

UPGRADE is the European Journal for the Informatics Professional, published bimonthly at <<http://www.upgrade-cepis.org/>>

Publisher

UPGRADE is published on behalf of CEPIS (Council of European Professional Informatics Societies, <<http://www.cepis.org/>>) by **Novática** <<http://www.ati.es/novatica/>>, journal of the Spanish CEPIS society ATI (*Asociación de Técnicos de Informática*, <<http://www.ati.es/>>)

UPGRADE monographs are also published in Spanish (full version printed; summary, abstracts and some articles online) by **Novática**

UPGRADE was created in October 2000 by CEPIS and was first published by **Novática** and **INFORMATIK/INFORMATIQUE**, bi-monthly journal of SVI/FSI (Swiss Federation of Professional Informatics Societies, <<http://www.svifs.ch/>>)

UPGRADE is the anchor point for UPENET (UPGRADE European NETWORK), the network of CEPIS member societies' publications, that currently includes the following ones:

- **Informatica**, journal from the Slovenian CEPIS society SDI
- **Informatik-Spektrum**, journal published by Springer Verlag on behalf of the CEPIS societies GI, Germany, and SI, Switzerland
- **ITNOW**, magazine published by Oxford University Press on behalf of the British CEPIS society BCS
- **Mondo Digitale**, digital journal from the Italian CEPIS society AICA
- **Novática**, journal from the Spanish CEPIS society ATI
- **OCG Journal**, journal from the Austrian CEPIS society OCG
- **Pliroforiki**, journal from the Cyprus CEPIS society CCS
- **Tölvumál**, journal from the Icelandic CEPIS society ISIP

Editorial Team

Chief Editor: Llorenç Pagés-Casas

Deputy Chief Editor: Francisco-Javier Cantais-Sánchez

Associate Editors: Fiona Fanning, Rafael Fernández Calvo

Editorial Board

Prof. Vasile Baltac, CEPIS President Elect

Prof. Wolfried Stucky, CEPIS Former President

Hans A. Frederik, CEPIS Vice President

Prof. Nello Scarabottolo, CEPIS Honorary Treasurer

Fernando Piera Gómez and Llorenç Pagés-Casas, ATI (Spain)

François Louis Nicolet, SI (Switzerland)

Roberto Carniel, ALSI - Tecnoteca (Italy)

UPENET Advisory Board

Matjaz Gams (Informatica, Slovenia)

Hermann Engesser (Informatik-Spektrum, Germany and Switzerland)

Brian Runciman (ITNOW, United Kingdom)

Franco Filippazzi (Mondo Digitale, Italy)

Llorenç Pagés-Casas (Novática, Spain)

Veith Risak (OCG Journal, Austria)

Panicos Masouras (Pliroforiki, Cyprus)

Thorvaldur Kári Ólafsson (Tölvumál, Iceland)

Rafael Fernández Calvo (Coordination)

English Language Editors: Mike Andersson, David Cash, Arthur Cook, Tracey Darch, Laura Davies, Nick Dunn, Rodney Fennemore, Hilary Green, Roger Harris, Jim Holder, Pat Moody.

Cover page designed by Concha Arias-Pérez

"Informatics Race" / © CEPIS 2009

Layout Design: François Louis Nicolet

Composition: Jorge Liácer-Gil de Ramales

Editorial correspondence: Llorenç Pagés-Casas <pages@ati.es>

Advertising correspondence: <novatica@ati.es>

UPGRADE Newsletter available at

<<http://www.upgrade-cepis.org/pages/editinfo.html#newsletter>>

Copyright

© CEPIS 2009

All rights reserved under otherwise stated. Abstracting is permitted with credit to the source. For copying, reprint, or republication permission, contact the Editorial Team

The opinions expressed by the authors are their exclusive responsibility

ISSN 1684-5285

Monograph of next issue (October 2009)

"Experiences and Advances in Software Quality"

(The full schedule of UPGRADE is available at our website)



The European Journal for the Informatics Professional
<http://www.upgrade-cepis.org>

Vol. X, issue No. 4, August 2009

2 Editorial: On the 20th Anniversary of CEPIS — *Niko Schlamberger*

Monograph - 20 Years of CEPIS: Informatics in Europe today and tomorrow

(published jointly with Novática*)

