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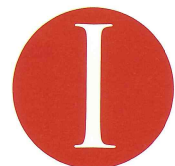
**“CONTROL CAN
MEAN MONEY.
QUITE A LOT OF
MONEY”**

Professor Roberto Di Cosmo on why the world should take note of Europe's biggest free software experiment, p12



CONTENTS

- 07 **The Quarter**
Essential intelligence, including the former CEO of Burger King on stakeholder engagement, the new BPO hotspots, and the latest CIO movers and shakers
- 12 **The Big Interview**
Open source guru Roberto Di Cosmo tells us why the world should copy the great French experiment
- 16 **Special Report The CIO Dream Team**
● **Analysis** – What makes a world-beating CIO?
● **Case Study** – The CIO of the UK's Foreign Office
● **Boardroom View** – Chief HR officer at Allianz
● **CIO Barometer** – You tell us: is the CIO's role changing?
● **Data Feed** – Essential CIO stats, facts and figures
- 27 **Technology 10**
From femtocells to quantum computing, 10 things you need to know about now
- 35 **This Way Up**
Filippo Passerini, CIO of P&G, on how innovation and agility have been key factors in his career
- 38 **Strategic Focus**
How lean IT can transform businesses – including Carlsberg's CIO on how he reduced a service desk cycle from weeks to just one day
- 42 **Lean Lessons from Japan**
Dr Jeffrey Liker, author of *The Toyota Way*, reveals the three key strategies for implementing lean IT
- 45 **Legal I**
European software patenting laws unravelled
- 46 **Interface**
Where is the value in green IT?
Leading analysts cut through the hype
- 48 **Country Briefing**
A CIO's portrait of Germany in recession
- 50 **Active High**
CIO Claire Hamon on her love of rugby



Open for business

The French government's experiment in open source has led to huge public sector cost savings and unprecedented levels of control over its software. Professor Roberto Di Cosmo explains why the rest of the world should sit up and take notice

Words: Andrew Donoghue Photography: Jake Walters



Roberto Di Cosmo, professor of computer science at Paris Diderot University, is one of Europe's leading experts on open source



“The rest of the world will need to follow

The idea of being outside of the system – not part of the establishment – must be high on the list of reasons why the open source movement attracts so many devoted, often fanatical, followers. Rebelling against the perceived control that proprietary software (most notably Microsoft) and closed standards yield is exciting and just a little bit dangerous.

It's not hard to understand, then, why a country such as France, whose national identity is so closely tied to rebellion and revolution, would find a natural affinity for this community-developed software. Open source embodies the idea of people uniting around a shared belief to achieve a goal. While creating an open source database might not be quite as dramatic as beheading aristocrats with the guillotine, there is at least some common ground with the French revolutionary motto of *liberté, égalité, fraternité*.

With a zeal that could almost be described as revolutionary, France's public sector has taken to open source and open standards like few other governments around the world. From the Ministry of Finance to the military, free software and open standards have not only been accepted, they are actually stipulated. As far back as 1999, when open source was way off the mainstream radar in most countries, France was considering legislation to enforce the use of open source in public sector IT projects. A ruling along these lines was eventually passed in 2001, backed by the French Agency for Information and Communication Technologies.

Insisting on open standards

Roberto Di Cosmo, professor of computer science at the Paris Diderot University, has more than 15 years' experience in the field of open source development and is one of Europe's leading experts in the field. He is certainly committed to the potential of open source but, crucially, being an academic he also has the degree of detachment necessary to study a subject without being clouded by personal beliefs. He was an early member of the Association of French Linux Users, a founder of the Association for Free Software

in the Public Sector and, until recently, the head of the open source thematic group of the French government-funded Systematic Competitiveness Cluster. This, allied to a deep knowledge of French government and society without actually being French – he is Italian by birth – makes him the perfect candidate to discuss his adopted country's love affair with all things open source.

