

Programming Languages – Past Achievements and Future Challenges

The design of programming languages and their compile-time and run-time implementation are closely related, and are dependent on the underlying computational model. In the 1960s, 70s, and 80s many languages were designed, and many implementation strategies and computational models were explored. Since then, the commercial world has largely settled on a few legacy languages. Meanwhile, both the capabilities of computing systems and the ways in which they are used have changed dramatically. The panelists will summarize the lessons they have learned about language design, and also what has not been learned. They will consider how those lessons can be applied to the myriad application domains, architectural frameworks, user needs, and economic considerations that exist today, and will speculate about the future.