## The ACM Turing Award The Nobel Prize of the Informatics



AND Johan Dahl

For ideas fundamental to the emergence of object oriented programming, through their design of the programming languages Simula I and Simula 67.

Stephen R. Boume

PRESIDENT

AWARDS CHAIRMAN

## "Object-oriented programming is a dominant programming paradigm of

this age. Fundamental to the emergence of this paradigm were core concepts such as objects, classes, and inheritance with virtual quantities, all clearly established in Ole Johan Dahl's and Kristen Nygaard's discrete event simulation language Simula I and general programming language Simula 67. The objects integrate the data, procedural and (cooperating) action sequence aspects into one very general and powerful unifying entity.

By embodying these core concepts in a language designed both for system description and programming, Dahl and Nygaard provided not just a logical, but a notational basis for the ideas. Software could be built in layers of abstraction, each one relying on a description and conceptual platform implemented by the previous layers. By defining Simula 67 to be an extension of an international standard language, Algol-60, this medium of expression was accessible and available to the entire research community. Simula shaped and sped the emergence of object-oriented programming and the management discipline that accompanies it by many years."

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