But why should the rest of the world pay any attention to what's going on in France? Because, Di Cosmo believes, France is leading the way with its software choices. “Definitely the rest of the world will need to follow the example of France,” he says. “The only question is when. In France people are insisting on open standards and interoperability first. This will eventually bring to the user open source software, which is the best tool available today not only to control your technology, to control your agenda, but also to be able to make sure standards are actually followed.

“You should make sure that the software is up to standard and the standard is something you should set, not the company selling you the software. And can you be sure that the technology you're using today is something you can change when you want to do it, not when somebody else wants to do it? It's about freedom and control.”

The turning point in France

Open source is a natural fit with many aspects of French society, but the real turning point for France came with the new millennium when the government got behind the philosophy in a very real way. “It went mainstream between 2000 and 2003,” says Di Cosmo. “The market for the open source philosophy in France really opened up. If I had to choose one point in time – which is unfair as there were many ingredients to make this change – then the most influential moment actually came from the government with the changing of the information systems at the Ministry of Finance,” he says.

The Ministry of Finance project was a turning point because rather than accepting the usual way of tendering for new IT government projects – still practised in the public and private sector of many

the example of France. The only question is when”

countries today – the department changed the game. “[The ministry] opted for an architecture based on open standards – not free software *per se*. Interoperability, compatibility: these were the key points. And also vendor independence, so for example you have web clients rather than the typical Windows-based clients to interact with the system,” he explains.

Huge cost savings

“I know the person at the ministry who planned and oversaw the development of this project and he told me it was a tough call at the beginning because everybody was looking at him saying, ‘Wow. What are you doing? Open source? Open standards? Come on!’ People were basically laughing at him,” says Di Cosmo.

“But in the end he did it and exact analysis not only showed that the project was precisely on schedule, but it also highlighted huge cost savings that were as high as 10 to one for several parts of the system. That was huge, but he could do it because he had good technical people and because he was able to impose quality constraints on the market that unfortunately you don’t normally see in public procurement.”

The scope of the project was enormous. It now has more than 4,000 servers with a system running fully open source software made from more than 250 different components.

Key factors for software buyers

Di Cosmo’s belief that lock-in and expense are key factors for software buyers is likely to become even more valid as the global downturn continues to bite over the next 18 months, particularly in the private sector, although he stresses that switching to open source purely for financial reasons is rarely the best move – unless the thinking is long-term. “You should take into consideration not only things like the cost today, but also your control of the evolution of your technological infrastructure in the long-run, and choose an open source

solution,” he says. “Even if it comes at a cost at the beginning, in the long-term it can bring big savings, if you choose properly – or can even be strategic to the survival of your business.”

Another issue in any discussion about open source in Europe is the anti-US argument. Sentiments are beginning to change, given that President Obama cuts a more worldly figure than his predecessor, but for a significant time it appeared that open source was supported by countries like France because it was seen as less American than software from companies such as Microsoft and IBM.

“I am sure there is a component of not wanting something that is not French,” says Di Cosmo, “but actually many of the open software systems we use are not French either. I think the reason that a lot of people don’t like Microsoft is not because it is American but because it is a monopoly and it uses monopoly power to keep high prices, reduce choice, slow innovation, and impose onto us its own business agenda, which often clashes with our own agenda. I think even if Microsoft was French you would have the same feeling,” he quips.

Putting your own technological interests first

As for his future, Di Cosmo says he has been crazily busy with his lecturing day-job as well as leading the French government’s open source thematic group, but has no plans to slow down. Although he is stepping down from the latter role, he is working on a new project to establish a physical open source research and innovation facility to complement the work of the current thematic group that is a virtual collection of experts rather than an actual establishment.

When it comes to boiling down his thoughts on the future use of open source and its role in the IT industry, Di Cosmo has a healthily pragmatic view on what the real focus should be. “Within your organisation, ensure you’re putting your own technological interests first,” he urges. “It’s much more about control than about money. Even if, in the end, control can mean money – quite a lot of money.” ●

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