Guest Editors: *Robert McLaughlin, Fiona Fanning, and Nello Scarabottolo*

- 4 Presentation: Introducing CEPIS — *Robert McLaughlin, Fiona Fanning, and Nello Scarabottolo*
- 7 A Profession for IT? — *Declan Brady*
- 12 The European ICT Industry: Overcoming the Crisis and Helping Others along the Way — *Hara Klasina*
- 15 Legal and Security Issues in Informatics — *Kai Rannenberg, Marko Hölbl, Eleni Kosta, Les Fraser, and Joop Verbeek*
- 19 Informatics for All - Everywhere, Any Time — *Peter Federer, Gerald Futschek, and Jorg Ruegg*
- 23 Challenges for IT Professionalisation — Interview with *Michiel van der Voort*
- 27 The State of Informatics in Portugal — *José Cardoso de Matos*
- 32 Spain: The Situation of Informatics in 2009 — *Fernando Piera-Gómez*
- 35 Current State of Informatics in Central, Eastern and Southern Europe: The IT STAR Experience — *Plamen Nedkov (with contributions from Balint Domolki, Giulio Occhini, and Niko Schlamberger)*
- 44 UPGRADE: The Unofficial Story of a Successful CEPIS Undertaking — *Rafael Fernández Calvo*
- 50 1991: Making the Knowledge Work — *Francisco López-Crespo*
- 53 1992-1993: No Task Will Be Avoided merely because it is Impossible! — *Maurice S. Elzas*
- 55 1993-1995: Finding the Way Forward — *Jaakko Kivinen*
- 57 1995-1997: ECDL Take-off Years — *Giulio Occhini*
- 59 1997-1999: ECDL is Launched. Now what? — *Roger Johnson*
- 61 1999-2001: Unity in Diversity — *Peter Morrogh*
- 63 2001-2003: Some Steps Forward in Europe — *Wolfried Stucky*
- 65 2004-2005: Moving to the Heart of the EU — *Jouko Ruissalo*
- 66 2005-2007: Building on our Collective Strengths — *Geoffrey McMullen*
- 67 CEPIS - Remaining Relevant for the Next 20 Years — *Vasile Baltac*

UPENET (UPGRADE European NETWORK)

- 70 From **Pliroforiki** (CCS, Cyprus)
ICT for Education
The Social and Cognitive Dimensions of Computer-Supported Cooperative Learning — *Andriani Piki*

- 75 From **Novática** (ATI, Spain)
Internet
The New WCAG 2.0 Accessibility Guidelines: Changes and Recommendations to Be Implemented — *Mireia Ribera-Turró and Miquel Térmens-Graells*

CEPIS NEWS

- 79 Maximising the Impact of ICT Infrastructure Investment — *ECDL Foundation*

* This monograph will be also published in Spanish (full version printed; summary, abstracts, and some articles online) by **Novática**, journal of the Spanish CEPIS society ATI (*Asociación de Técnicos de Informática*) at <<http://www.ati.es/novatica/>>.

Challenges for IT Professionalisation

Interview with Michiel van der Voort

"For Information Technologies (IT) to truly at last flower into a real profession on the same lines as the Law, Medicine or Accountancy, we need to start listening to what business wants from us in terms of "marketing" our competencies; and it's about time we were held to the same levels of trust as the man who builds our new house or to whom we entrust our physical well-being". This interview presents this and other views of the man charged with leading the British Computer Society's (BCS) drive for greater internationalisation of its products, services and messages.

Keywords: BCS, IT and Business, IT Leadership, IT Profession, IT Professionalisation.

Box 1: What is the British Computer Society?

The British Computer Society (BCS)¹ is the leading body for those working in IT in both the United Kingdom (UK) and, increasingly, abroad. With a growing global membership of 70,000 members in over 100 countries, BCS is the awarding body behind the widely-recognised IT professionalism status Chartered IT Professional (CITP) while also acting as local representative of a wide range of cross-border qualifications for both the IT professional and the user of IT.

The organisation's roots go back as far as 1956 when a group of data processing pioneers in London banded together. It was incorporated in its current form by Royal Charter in 1984, with the mission of promoting the study and practice of computing and to advance knowledge of and education in IT for the benefit of the public. The organisation now has 15 International Sections in countries as diverse as Belgium, Mauritius and Pakistan and 40-plus Specialist Groups on topics ranging from IT and the Law, Information Risk Management, Software Testing and Open Source.

