

# A Framework for the Development of Universal Networking Language E-Learning User Interfaces

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**Abstract.** The UNL infrastructure aims to overcome the language barrier on the Internet. At the same time, distance learning (DL) is becoming the best way to promote the knowledge diffusion across countries. However, the distance learning process still presents some obstacles to be overcome. The UNL can help to reduce particularly those problems and to provide a common educational environment across different languages. Here we discuss the development of the UNL version of an existing web platform for distance learning. The overall goal of this project is to create a framework to support the development of UNL user interfaces applied for e-learning platforms.

## 1 Introduction

This paper presents part of a research project that aims to build an e-learning platform using Universal Networking Language (UNL) technology.

It involves the prototype development of the UNL version of an existing e-learning platform called VIAS-K (Virtual Institute of Advanced Studies - Knowledge Environment). This platform is provided by the Distance Teaching Laboratory, LED, from the Federal University of Santa Catarina, UFSC, Brazil [15]. It supports a huge group of interactive models composed of actors, contents, management, users support and collaborative tools. In order to fully fill each user's specific needs, these models will consider also the variety of users' mother language, based on the UNL system.

Although UNL have been developed with success, it is still a brand-new technology [17]. It is an artificial language that exchanges the knowledge from a natural language to make possible the access of its content through different languages. With the purpose of promoting the development of UNL and the effectiveness of DL, this research proposes a case study that brings UNL into the existing VIAS-K environment.