## Optimizing Human– Computer Interaction With Emerging Technologies

Francisco Cipolla-Ficarra Latin Association of Human-Computer Interaction, Spain & International Association of Interactive Communication, Italy

A volume in the Advances in Human and Social Aspects of Technology (AHSAT) Book Series



Published in the United States of America by IGI Global Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey PA, USA 17033 Tel: 717-533-8845 Fax: 717-533-8861 E-mail: cust@igi-global.com Web site: http://www.igi-global.com

Copyright © 2018 by IGI Global. All rights reserved. No part of this publication may be reproduced, stored or distributed in any form or by any means, electronic or mechanical, including photocopying, without written permission from the publisher. Product or company names used in this set are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark.

Library of Congress Cataloging-in-Publication Data

Names: Cipolla-Ficarra, Francisco V. (Francisco Vicente), 1963- editor. Title: Optimizing human-computer interaction with emerging technologies / Francisco Cipolla-Ficarra, editor. Description: Hershey, PA : Information Science Reference, [2017] | Includes

bibliographical references.

Identifiers: LCCN 2017007748| ISBN 9781522526162 (hardcover) | ISBN 9781522526179 (ebook)

Subjects: LCSH: Social interaction--Handbooks, manuals, etc. | Information behavior--Handbooks, manuals, etc. | Telecommunication--Social aspects--Handbooks, manuals, etc. | Information technology--Social

aspects--Handbooks, manuals, etc. | Telematics--Handbooks, manuals, etc.

Classification: LCC HM1111 .H36 2017 | DDC 302--dc23 LC record available at https://lccn.loc.gov/2017007748

This book is published in the IGI Global book series Advances in Human and Social Aspects of Technology (AHSAT) (ISSN: 2328-1316; eISSN: 2328-1324)

British Cataloguing in Publication Data

A Cataloguing in Publication record for this book is available from the British Library.

All work contributed to this book is new, previously-unpublished material. The views expressed in this book are those of the authors, but not necessarily of the publisher.

For electronic access to this publication, please contact: eresources@igi-global.com.

## Chapter 8 Guidelines Based on Need-Findings Study and Communication Types to Design Interactions for MOOCs

Sandra G. Jiménez-González Universidad Politécnica de Aguascalientes, Mexico

**Ricardo Mendoza-González** *TecNM, Instituto Tecnológico de Aguascalientes, Mexico* 

Huizilopoztli Luna-García Universidad Autónoma de Zacatecas – Campus Jalpa, Mexico

## ABSTRACT

Experts affirm that interaction in learning settings represent a necessary process for knowledge acquisition and cognitive development. In this vein, is crucial to ensure effective interaction and communication through the user interface of MOOCs. This work proposes a set of design guidelines as starting point for developers to integrate a set of interactive elements into the MOOCs' user interface oriented to foster the four basic types for communication in distance education. The design guidelines were conformed through a need-findings process (observing people-interviewing), in which 35 participants provided their user experience perceptions after using MOOCs from edX; Coursera; and Udacity. Obtained results suggest a particular set of interactive communication elements that should be incorporated in every MOOC's user interface.

## INTRODUCTION

Nowadays, the teaching and learning demand is growing inordinately around the world; this phenomenon suggests the need of radical changes and innovative strategies oriented to reinforce currently available techniques.

DOI: 10.4018/978-1-5225-2616-2.ch008