

Vito Perrone

Table of Content

1.	Current position and referees.....	2
2.	Resume.....	3
	Personal Information	4
	Education/Qualifications	4
	Research and Professional Experience	4
	Awards and Grants	5
	Teaching Experience	5
	Other Academic Activities	6
3.	Research Interests.....	7
	Software Engineering and Usability for Large Scale Biomedical System	8
	Design Methods for Multi-Channle	9
	Other research activities	10
4.	Publications.....	11

1. Current position and referees

Current position details:

Research Fellow at the Department of Computer Science, University College London where I am a member of the Software System Engineering group. In UCL I am employed as requirements engineer and architecture designer in a project concerning the analysis and design of an informatics platform whose aim is to integrate data and services related to cancer research in the UK. The project is carried out in cooperation with the NCRI (National Cancer Research Institute). My supervisor is Prof. Anthony Finkelstein. Other duties include teaching support in the Meng and MSc modules “System Requirements Engineering” and “Software Engineering”.

Referees:

- Prof. Anthony Finkelstein (current employer): Professor and Head of the Department of Computer Science, University College London (UK).
e.mail address: a.finkelstein@cs.ucl.ac.uk
Office Telephone: +44 (0)20 7679 7293
- Prof. Paolo Paolini (former employer): Professor at the Department of Electronic and Information, Polytechnic of Milan (Italy) and Professor at the Faculty of Communication Science, University of the Italian Switzerland (USI), Lugano (Switzerland)
e.mail address: paolini@elet.polimi.it
Office Telephone: +39 02 2399 3520 (Secretary +39 02 2399 3623)
- Prof. Franca Garzotto (PhD tutor and research collaborator): Associate Professor at the Polytechnic of Milan – Department of Electronic and Information.
e.mail address: garzotto@elet.polimi.it
Office Telephone: +39 02 2399 3505

2. Resume

PERSONAL INFORMATION

Date and Place of Birth: 9th May 1975, Galatina (LE), Italy

Citizenship: Italian

Residence: 102, Alpha Grove, London, E14 8PG, UK

Department of Computer Science

University College London

Gower Street

London WC1E 6BT, UK

Office:

fax: +44 20 7387 1397

email: v.perrone@cs.ucl.ac.uk

web: <http://www.cs.ucl.ac.uk/staff/v.perrone>

EDUCATION/QUALIFICATIONS

2004 **PhD in Information Engineering (computer science)**, Department of Electronic and Information, Polytechnic of Milan (Italy). Major thesis title *Conceptual modelling for Multi-Channel Web applications*, supervisor: Prof. Paolo Paolini (Polytechnic of Milan). Minor thesis title: *A Wish list for Requirements Engineering for Nowadays Information Systems*, supervisor: Prof. Chiara Francalanci (Polytechnic of Milan). (March 2001 – September 2004).

2001 **Chartered Engineer**, Institution of Engineers, Italy. (January 2001).

2000 **Laurea Degree in Information Engineering**, Department of Innovation Engineering, Engineering Faculty, University of Lecce (Italy). Thesis title: “User Centered Design for Web applications”. Supervisors: Prof. Paolo Paolini (Polytechnic of Milan and University of Lecce). **Vote: 110/110 cum laude.**

Professional Courses

2005 **Introduction to Bioinformatics**, Bloomsbury Centre for Bioinformatics, London. (December 2005, one week full-time).

2005 **From research results to business solutions: how to start a startup**, MIP Business School, Polytechnic of Milan, Italy. (March 2005 to May 2005).

RESEARCH AND PROFESSIONAL EXPERIENCE

2005 – Present **Research Fellow (post-doc)**, Software System Engineering Group, Department of Computer Science, University College London. Supervisor: Prof. Anthony Finkelstein.

Projects: Platform Reference Model (PRM), in cooperation with the NCRI (National Cancer Research Institute).

2004 – 2005 **Senior Researcher (post-doc) and Project Manager**, HOC (Hypermedia Open Center) laboratory, Department of Electronic and Information, Polytechnic of Milan. Supervisor: Prof. Paolo Paolini.

Projects: DICE (Distributed Architecture for Cultural hEritage), ORA (Oral Access), Genesis-D (Modelling Methods and Tools in the Environmental domain).

2001 – 2004 **Junior Researcher (PhD student)**, HOC (Hypermedia Open Center) laboratory, Department of Electronic and Information, Polytechnic of Milan. Supervisor: Prof. Paolo Paolini

Projects: UWA (Ubiquitous Web Applications).

