

Commenced Publication in 1973

Founding and Former Series Editors:

Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

Editorial Board

David Hutchison

Lancaster University, UK

Takeo Kanade

Carnegie Mellon University, Pittsburgh, PA, USA

Josef Kittler

University of Surrey, Guildford, UK

Jon M. Kleinberg

Cornell University, Ithaca, NY, USA

Alfred Kobsa

University of California, Irvine, CA, USA

Friedemann Mattern

ETH Zurich, Switzerland

John C. Mitchell

Stanford University, CA, USA

Moni Naor

Weizmann Institute of Science, Rehovot, Israel

Oscar Nierstrasz

University of Bern, Switzerland

C. Pandu Rangan

Indian Institute of Technology, Madras, India

Bernhard Steffen

University of Dortmund, Germany

Madhu Sudan

Microsoft Research, Cambridge, MA, USA

Demetri Terzopoulos

University of California, Los Angeles, CA, USA

Doug Tygar

University of California, Berkeley, CA, USA

Gerhard Weikum

Max-Planck Institute of Computer Science, Saarbruecken, Germany

Robert Meersman Tharam Dillon
Pilar Herrero (Eds.)

On the Move to Meaningful Internet Systems: OTM 2009

Confederated International Conferences
CoopIS, DOA, IS, and ODBASE 2009
Vilamoura, Portugal, November 1-6, 2009
Proceedings, Part I

Volume Editors

Robert Meersman
Vrije Universiteit Brussel (VUB), STARLab
Bldg G/10, Pleinlaan 2, 1050 Brussel, Belgium
E-mail: meersman@vub.ac.be

Tharam Dillon
Curtin University of Technology, DEBII - CBS
De Laeter Way, Bentley, WA 6102, Australia
E-mail: t.dillon@curtin.edu.au

Pilar Herrero
Universidad Politécnica de Madrid, Facultad de Informática
Campus de Montegancedo S/N, 28660 Boadilla del Monte, Madrid, Spain
E-mail: pherrero@fi.upm.es

Library of Congress Control Number: 2009937359

CR Subject Classification (1998): H.2, H.3, H.4, C.2, H.5, D.2.12, I.2, K.4

LNCS Sublibrary: SL 3 – Information Systems and Application, incl. Internet/Web and HCI

ISSN 0302-9743
ISBN-10 3-642-05147-2 Springer Berlin Heidelberg New York
ISBN-13 978-3-642-05147-0 Springer Berlin Heidelberg New York

This work is subject to copyright. All rights are reserved, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, re-use of illustrations, recitation, broadcasting, reproduction on microfilms or in any other way, and storage in data banks. Duplication of this publication or parts thereof is permitted only under the provisions of the German Copyright Law of September 9, 1965, in its current version, and permission for use must always be obtained from Springer. Violations are liable to prosecution under the German Copyright Law.

springer.com

© Springer-Verlag Berlin Heidelberg 2009
Printed in Germany

Typesetting: Camera-ready by author, data conversion by Scientific Publishing Services, Chennai, India
Printed on acid-free paper SPIN: 12779802 06/3180 5 4 3 2 1 0