

[In his talk](#) at [LACSI Symposium](#), Santa Fé, NM, October 17-19, **2006**

([mirror](#))

# *Reinventing Computing*

Burton Smith *Microsoft*

at that time being a Microsoft Fellow,  
he massively criticized

## *The von Neumann model*

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- We have relied on it for some 60 years
- Now it (and some stuff it brought along) must change
  - Serial execution lets programs *schedule values into variables*
  - Parallel execution makes this scheme hazardous
- Serial programming is easier than parallel programming
  - Trouble is, serial programs are now becoming slow programs
- We need parallel programming paradigms that will make everyone who writes programs successful
- The stakes for our field's vitality are high
- Computing must be reinvented

*Microsoft*

The term "[von Neumann Syndrome](#)" was coined also in 2006, by Prof. C. V. Ramamoorthy from UC Berkeley

Also see: "[The Reinvent Computing Page](#)"

and: "[Computers are facing a Seismic Shift](#)", and:

"[SE Curricula are Unqualified to Cope with the Data Avalanche](#)"