2000 – 2005 **Part-time Chartered Engineer and Professional Teacher.** Consulting contracts as requirements analyst, designer and usability expert for multi-channel Web applications, for large/medium ICT firms in Italy. Lecturer of Web design, software modelling with UML,

Usability, and Web development with MS.ASP in several professional courses for ICT firms or professional schools.

1999 – 2000 **Web Developer**, Vecomp Software S.r.l., Verona (Italy).

AWARDS AND GRANTS

- 2006** CR-UK Pilot Project Award (Principal Investigator). The award will fund the pilot project *Information Overload in Cancer research: improving usability by user interaction patterns* in cooperation with the Department of Oncology of UCL. GBP 20,000. January 2007 – June 2007.
- 2004** Gruppo CM s.p.a. (Co-Investigator). Research Grant for defining methodological approach and architecture of a multi-channel Enterprise Information Portal Generator. EUR 30,000. May 2004 – December 2004.
- 2001** Italian Research and Higher Education Council. Research studentship to support a three-year PhD program. EUR 35,000. March 2001 – May 2004.

TEACHING EXPERIENCE

Academic Teaching – Lecturer

- 2004/2005** *Fundamentals of Informatics I*, Department of Management Engineering, Polytechnic of Milan, (contract lecturer, 52 hours).
Project of Web Design, Department of Electronic and Information, Polytechnic of Milan, (contract lecturer, 35 hours).
- 2003/2004** *Project of Web Design*, Department of Electronic and Information, Polytechnic of Milan, (contract lecturer, 30 hours).
- 2000/2001** *Fundamentals of Informatics II*, Department of Electronic and Information, Polytechnic of Milan, (contract lecturer 30 hours).

Academic Teaching – Teaching Assistant

- 2006/2007** *System Requirements Engineering*, Meng and MSc level, Department of Computer Science, University College London, (25 hours).
- 2005/2006** *Software Engineering*, MSc level, Department of Computer Science, University College London, (20 hours).
System Requirements Engineering, Meng and MSc level, Department of Computer Science, University College London, (25 hours).
- 2002/2003** *Web Application Design (Informatica Grafica II)*, Department of Electronic and Information, Polytechnic of Milan, (20 hours).
Human Computer Interaction (Informatica Grafica I), Department of Electronic and Information, Polytechnic of Milan, (20 hours).
- 2001/2002** *Web Application Design (Informatica Grafica II)*, Department of Electronic and Information, Polytechnic of Milan, (20 hours).
Human Computer Interaction (Informatica Grafica I), Department of Electronic and Information, Polytechnic of Milan, (20 hours).
Human Computer Interaction (Web Design – Laboratorio di Sintesi Finale), Industrial Design Faculty, Polytechnic of Milan, (15 hours).
- 2000/2001** *Web Application Design*, Department of Electronic and Information, Polytechnic of Milan, (20 hours).
Web Design and Human Computer Interaction, Department of Innovation Engineering, Engineering Faculty, University of Lecce (Italy), (25 hours).
Theory and Techniques for the New Media, Communication Science Faculty, University of Lugano, (tutor – 20 hours).

Professional Teaching

- 2004** *User Centered Design of Multi-channel Web applications.* Gruppo CM spa, Rome, (3 days)
- 2003** *Requirement Analysis and human-computer interaction design for multi-channel Web applications in the tourist field.* ENCO s.r.l., second level master “Project Management for cultural and natural heritage (E.Cu.B.A.), (3 days).
- Human-computer interaction design for multi-channel Web applications in the cultural heritage field.* CEFRIEL (Center of Excellence For Research, Innovation, Education and industrial Labs partnership), second level master DICE (Distributed Infrastructure for Cultural hEritage), (3 days).
- Design of Multimedia applications in the museum field.* Selfin spa, Napoli (an IBM Italia Company), second level master of the SIS INF. Museum section, (2 days).
- Multi-Channel Design of e-banking applications.* Bank 121, Lecce (Italy), (1 day)
- Multi-Channel Design of e-banking applications.* Area Bank, Milan (Italy), (1 day)
- 2002** *Web application development using MS.ASP.* Teachers in several courses at the professional instruction institute IFOA srl, Milano.

