Tiers of webOrigami Programming

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Abstract

The world wide web is an important knowledge repository for our daily activities, and moreover it is transforming itself to service repository. Many scientists not only publish their results on the web but offer services that accrue from their scientific discoveries and inventions. The webOrigami, under development by SCORE at University of Tsukuba, is one such science service portal that offers services to interested mathematicians and origamists. Its aim is to help them to explore the possibilities of computational origami as well as enjoying the origami art. In this talk I will present the current state of the development of the system, talking about technical problems that we encounter and solutions we came up with.

The state of the art of the web programming technology is far from our satisfaction. It often leads us into many undesired pitfalls as well as security problems. The most serious problem, in our view, is the lack of an adequate computational model with which we reason about web programming and computing. Therefore, I will focus on the computation model for web computing that is based on multi-tiered programming methodology; the computation model with which we are trying to abstract from our programming efforts in constructing the portal.