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Interview with Roberto Vacca

Gianluca interviews Roberto Vacca, the Italian engineer, who is known as a “futurolgist” because of his sharp forecasts and provisional models

Gianluca Pignalberi

Roberto Vacca is a Doctor of Computer Science and an electrical engineer. He is very well known in Italy because of his forecasts, mathematical and provisional models, his books (which he sells through his site www.printandread.com (www.printandread.com)) and articles. Since his forecasts, as well as his points of view, are always very sharp and are so clearly expressed, I decided to talk with him about his activity and free software world.

What do you foresee in the future for free software?

I think free software is the future

Prof. Vacca, you're well known for your predictions, including foreseeing events like: the fall of the Soviet Union, and the Italian blackout in 2003. Since you don't have a crystal ball, can you explain to our readers what knowledge helps you in foreseeing such important events?

We learn from history that empires, cultures, and organisations are created, sometimes they prosper and grow—they flourish and then fall. Other processes too go through phases and downgrading is always lurking behind us. Experience, knowledge of socio-economic mechanisms and imagination are great helps for producing plausible forecasts.

Your predictions seem to be very much non-numerical

(unlike, for example, the weather forecasts, where mathematical models are used to do “a probable prediction”). Some might even think you're just guessing! How do you determine the probability of errors in such predictions?

I produce both qualitative and numerical forecasts. I could imagine in 1979 the downfall of the USSR on the basis of common sense. I use mathematical models to forecast (often very precisely) deterministic processes—like epidemics (deaths due to cancer or AIDS) or increase in car numbers in a given country. I can't define the probability of errors: sometimes I succeed in forecasting these numbers 15 years in advance with an error of just a few percent. Sometimes unexpected factors crop up and I am off by 50% or more.

You build mathematical models and apply them to your forecasts. Do you use computers to aid in model construction, or do you use computers to check the quality of the models or to perform simulations?

I have developed a number of proprietary mathematical models and software packages. I use them to work out system analysis studies for my customers.

Do you prefer using proprietary or free software and why?

I use Word and Excel for simple accounting chores. For math analysis, modelling etc. I produce my own software—which incorporates quite a number of sophisticated tools.

Roberto Vacca, the Italian expert who forecasts events by modelling mathematical formulas and software tools



The free software model is, roughly speaking, the following: a person, or a group of people need specific software, they don't want to use proprietary software and start designing their own tool. The resulting program and source code are freely available, so that other users can use, debug, add features, and improve on the code's quality. How do you believe this working model is good for designing software? And how, in your opinion, could it be useful in other fields, not necessarily related to computer science?

Free software is OK, but I don't have time to document the software I produce so it can be used by others. I have only very few and occasional collaborators. So I have to take care of a lot of menial chores—and I just manage to survive in the turmoil of a very personal, extremely messy filing system. So I don't have time for niceties.

What's your opinion on software patents? How do you believe adopting them could be an advantage, or disadvantage, for developer communities?

I don't feel strongly about software patents one way or the other. I don't feel strongly even about copyright. For years I have published books printed by publishers (about 35 of them). I wonder whether they were very scrupulous about my royalties. For 6 years now I have been offering my books (in English and Italian) online. I give for free the first chapter of each book and the contents—if you like it, you give the data of your credit card to the secure server of my bank and you download the book in .pdf. You print, bind it (in

parchment if you so prefer) and read it. Of course you can print more copies and give them away or sell them—if you are successful, it means I am VERY popular, so: good luck (mazeltov!)—but I warn you (tongue in cheek) that I'll prosecute you.

What do you foresee for the future of free software? What advice would you give to the free software community?

I think free software is the future. The advice is: innovate—innovate and devise crafty ways for achieving standardisation (which, very forcibly, Microsoft has done) without, at the same time, cornering the market and building an obstreperous fortune founded on software which is too heavy, cumbersome, unsafe to the extent of voiding the positive impacts and uses of innovative, faster hardware. Above all: do away with the barbaric use of icons and go back to the precise, effective, retrievable reliance on alphanumeric representations and coding.

 Innovate and devise crafty ways for
 achieving standardisation

I believe Roberto Vacca's interesting point of view could help the free software community build a future even better than its members are currently building. Conversely, his answers will hopefully be the starting point of a new thread of discussion.

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