OTHER ACADEMIC ACTIVITIES

Program Committee and/or Reviewer for Conferences or Journals

- The 8th IEEE International Symposium on Web Site Evolution, WSE 2006
- Information Systems Journal – Special issue on “Empirical Studies in Systems Analysis and Design”, 2005
- Journal on Studies in Communication Sciences – Special Issue on User Centered Design, 2005
- ACM Symposium on Applied Computing (SAC 2004)
- Volume VII of the Annals of Cases on Information Technology (ACIT), 2004

Research Proposal Writing (accepted):

- ORal Access (ORA), Italian Research Project. (2004-2006)
- System Wide Access for Cultural Heritage and Tourism, Italian Research Project (2004-2006)
- Technological Knowledge and Localised Learning (TELL), European Research Project within the Socrates/Minerva program. (2004-2006)

Organization of technology transfer seminars:

- *Designing Multi-Channel Applications.* Seminar addressing Italian Companies operating in the ICT field. DEI, Polytechnic of Milan. March 28 – 2003.
- *Multi-Channel Web Applications: the W2000 hypermedia model.* Seminar addressing companies operating in Internet related activities in southern Italy. University of Lecce May 16,17,18 – 2002.

Talks in Seminars or Workshops as Invited Speaker

- *Developing an Integrative Platform for Cancer Research: a Requirements Engineering Perspective.* In the Sosftware System Engineering Group Seminars, Computer Science Department, University College London (UK), 11 September 2006.
- *The Platform Reference Model for the Cancer Research in UK.* In the CancerGrid Workshop, Oxford (UK) 25-27 January 2006.
- *Requirements analysis and design for multi-channel web applications.* In the workshop organized by AREA Banck s.p.a, 5 June 2003.
- *Designing web pages for multi-channel applications.* In the workshop “Designing multi-channel applications”, Polytechnic of Milan, 28 March 2003.

- *Introducing UWA in an industrial environment: Debit Card Management for Banca121 with UWA.* In the workshop “Ubiquitous Web Applications: A new UML based framework for the Web”, Siemens Forum Vienna, 11 November 2002.
- *Design examples in e-business and e-banking.* In the workshop “Ubiquitous Web Applications: A new UML based framework for the Web”, Siemens Forum Vienna, 12 November 2002.
- *Modelling multi-channel web applications with W2000.* In the seminar “Modelling web applications with W2000 and usability analysis with MiLE”, University of the Italian Switzerland (USI), Lugano, 17 October 2002.
- *Designing multi-channel web applications: the W2000’s approach.* Talk given within a workshop organized by the University of Lecce (Italy) for Web companies in Southern Italy, 16 May 2002.
- *The UWA approach for designing multi-channel applications.* Talk given within a seminar organized by the ICT division of Banca 121 s.p.a. for the bank management, Lecce (Italy), 20 February 2002.

3. Research Interests

My research interests span the software engineering and human computer interaction fields and have a sharp orientation towards the applicability of research results in the industrial setting. I am particularly interested in the development of large scale *information* and *interaction intensive* systems. These systems are characterized by the need of delivering a large amount of information, produced in distributed sources, to a variety of users. Several are the research challenges which need to be addressed when dealing with these systems. Sources are usually heterogeneous as for system, structural, syntactic and semantic concerns. Interoperability amongst sources and integration of information have the potentiality of increasing the overall value of the system. Finally, the success of such systems ultimately lies on how effectively users can achieve their goals and fulfil their tasks by interacting with the system. In this context my research has focused on the analysis of such systems from the user and architectural points of view. My research is equally distributed between defining innovative engineering solutions in critical application domains and defining or extending engineering methods to cope with the challenges posed by on-the-edge applications.

Four main drivers guide my research. It is *application driven* in that cases studies or real applications ground the research activities I am usually involved in. I have been working in several application domains such as biomedicine, cultural heritage, online banking and finance, and public services. It is *user oriented* in that I work on solutions that aim to maximize the effectiveness from the user point of view. I also tend to evaluate the results of my research in terms of how effectively my proposals can tackle users needs, where user, in this context, are either the target of an innovative system or ITC professionals who could use a new software engineering method in their daily work. My research is also *industry oriented*, in that carefully grounding and validating of research in the reality and practical needs of the industrial setting is a high priority for me. In this light I always pursue the involvement of real practitioners in the analysis of new solutions and prefer lightweight solutions rather than complex and heavy ones. Moreover, ideally my research should always be validated rigorously in practice through collaboration and consultancy with industry. Finally, from the characteristics of my research described above it is clear that thorough analysis and application of engineering principles and methods have to be intertwined with discussion with a variety of people with very different backgrounds. This entails the need for a *holistic* and *multidisciplinary* approach to research, the last characterizing driver.