A registered charity, the BCS is licensed by the UK Engineering Council to award Chartered Engineer status (CEng) and Incorporated Engineer status (IEng) and by the Science Council to award Chartered Scientist status (CSci) to its members, as appropriate.

"For IT to truly at last flower into a real profession on the same lines as the Law, Medicine or Accountancy, we need to start listening to what the business wants from us in terms of "marketing" our competencies; and it's about time we were held to the same levels of trust as the man who builds our new house or to whom we entrust our physical well-being". That at least, is the view of the man charged with leading the BCS' drive for greater internationalisation

Interviewee

Michiel van der Voort, Executive Director for International, British Computer Society (BCS), has extensive experience in the international IT and education business, mainly in Europe and the United States (US). His interest in IT is broad, ranging from issues around the digital divide, proper certification of user skills, the environmental impact of IT, IT as a true business enabler, learning and development in general and the future of business in a European context. In the role of international director, van der Voort is responsible for the international strategy and the internationalisation of the BCS products and services, identified as the IT professionalism agenda and moves towards Green IT. Van der Voort represents the BCS on the executive team of the e-skills Industry Leadership Board, and he is also chair of its Certification Council, while simultaneously holding a Directorship of the Skills Framework for the Information Age Foundation (SFIA). Previous to his role at BCS, van der Voort was one of the founders of the European e-skills certification consortium and of the Chief Information Officer (CIO) Platform of The Netherlands. For a number of years he was member of the IT Infrastructure Library (ITIL) Qualification Board. <michiel.vandervoort@hq.bcs.org.uk>.

of its products, services and messages, especially in the European theatre of informatics.

The BCS (see Box 1) is, in 2009, celebrating over 50 years of operation in terms of being a professional body for UK members of the IT field, though many of its 68,000 members are often based far from the shores of the UK. With this lineage and unique international perspective, the organisation would always be well placed to offer insight into the future developments of European informatics; but in what has been a formalised role for 18 months it has a specific executive, Michiel van der Voort, who is tasked with the mission to develop a truly international and cross-border role for the BCS, its qualifications, services and "voice".

For this special 20th anniversary edition of UPGRADE, we conducted a wide-ranging conversation with Michiel van der Voort in his main office in The Netherlands.

Q: What do you see as your role and responsibility as International Executive Director at the BCS?

A: The ambition of BCS is to be the leading *global* body for IT professionals. Certification and Continuous Profes-

¹ <<http://www.bcs.org/>>.

sional Development are important elements of the professionalism programme, without a doubt, which is partly why we now have a presence in over 100 countries and 15% of our membership are not based in the UK. Certainly, some of those non-UK based members are ex-pats who find themselves either posted abroad or who are seeking to develop their careers by working in locations such as the Middle East, North America or Asia-Pac. But many are citizens of other countries who see great value in what we do. Many top Project or Service Managers, IT leaders, senior professionals in all sorts of disciplines in countries like the US or India want to be BCS members and be connected to our network. So my job is to develop and build on that interest. I have a four-person team who under my direction are all very busy looking for opportunities for us to forge better links abroad, look at how we can meet the needs of the IT communities of places like the Middle East, see how what we do can help them and be adapted and improved in general. This is in essence an opportunity for growth. We have a great track record, we have impressive growth and retention rates around our membership figures, we see direct relevance in our experience and products to the international agenda, so it is definitely time to move forward here.

Q: Is this a very recent recognition by the organisation of such interest?

A: Not at all. BCS has always had an international dimension to its work, right from the start. We have an excellent education programme, as I've just said, and that's very widely acknowledged. If you are interested in best practice around an area like Business Analysis we have exams and support materials that will be of great help to you, and have been too many people outside the UK. But beyond that, we think we have built up expertise in a number of universal IT issues that deserve (and are finding) a much wider audience than just in the UK.

Q: Is this your work around the BCS CITP (Chartered IT Professional)?

A: That is a key part of it, yes, but really it is the set of messages and guidance we are building up about what professionalisation means, as relevant to people in the US, Canada or India as Europe, which I'd like to explain in more depth if I can in a minute. But then there are issues like Green IT. This is a new topic (though some do say it's "always" been with us) that's attracting great interest globally, and people are coming to the BCS to hear what we have to say about it from all over the world. Now, that's just one example of what we can offer. What I think is really key, especially for the Council of European Professional Informatics Societies (CEPIS) audience, is the news that the BCS has decided to intensify its endeavours and be more proactive in this area so as to really drive the agenda around the *professionalisation* of our industry.

