people) and also provide new language learning methods. We have developed a new prototype to that end that we call "the multilingual-assisted chat interface" (Cruz-Lara et al., 2009).

In this paper, we will first examine the multilingual requirements of the virtual worlds, and then highlight the need for high interoperability with the current web (which we will call the 2D-web). This will be illustrated in two scenarios based on multilingual textual information. Finally, we will conclude with a detailed presentation of the architecture of the multilingual-assisted chat interface that we have developed.

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BACKGROUND INFORMATION AND DEFINITIONS

The MultiLingual Information Framework (MLIF)

MLIF, the MultiLingual Information Framework [ISO DIS 24616] (http://mlif.loria.fr, http://www.iso.org/iso/catalogue_detail.htm?csnumber=37330) is a standard project, initiated by Samuel Cruz-Lara and Laurent Romary (LORIA, France). It is being developed by the LORIA, and validated by the International Organization for Standards (ISO) committee.

MLIF provides a generic platform for modeling and managing multilingual information in various domains: localization, translation, multimedia, document management, digital library, and information or business modeling applications. MLIF provides a metamodel and a set of generic data categories for various application domains. MLIF also provides strategies for the interoperability and/or linking of models including, but not limited to: XLIFF, TMX, SMILText and ITS.

The ITEA2 Metaverse1 Project

ITEA2 is an industry-driven, pre-competitive Research & Development program that brings together partners from industry, universities and research institutes in strategic projects.

The Metaverse1 project will provide a standardized global framework enabling the interoperability between virtual worlds (as for example Second Life™, World of Warcraft™, IMVU™, Active Worlds™, Google Earth™ and many others) and the real world (sensors, actuators, vision and rendering, social and welfare systems, banking, insurance, travel, real estate and many others).

In order to bridge the differences in existing and emerging metaverses, MPEG-V Media Context and Control (ISO/IEC 23005) will provide a lower entry level to (multiple) virtual worlds both for the provider of goods and services as well as the user (Timmerer et al., 2009).

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