SOFTWARE ENGINEERING AND USABILITY FOR LARGE SCALE BIOMEDICAL SYSTEMS (FOR CANCER RESEARCH)

I have recently started to work in the biomedical domain in the context of a project in cooperation with the NCRI (National Cancer Research Institute) and I am currently cooperating with caBIG (the most important network supporting cancer research) and with the NASA Jet Propulsion Laboratory in the US. My research in this field focuses on systems whose goal is to enable effective integrated access to data provided by distributed heterogeneous biomedical resources. In this context, I am concerned with issues related to requirements analysis, semantic modelling for data and services integration, impact of requirements in the architecture design (and vice versa), usability analysis and user centre design. My research is grounded in the biomedical field but I believe that most of the problems I am addressing have a broader scope and results can have impact on the general software engineering community.

DETAILED DESCRIPTION

Heterogeneity in the biomedical field encompasses system, structure, syntax and semantic concerns. My research focuses on the last aspect and aims to define models, processes and architectures for effective semantic integration. I am analyzing this problem from several perspectives including the resource curators, the various types of users (scientific researchers, medical researchers, developers, etc.) and the integrative system. From the integrative system point of view, the existence in the biomedical field of several established domain ontologies is a characterizing aspect. The system should enable the use of such ontologies rather than defining its own domain ontology. Works on ontology composition by using upper ontologies are already being carried out in the semantic web community and there are some applications in the bioinformatics field. I am interested in analyzing the impact, on the system architecture, of using externally defined and managed ontologies, focusing on consistency and scalability aspects. In particular, I am working on the definition of architectural styles and interoperability process requirements. From the

biomedical resource point of view, lightweight integration processes are essential to cope with low budgets and lack of solid data and service integration and development skills. In this scenario, model driven approaches seem to be particularly suitable and I am investigating how to adopt effectively model driven architectures and processes in the biomedical field. One of the outcomes of my research in the cancer research field has been the identification and preliminary definition (as proof of concept) of a *reference model* (RM) to guide the integration process [C1][R1]. The RM is a high level domain model defined to address widespread integration of resources available in the various sub-domains related to cancer research. This model is composed by coarse-grain concepts that may be shared across sub-domains and provides links towards a number of fine-grain semantic concepts available in existing domain ontologies. The RM also plays a pivotal role in the model driven approach since it provides a guide in the definition of the resources' object models and acts as harmonizer for the different models to be shared. I am currently cooperating with a group in the US (caBIG Large Scale Harmonization Group) within the caBIG project whose goal is to define an overarching model (which has been named Backbone model), which is similar to reference model object of my research, for the caBIG community.

Concerning architectural aspects, such systems generally adopt the grid computing model (or in particular data grid model). I am investigating, in collaboration with a group of researchers at the NASA Jet Propulsion Laboratory in the US, how requirements and architectural choices and styles can be related with one another in the context of biomedical grids.

Concerning the user perspective, as the amount of data and services offered grows up, users may experience an overload of information for which it is hard to assess certainty, authority and consistency. This may result in unexpected information poverty. From this perspective, I am analyzing the use of user knowledge in cooperative communities to improve effectiveness in data retrieval and use. In particular, I am to the integration of user knowledge in the semantic layer and on user interface models for biomedical integrative systems which support elicitation and collection of user knowledge. Currently a prototype user interface for the NCRI Platform has been developed on the basis of this model. The prototype has been used with a sample of users and has shown that the knowledge collected can be used by the system to make data and service retrieval and use more efficient.

Finally, the analysis on the field carried out in the project has shown that researchers often face serious problems in using web interfaces of existing biomedical repositories. In this context I am investigating, in a pilot project in cooperation with the UCL oncology department, usability aspects of biomedical repositories and trying to use *user interaction patterns* to provide easy to implement solutions to improve the usability of repositories used in cancer research.

DESIGN METHODS FOR MULTI-CHANNEL WEB APPLICATIONS

I started to conduct research about this topic in the HOC laboratory at the Polytechnic of Milan during and after my doctoral studies. In this research I have collaborated with researchers in the Tec-Lab of the Faculty of communication science at the University of Lugano (Switzerland). The research has been rooted in one of the first and most well known design method for hypermedia and web applications proposed in the early '90s, namely HDM (Hypermedia Design Method). The objectives of my research have been the extension of such method to address new issues such as *multi-channel*, *context awareness*, and *personalization* and to investigate what factors influencing the acceptability of design methods in the industrial setting. As main result, I have shown that non functional requirements for design methods play a crucial role in the acceptability but are often overlooked when a new method is defined or an existing one extended. A core set of non functional requirements of design methods for web application have been identified in a number of studies on the field [J1]. Using as analogy the design of an information system, studies on the impact of NFRs on architectural components have been used to analyze and define the design method architecture. The resulting proposal is made up of two design methods, a flexible design process and a CASE tool based on Eclipse. Both the design methods, namely IDM and EWOOD [C3][C5], root in HDM and address the design of multi-channel web applications respectively to support the requirements analysis and implementation activities. The proposed approach has been evaluated both in industry [J2][C4][C8] and in academic courses and compared with previous similar studies conducted on HDM showing that encouraging improvements have been achieved.

