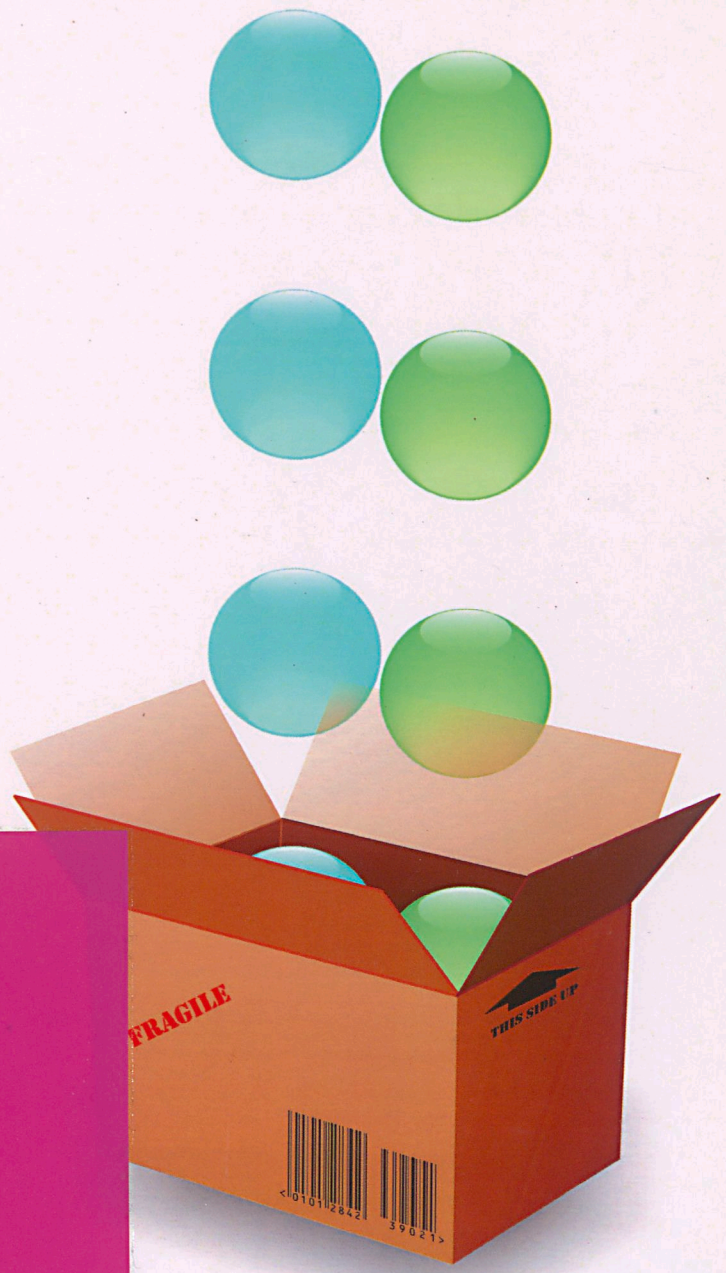
Rüdiger Grimm, Susanne Guth [Eds.]

Virtual Goods



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The 6th International Workshop for Technical, Economic and Legal Aspects of Business Models for Virtual Goods

incorporating

The 4th International ODRL Workshop

http://www.VirtualGoods.org

October 16–18, 2008
Poznań, Poland

Edited by:
Rüdiger Grimm
Susanne Guth

Sponsored by:
IFIP (International Federation for Information Processing),
WG 6.11 Electronic Commerce – Communication Systems;
GI (Gesellschaft für Informatik E.V.), WG ECOM: E-Commerce,
E-Government and Security;
Open Digital Rights Language (ODRL) Initiative;
4FriendsOnly.com Internet Technologies AG (4FO AG)



Poznań 2008

30,00

Cover design
Wojciech R. Wiza

Copy editors
Michał Kaczmarek, Elżbieta Masztalerz

316187

BIBLIOTEKA AE w Poznaniu

The papers are published as presented by Authors

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Poznań 2008

ISBN 978-83-7417-361-2

POZNAŃ UNIVERSITY OF ECONOMICS PUBLISHING HOUSE
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www.wydawnictwo-ae.pl, e-mail: info@wydawnictwo-ae.pl
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Printed by: Studio Reklamy, tel. 061 832 43 31, www.drukwpoznaniu.pl

P. 2008. 987/5

Welcome to the joint Virtual Goods and ODRL Workshop

October 16 – 18, 2008

Poznań, Poland

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EDITOR'S NOTE

1. Welcome to the real world of virtual goods

The digital world has become an everyday experience of the real world. And so have digital objects like home-pages, e-mails, travel schedules, e-tickets, e-libraries, and so many others. Virtual goods, like real goods, have value: users demand them, developers build them, and services offer them. Many are well paid for, others are free, just as in the real world. However, many things are different between virtual and tangible goods. For example, why do we pay for paper dictionaries but require that Internet dictionaries are free? Why do we "own" music-CDs and are free to resell them, but we have only restricted usage rights on music-files? Why do we appreciate printed books as a higher-

value publication form than electronic proceedings? Why do we trust insecure paper-mail ballots for elections, but distrust electronic voting with blind signatures? Why do we trust photocopied contracts sent by fax more than digitally signed contracts sent by e-mail?