Q: Can you be more specific about what you mean here? After all, this is a topic we in IT have been discussing for many years now, seemingly without universal agreement on what *professionalisation* really means.

A: Indeed, though there are many commonalities about

what all those various definitions and visions have to say. But yes, there are some issues about what we mean when we say IT "career" or "job". For instance, here in the Netherlands some years ago an exercise was conducted to compile a full set of definitions about all the specific roles there are in IT. When it was revised only a few years later, it was found to be mostly redundant. That's because you could have a definition of a "Dutch" IT job that didn't map on to what a "German" or "Canadian" IT job definition was.

Q: How can that be so? A Java programmer is a Java programmer is a...?

A: Because not all IT roles, especially around senior or cross-functional functions like Project Manager or IT Architect are so bounded. They are roles that are in fact not limited to what one country wants to define as an IT job but are multi-national. Plus, there's the factor of the internationalising of IT itself. The Outsourcing revolution has led our colleagues in India or South Africa and so on to have to work the way we in the West wanted, say, a Service Management leadership function to be followed. So we have a number of roles that are really now "international" in scope and understanding.

Q: So there's surely no problem. We all now "know" what these IT roles are.

A: Not so, it just isn't that simple. There is a divergence in our common understanding of what IT is all about and what being a true IT professional might convey on two axes. One, the local, national characteristic level, as it were; two, the split between what the IT industry says it is all about and what our colleagues and customers in business want from us.

Q: Sounds very complex, yes. Can you explain?

A: If I am a German IT professional, it's all about the Diploma. That's the frame of reference for your expertise, and for a German IT person in a kind of managerial or leadership role that solid, academic, very formal background is essential; it's probably near-impossible to get to that level without it. Yet their colleague from Holland or England has a very different approach; what they studied at university is of course relevant, but we are much more focused on their competence for a particular position.

Q: So you see a kind of cultural split here?

A: I have heard it argued that in IT we have a difference between a "Continental European" approach, based on the Diploma, "*my career is based on what I achieved as a young person in education and that is the platform for my later achievements,*" and the "Anglo-Saxon" ideology, which is allegedly more like "*my contribution is based on what I have learned, the accumulated job experience and training that I have built up over the years since I left university*". If you like, that approach does inform the spirit of the CITP. But then the Dutch example, and many others across Europe and beyond Europe, Middle East and Asia (EMEA), makes that distinction a bit too simplistic, I think. I mean [he laughs], if you really wanted me to, I could probably eventually find my Mathematics Diploma from the mid-1980s (it's somewhere in the house) but really in this soci-

ety, Dutch society, we don't really worry so much about it. And Belgium is different to France, and so forth. I sometimes joke we have 27 different countries in the European Union (EU) so we have 28 different attitudes about things!

Q: Right. So we have a set of attitudes in different countries, you're saying, about how to value an IT person. Is it experience or letters after the name?

A: Which would be fine, but like I said, that's not the only axis of difference and debate in IT. You have an equally big gulf between what we say we are doing in IT and what the rest of the business thinks we are doing.

Q: Surely this is not an issue in 2009?

A: To answer that, look at what Airbus (a truly European company, if ever there was one) has to do when it sources an IT person. It has to have one common, core set of job descriptions, for which quite rightly a German, a Spaniard, a Hungarian can all equally apply. But it just wouldn't work (Human Resources couldn't process any of this) if it didn't work at a higher level than both the local, national definition of the individual's IT "worth" and the specific, technical set of knowledge he possesses. So, they think less of "we need a Wi-Fi expert" or "show me all the people who know Cisco routers inside out" than what the individual can do to contribute to the business as a whole. The business wants a Business Analyst who can slot in and work with many sorts of people; they want professionals who excel at conflict management.

Q: If I grasp you right, you're talking about the ongoing issue around "soft skills" (that IT people are too often perceived as too technical, inarticulate and so on)?

A: Not at all. What I mean is that the business wants to hear about competencies and skills, not niche areas of knowledge. Five years ago we hardly ever talked about wireless, in five years it might have come and gone.

Q: So the thought here is that there are all these different, local ways of validating professionalism and competence in IT that, if not in conflict, are at least disparate, and that meanwhile the wider organisation and customer base has a different way of measuring competence altogether. Is a synthesis at all possible?