DETAILED DESCRIPTION – INDUSTRIAL ACCEPTABILITY

Several studies on the acceptability of design methods conducted in the late '90s and early 2000s have shown that current design methods proposed in academia have had poor impact on the industrial community. In my research I have spent a considerable amount of effort in addressing this problem. First I have organized and conducted an empirical study to analyze what factors influence on the *acceptability of a design method*. The study has involved several ICT firms operating in the web systems development market. A questionnaire and several interviews and focus groups have been used to elicit acceptability requirements. This has led to the identification of a set of non functional requirements for web design models, covering categories such as *usability, learnability, flexibility, portability*, etc., that can play an important role in the definition of models closer to the industrial needs [J1][C12]. Second, I have pointed out that researchers (both in academia and industry) generally focus, even if implicitly, on the identification and analysis of functional requirements of design methods. Methods proposed in the current literature generally lack of systematic description of what requirements have been addressed in their definition. Generally, only generic considerations about functional aspects are reported and evaluation (when provided) is also mainly based on functional aspects. As a result of my research, I, in collaboration with researchers in the Tec-Lab of the Faculty of communication science at the University of Lugano (Switzerland), have used these requirements to define a complete approach to cope with the requirements analysis and design of web applications[C3][C5]. The approach has been evaluated both with practitioners [J2][C4][C8] and in the context of web engineering courses at the Polytechnic of Milan showing that encouraging results have been achieved. The core part of this approach consists of two design methods, namely IDM and E-WOOD, which address conceptual design of multi-channel, personalizable web applications and are used to bridge between requirements and software specifications. Both methods derive from HDM in that they share the HDM's meta-model, but their definition has taken systematically into account the acquired NFRs. Software engineering techniques for analyzing the impact of NFRs on systems have been adapted by defining an analogy between the system architecture and the method architecture. A holistic perspective has been adopted to identify the method architecture and support documentation and CASE tools have been considered as components of the model architecture. The different components making up the method architecture (e.g. semantic concepts, design process, notation, documentation, tools, etc.) have been defined taking into account the NFRs for the different stakeholders involved from requirements analysis to the development process [C3].

DETAILED DESCRIPTION – MULTI-CHANNEL, PERSONALIZABLE, CONTEX-AWARE DESIGN

I have analyzed the requirements for addressing the design of multi-channel, personalizable, context-aware web applications and proposed a UML extension (E-WOOD) [C5] of HDM and a process. The concepts of *customization rule, channel* and *user* have been added to the HDM meta-model and a number of relationships with HDM concepts defined. Customization rules enable designer to achieve both *semantic equivalence* and *semantic enhancement*. For the former, the designer defines “the same” *user experience* customizing it on the basis of the channel and user characteristics. For the latter, the designers exploits the peculiarities of each channel (access context, device features, etc.) in order to provide an enhanced user experience for each relevant channel/user profile combination and the model primitives (and support tools) are used to assure consistence. The proposed process starts from the application's requirements, elicited taking into account the multi-channel concerns, and enables the designers to device the design and its customization for each channel. The process provides two possible strategies to cope with the customization design: *macro* and *micro* customization. These strategies cope with the two most common adaptation situations, that is, respectively, when the designs for different channels/user profiles (or groups of) differ significantly and when only minor design adaptations are required [C11].

OTHER RESEARCH ACTIVITIES

Besides the two main research strands described above, I have also conducted research in a number of other domains mainly in the context of research projects. The main results achieved in these research activities are briefly summarized in the following.

DESIGN AND USABILITY ANALYSIS OF WEB BUSINESS PROCESSES

As an extension of my research concerning the design of web application, I have also analyzed the integration between business processes and hypermedia specially addressing usability issues. The main result

of my research in this field has been the definition of a usability evaluation (by inspection) method called PUW (Process Usability on the Web) [C7]. The method has been successfully used in several consulting projects.