The real world of virtual goods is a new world, just about 15 years since the creation of the Web. We do not yet fully understand how the virtual world really works or, the other way round, how the virtual world should be designed better in order to be a safe part of the real world. Understanding the virtual world, and designing a better virtual world, this is the aim of this 6th International Workshop for Technical, Economic and Legal Aspects of Business Models for Virtual Goods incorporating the 4th International Open Digital Rights Language (ODRL) Workshop, 2008 hosted by the Poznań University of Economics in Poland. This is the second joint workshop, in that the two communities of the virtual goods workshop and the open digital rights language initiative (ODRL) are happy to continue their successful amalgamation started last year in Koblenz in order to drive new ideas across ecommerce and digital rights management with a balanced focus on the technical, social, and business needs. We welcome the submitted research contributions from different fields, including computer sciences, economics, business, law, human sciences and other relevant disciplines.

2. Content of the book

The book is organized along the paper sessions of the workshop. The first section presents two articles on "Rights and Services". In a truly international cooperation between The Netherlands, Canada, Italy and Australia, G.R. Gangadharan, Michael Weiss, Vincenzo D'Andrea and Renato Iannella have studied the role of intellectual rights in so-called Mashups: mashups are applications that combine data and services provided through several open APIs, allowing the quick creation of custom applications by users. In the other paper, Alban Gabillon and Patrick Capolsini from the Université de la Polynésie Française, Tahiti, have created an ODRL extension to accommodate licensing for geographic data created by The OpenGIS® Web Map Service. This is a piece of design research for an application in the real world.

In the second section two papers present two very different worlds of "Organizing Virtual Business". Patrick Aichroth, Jens Hasselbach, Daniel Thommes, and Matthias Ullrich from the Fraunhofer Institute IDMT Ilmenau, Germany, introduce incentives for the purchase and re-distribution of virtual goods by a technology which they call "freebies". Maria Śliwińska from the International Centre for Management Systems & Services, Torun, Poland, on the other hand, studies the virtualization of museums and other cultural heritage

institutions. She looks critically on a couple of international initiatives on virtual collections of cultural institutions supported by the European Commission.

In the third section three papers deal with the "Technology for Digital Objects". Mario Kubek from the Technical University of Ilmenau and Hans Friedrich Witschel from the University of Leipzig, Germany, present a system for automatic query expansion in a browser-based environment. Their system supports the search for text documents in the World Wide Web by local text corpora residing on the user's computer. This helps to consider the existing local knowledge stored on a computer before a possibly imprecise query is sent. In the second technology paper in this section, Maik Schott, Jana Dittmann, Christian Krätzer, and Andreas Lang from the Otto-von-Guericke University Magdeburg, together with Claus Vielhauer from the University of Applied Sciences Brandenburg, Germany, propose an approach how to enforce the integrity and authenticity of digital objects for long-term preservation in a rule-oriented data systems (iRODS) grid infrastructure. They start their approach by an extension of the well-known Clark-Wilson integrity model. The technology section is completed by a third paper by Patrick Wolf, Martin Steinebach, and Sascha Zmudzinski from the Fraunhofer Institute SIT Darmstadt, Germany: They design an access layer for different digital watermarking technologies and thus provide "adaptive security for virtual goods" on top of abstract watermark properties.

The fourth section is devoted to the "Economy of Virtual Goods". This topic is addressed by two different application areas. Philip and Tobias Reisberger from the European Business School, Oestrich-Winkel, and Susanne Strahringer from the Technical University Dresden, Germany, look into the economy of virtual worlds such as Second Life and Entropia Universe. They introduce a criteria system which allows them to measure the economic success in such virtual worlds. In the other paper, Marek Niezgódka from the University of Warsaw, Poland, looks into the economy of the publication of scientific research work. He presents results of the Virtual Library of Science project performed in Poland, which has the perspective to spread across several European countries.

The fifth section collects three papers under the bracket of "Digital Content Protection". First, Grzegorz Szewczyk from the Central Ostrobothnia University of Applied Sciences, Kokkola, Finland, introduces a cryptographic system of "dynamic ciphers" which has the potential to be particularly useful for the protection of long lasting contents. Next, Helge Hundacker from the University Koblenz-Landau, Germany, introduces and compares different methods to discover illegal usage of digital content. This area is called "digital forensics". Finally, Alapan Arnab and Andrew Hutchison from the University of Cape Town, South-Africa, create a criteria framework which allows to

measure the quality of content protection systems. They benchmark four different DRM systems (Apple iTunes, Microsoft Windows Media, Microsoft Rights Management Service, and Adobe Document Security) against this framework, and identify some of the universal problems in current DRM systems.

The five sections are completed by three invited talks, which are presented here by abstracts of the talks, and biographic notes of the speakers.

Acknowledgements

A great number of people helped us to realize the workshop and this book – sometimes virtually, but more often in reality. First, we thank our authors who contributed their ideas and came from all over the world to Poznań. Likewise, we thank the workshop participants to share their insight and to improve the understanding of the problems presented by the authors of the papers.

We also thank the members of the international program committee who served in the review process. Special thanks go to our keynote speakers Renato Iannella on the policy-aware Web, Kazimierz Krzysztofek on the challenges of Web 2.0, and Leonardo Chiariglione on his Digital Media Project. Beyond his role as invited speaker Renato Iannella is a driving force of the unification of the virtual goods and ODRL communities.

The workshop would not have been possible without the help of our great local organization team: Elzbieta Masztalerz and Prof. Wojciech Cellary from the Poznań University of Economics. Wojciech Cellary is also general chair of this workshop and co-chair of our IFIP working group 6.11 "E-Commerce". We also appreciate the continuous support of the general workshop co-chair Dr. Jürgen Nützel from the 4FriendsOnly.com Internet Technologies AG, Ilmenau. He has not only maintained the Web site www.virtualgoods.org, but he has also organized the real registration and payment through his virtual Paybest service. Helge Hundacker and Christian Glass in Koblenz have helped to organize the EasyChair review system and finally to bring the articles together in the right format.

We are looking forward to delivering this book to the workshop in the first place, and then, to the public scientific community.