A: Very much so, but I am the first to acknowledge that there are some keywords, some core agreements, that we still haven't quite found yet. Key to this, I and the BCS believe equally, is proven, demonstrable in-post accomplishment. To be an IT professional you need to be good at what you do. There is also a very important element of education, perhaps less of the foundational education or degree path, if for no other reason than the very pragmatic one that so many IT professionals didn't study Computer Science but have come in through a wide variety of routes, but more of the ongoing, industry, vocational, variety. To be a BCS CITP, to take a small but extremely relevant example, certain skill elements need to be regularly tested and refreshed or we withhold the right for you to use the title. We think this sort of approach is the right basis for a more universal definition of what an IT professional would be all about.

Q: So it all comes down to technical competence, re-

ally, even if that's not necessarily based on formal qualifications?

A: I have to answer that question with a question. When you contract with a lawyer or an architect, are you solely interested in their technical knowledge? Do you not worry at all that they are honest, reliable, won't defraud or bankrupt you?

Q: What is your point?

A: We at the BCS think professional *ethics* is a huge component of overall professionalism. What is the difference, ultimately, between committing to building a new network or offering to do the books of a small company? In both cases, there must be trust that the requirement is not impossible to fulfil and that the result is of high quality and fit for purpose. A dentist, a solicitor, any kind of expert, professional consultant one engages with, one expects that they will approach a commitment in the same way. We want the same, explicit element in the definition of IT professionalism and projects. We have some interesting ongoing debates with colleagues across Europe who think this is already implicit, but we think it's too fuzzy. An open code of conduct and code of ethics for IT, where the individual commits to being honest, fair, not taking on work they can't accomplish, we feel would be a very big step towards IT becoming a profession on a par with the other expert, knowledge-worker jobs out there in modern society.

Q: But you must still be able to deliver the network!

A: And that's the way the business itself sees it, they want both. I don't think there's a conflict.

Q: It's probably useful to draw together these strands, then. A focal point for that could be the fact that in this issue of UPGRADE we are celebrating 20 years of informatics in Europe. What does your experience and role at BCS equip you to say about the next 20?

A: [laughs] I couldn't possibly give any kind of useful prediction about the technology changes we'll see between now and 2029! I doubt anyone would be so brave. What I do see, what I am completely convinced of, is that the integration of computers and digital technology in the wider society will be a trend that only increases in pace. There are computers everywhere and in everything now. If you doubt me: turn off your cell phone for two days and see if you can cope!

Q: OK then, what about the informatics community and the way our profession may evolve?

A: I am convinced that many of the issues we've been discussing here will coalesce. IT will move more and more towards being recognised as a full and equal profession by our peers. To do that, we will move away (as we already are) from our previous emphasis on niche, technical jobs based on skill A or technology B to more generic, sustainable roles. The business, I'm afraid to quote you back, doesn't want a "Java programmer" so much as a Business Analyst or IT Project Leader. As part of this, we in IT will become more familiar and expert in the business domains we work in. It might have been all right 20 years ago for a

Banking CIO to sit in his data centre in the cellar; in 20 years, surely sooner, he won't have a job if he doesn't also know about what makes his bank good, what the best fiscal approach is to a problem, he will be combining that with his IT expertise, which I think will be a really powerful combination. I'd also like to see the field less male dominated and approaching the same gender split as the rest of business, more 50-50. And above all, we will stop talking about the IT "solution" and more about the IT "contribution," the innovation and difference we as true, competent, measured and validated IT professionals will and do make.

Q: To sum up, then, what is the overall BCS message to the CEPIS audience on this landmark anniversary of European informatics?

A: We need to combine what's specific and local and works well at the country level in IT with the higher set of issues around IT professionalism in general. There is an increasing international dimension to every IT job that just has to be acknowledged. We need to look at how we can benefit from best practice elsewhere and fit or adapt it to our needs as part of such a process.

Q: And if we don't do this, what are the consequences? Or to make it more positive, what is "in it" for me as an IT professional in such a process?

A: As an IT professional it's in your interests anyway to see a truly international, global definition and set of agreements and common standards for IT competence evolve. A global set of definitions would mean a global recognition of core qualifications which would also support greater job mobility, country to country as well as locally. The real message, I think, to European informatics and computer societies is to seize this opportunity, look for commonality and leverage what works best and put it on the common agenda, and maybe [smiles] let one or two such bodies take a lead and see where it gets us all as a profession.