REQUIREMENTS ANALYSIS FOR COTS (COMMERCIAL OFF THE SHELF) BASED SYSTEMS

The study has been performed as minor research during the PhD program. Using COTS packages for building up an information system requires a redefinition of the relationship between the requirements and design and implementation activities. COTS availability, customizability, price, kind of license and other factors requires different trade-offs to be considered in the requirements analysis. From the analysis and comparison of the main research contributes concerning the requirements analysis for such systems, I have defined a *Wish List* of desirable features that a hypothetical method should satisfy in order to address all the relevant issues. The wish list has been also matched against the current methodologies in order to define the satisfaction rank of each of them [C10].

INTERACTION DESIGN AND DIGITAL LIBRARIES (IN THE CULTURAL HERITAGE FIELD)

I have conducted research on this topic in the context of the DICE (Distributed Infrastructure for Cultural hEritage) project. The main objective of my research has been to investigate the relationship between web design concepts and the typical components of digital libraries in a federated setting. I have defined an *access model* to design the user interaction aspects of a federated digital library and proposed a formal mapping (using meta-modelling approaches) between interaction concepts and representation models such as ontologies, taxonomies, etc [C6][C9]. The results of this research have been used to design the DICE's architecture.

4. Publications

Refereed International Journals and Book Chapters

- [J1] Franca Garzotto, *Vito Perrone*, “Industrial acceptability of design methods: an empirical study”. To appear in a forthcoming issue of the Journal of Web Engineering, Rinton Press (Princeton, New Jersey), ISSN: 1540-9589 (draft available on www.cs.ucl.ac.uk/staff/v.perrone/)
- [J2] *Vito Perrone*, Davide Bolchini, “Designing Communication Intensive Web Applications: experience and lessons from a real case study”. Journal of Computer Science and Technology, Special Issue on Software Requirements Engineering Vol. 5 - No. 2 - July 2005 - ISSN 1666-6038
- [J3] R. Paiano, M. Leonardo, *Vito Perrone*: “Publishing Model for Web Applications: A User-Centered Approach”, Book Chapter in *Information Management: Support Systems & Multimedia Technology*, Idea Group Inc. book, edited by Dr. George Ditsa (ISBN: 1931777411), April 1, 2003.

Refereed Conferences and Workshops

- [C1] *Vito Perrone*, Anthony Finkelstein, Leah Goldin, Jeff Kramer, Helen Parkinson, Fiona Reddington, “Developing an Integrative Platform for Cancer Research: a Requirements Engineering Perspective”. In Proc. of the fifth E-Science All Hands Meeting, pages 93–100, 18th - 21st September 2006, Nottingham. S. J. Cox, editor, NeSC 2006, ISBN 0-9553988-0-0
- [C2] *Vito Perrone*, Anthony Finkelstein, Leah Goldin, Jeff Kramer, Helen Parkinson, Fiona Reddington, “Software Engineering meets Cancer Research: Enabling Interoperability of Data and Services”. Second NCRI Conference, 8 – 11 October 2006, Birmingham, UK
- [C3] *Vito Perrone*, Davide Bolchini, Paolo Paolini, “A Stakeholders Centered Approach for Conceptual Modeling of Communication-Intensive Applications”. In proceedings of the ACM 23rd International Conference on Design of Communication SIGDOC2005, Sept. 21-23, 2005; Coventry, UK
- [C4] *Vito Perrone*, Davide Bolchini, Andrea Rastellini, Luigi Dragone, “Shaping Requirements for Institutional Web Applications: Experience from an Industrial Project”. In proceedings of the 13th IEEE Requirements Engineering Conference 2005, August 29th – September 2nd 2005 (Paris, France).
- [C5] *Vito Perrone*, Luca Mainetti, Paolo Paolini, “A UML Extension for Designing Usable User Experiences for Web Applications”. In proceedings of the V International Workshop on Web Oriented Software Technologies (IWWOST'05), June 13th, 2005 (Porto, Portugal) – in conjunction with CAISE'05.
- [C6] *Vito Perrone*, Sebastiano Colazzo, Chiara Bramani, “DICE: a new approach for Integrating Distributed Heterogeneous Information Sources for Cultural Heritage”. In proceedings of EVA 2005, the International Conference of Electronic Imaging and the Visual Arts, Florence (Italy), 14-18 March 2005
- [C7] Franca Garzotto, *Vito Perrone* “Systematic Usability Inspection of Web Based Business Processes”. In proceedings of the International Conference on Human-Computer Interaction HCII 2005, 22-27 July – Las Vegas, Nevada (USA)
- [C8] *Vito Perrone*, Davide Bolchini, “Designing Communication Intensive Web Applications: a case study”. In proceedings of the VII Workshop on Requirements Engineering (WER 2004), 9-10 December, 2004 - Tandil, Argentina. Selected to be included in a special issue on Requirements Engineering of the Journal of Computer Science and Technology (JCS&T - ISSN 1666-6038) (to appear)
- [C9] Sebastiano Colazzo, *Vito Perrone* “Integrating Distributed Heterogeneous Information Sources for Cultural Heritage: the DICE approach”. In proceedings of the Third International Workshop on Presenting and Exploring Heritage on the Web - PEH'04, co-located with DEXA 2004, 30 August - 3 September 2004, Zaragoza, Spain
- [C10] *Vito Perrone* “A Wish List for Requirements Engineering for COTS-based Information Systems”. In Proceedings of the International Conference on COTS-Based Software Systems (ICCBSS) 2004, 1-4 February, Redondo Beach, CA USA.
- [C11] *Vito Perrone*, Paolo Paolini “An Approach for Designing Ubiquitous Web Applications: A Case Study”. In Proceedings of IASTED International Conference on Communications, Internet and Information Technology (CIIT 2003), November 17-19, 2003, in Scottsdale, AZ, USA.

