From: Steve Russ <warwick!sbr>
To: wmb

You may be interested in dmrp's reply to my note about lack of any introductory book on computer science:

>From dmrp Fri May 1 11:36:55 1987
From: David Park <warwick!dmrp>
To: sbr
Subject: book wanted urgently(needs writing)

Point taken. The trouble is there is so little consensus what the *real* basic problems are. To write such a book well really requires the exercise of good intellectual taste and careful articulation. We need something as thought-provoking as Hardy, at best, managed to be about Pure Mathematics. It is far too easy just to snow people with one's favourite formalisms and pedantries, and with fascinating technical detail.

My own feeling is that what is needed is a really unstuffy view of the relationship between logic and computer science. Bringing this to light will depend on getting current research in software for supporting rigorous program development to a mature and really viable form. Without it the academic's view can easily (and justifiably, maybe) be dismissed as sterile intellectualising.

This can almost be done now. The work being done here at Edinburgh on proof editing and their very general logic system LF is really very promissing. But it still has a while to go before we can have a clear view of a viable methodology. In the meantime the picture, of competing formalisms and of theory whose relevance is difficult to assess, will continue. Knowing what is worth communicating depends on a community of motivation, which will only really be established when its practical relevance is understood.

But maybe this is too sombre a view. Something can surely be done now, to

get across the basics: finite state machines, grammars, the significance of recursion, algebraic approaches to concurrency, domain theory, evaluating mechanisms for logic programming and functional programming, semantics and its relation to program logics. Hmmm...

Steve