- [C12] Franca Garzotto, Vito Perrone “On the Acceptability of Conceptual Design Models for Web Applications”. In Lecture Notes in Computer Science, Volume 2814, Sep 2003, Pages 92 – 104 (ER’03 International Workshop on Conceptual Modeling Quality, October 2003 , Skokie, Illinois, USA)
- [C13] Franca Garzotto, *Vito Perrone* “Integrating User Operations in Multichannel Hypermedia”. In Proceedings of HT’03 The fourteenth ACM conference on Hypertext and Hypermedia, August 2003, Nottingham UK.
- [C14] Franca Garzotto, *Vito Perrone* “Conceptual Modelling of Services in Multi/Cross Channel Web Applications”. In Proceedings of SEBD ’03, June 2003, Cetraro, Italy
- [C15] Damiano Distanto, *Vito Perrone*, M. A. Bochicchio “Migrating to the web a legacy application: the sinfor project”. Proceedings. Fourth IEEE International Workshop on Web Site Evolution, 2002.
- [C16] Damiano Distanto, Vito Perrone “A Methodological Approach for the Migration of Legacy Data Intensive Applications to the Web” Telec 2002 (Telecommunication, Electronics and Control), Santiago de Cuba, Cuba, USA, July 17-19, 2002.
- [C17] Roberto Paiano, Leonardo Mangia, *Vito Perrone*: “Modelling Web Application: the Conceptual Page Design”. In proceedings of IRMA 2002 (Information Resources Management Association International Conference), Seattle Washington, USA, May 19-22, 2002.
- [C18] UWA Consorsium “Ubiquitous Web Applications”, in proceedings E2002 (e-Business and e-Work) Conference, October 16-18 Prague
- [C19] UWA Consorsium “The UWA Approach to Modeling Ubiquitous Web Applications” in proceedings IST-Mobile & Wireless Telecommunications Summit 2002, Thessaloniki – Greece, June 17-19, 2002

Technical Reports

- [R1] A. Finkelstein, L. Goldin, J. Kramer, V. Perrone: “System Requirements for the NCRI Platform”. Available on www.cs.ucl.ac.uk/CancerInformatics.
- [R2] A. Finkelstein, L. Goldin, J. Kramer, V. Perrone: “User Requirements for the NCRI Platform”. Available on www.cs.ucl.ac.uk/CancerInformatics.
- [R3] Davide Bolchini, *Vito Perrone*: “Analisi dei Requisiti e Progettazione del Sito Istituzionale del Consiglio Superiore dei Lavori Pubblici – Ministero delle Infrastrutture e dei Trasporti”. Technical report written for the Gruppo CM spa company.
- [R4] Andrea Balconi, Luca Mainetti, *Vito Perrone*: “An Industrial Methodology for Web Applications: Logical Design”. Genesis-D project, deliverable D2.3, May 2005. Available on www.elet.polimi.it (perrone)
- [R5] Andrea Balconi, Luca Mainetti, *Vito Perrone*: “An Industrial Methodology for Web Applications: Conceptual Design”. Genesis-D project, deliverable D2.2, December 2004. Available on www.elet.polimi.it (perrone)
- [R6] Andrea Balconi, Luca Mainetti, *Vito Perrone*: “Guidelines and Principles for an Industrial Methodology for Web Application Design”. Genesis-D project, deliverable D2.1, December 2004. Available on www.elet.polimi.it (perrone)
- [R7] Chiara Bramani, Sebastiano Colazzo, Nicoletta Di Blas, *Vito Perrone*: “Progettazione e descrizione dei contenuti del dimostratore prototipale” (Design and description of the first DICE’s pilot communities). DICE project, deliverable D5, February 2004. Available on www.progettodice.it
- [R8] Chiara Bramani, Sebastiano Colazzo, Nicoletta Di Blas, Barbara Di Santo, *Vito Perrone*: “Contenuti dei dimostratore prototipale e criteri di valutazione e validazione” (Design of the pilot communities’s contents and validation and evaluation criteria). DICE project, deliverable D6.1, February 2004. Available on www.progettodice.it
- [R9] Sebastiano Colazzo, Vieri Del Bianco, Alfonso Fuggetta, Luigi Lavazza, Paolo Paolini, *Vito Perrone*, Gianluca Ripa, Emma Tracanella: “Design dell’Infrastruttura DICE” (Design of the DICE Infrastructure). DICE project, Deliverable D2, October 2003. Available on www.progettodice.it
- [R10] Fabiano Cattaneo, Vieri Del Bianco, Alfonso Fuggetta, Paolo Paolini, Gianni Pelosi, *Vito Perrone*, Gianluca Ripa: “Specifiche dettagliate dell’infrastruttura DICE” (DICE project: Detailed Specification). DICE project, Deliverable D1, June 2003. Available on www.progettodice.it

- [R11] M. Bochicchio, L. Pitotti, *Vito Perrone*: “Requirements and Design Specification for Bank121’s pilot application (manually produced)” Deliverable D11 European Project UWA, January 2002. Available on www.uwaproject.org
- [R12] L. Baresi, F. Garzotto, M. Maritati, P. Paolini, *Vito Perrone*, “Hypermedia and Operation Design: Model, Notation, and Tool Architecture” Deliverable D7 European Project UWA, December 2001. Available on www.uwaproject.org
- [R13] M. Bochicchio, *Vito Perrone* “Requirements Investigation for Bank121 pilot application” Deliverable D3 European Project UWA, July 2001. Available on www.uwaproject.org
- [R14] E. Bianchi, *Vito Perrone*: “Requirements and Design Specification for Bank121’s pilot application (using UWA tools)”. UWA project, Deliverable D22 December 2002. Available on www.uwaproject.org
- [R15] C. Greco, A. Pandurino, *Vito Perrone*: “Bank121’s pilot application: From conceptual design to implementation”. UWA project, Deliverable D24, December 2002. Available on www.uwaproject.org
- [R16] *Vito Perrone*, I. Murua Belacortu, J. Herrero Arranz, Paolo Paolini: “Usability Field Test”. UWA project, Deliverable, June 2002. Available on www.uwaproject.org

PAPERS PRESENTED AT NATIONAL OR INTERNATIONAL CONFERENCES

- “Developing an Integrative Platform for Cancer Research: a Requirements Engineering Perspective”. Presented at the fifth E-Science All Hands Meeting, 19 September 2006, Nottingham.
- “A UML Extension for Designing Usable User Experiences for Web Applications”. Presented at the V International Workshop on Web Oriented Software Technologies (IWWOST’05), June 13th, 2005 (Porto, Portugal) – in conjunction with CAISE’05
- “DICE: a new approach for Integrating Distributed Heterogeneous Information Sources for Cultural Heritage”. Presented at EVA 2005, the International Conference of Electronic Imaging and the Visual Arts, Florence (Italy), 14-18 March 2005.
- “Designing Communication Intensive Web Applications: a case study”. Presented at the VII Workshop on Requirements Engineering (WER 2004), December 9-10, 2004 - Tandil, Argentina.
- “Integrating Distributed Heterogeneous Information Sources for Cultural Heritage: the DICE approach”. Presented at the Third International Workshop on Presenting and Exploring Heritage on the Web - PEH’04, co-located with DEXA 2004, 30 August - 3 September 2004, Zaragoza, Spain
- “A Wish List for Requirements Engineering for COTS-based Information Systems”. In Proceedings of the Third International Conference on COTS-Based Software Systems (ICCBSS 2004), 1-4 February 2004, Redondo Beach, CA USA.
- “An Approach for Designing Ubiquitous Web Applications: A Case Study”. Presented at the IASTED International Conference on Communications, Internet and Information Technology (CIIT 2003), November 17-19, 2003, in Scottsdale, AZ, USA.
- “On the Acceptability of Conceptual Design Models for Web Applications”. Presented at the ER’03 Conference (IWCMQ’03), October 2003, Skokie, Illinois, USA.
- “Conceptual Modelling of Services in Multi/Cross Channel Web Applications”. Presented at the SEBD ’03 conference, June 2003, Cetraro, Italy