The missing video out - intuitive creation and modification of shapes

Prof. Marc Alexa

TU Berlin, Computer Graphics

Communicating the mental model of three-dimensional shape to a computer is inherently difficult, because humans lack appropriate interfaces. As a means to overcome this problem I will present interfaces that mimic ways of communicating shapes among humans, namely sketching. As a particular example, I will discuss the details of an over-sketching interface that comes close to the experience of sketching 3D models on paper: strokes are interpreted as a modification of existing silhouettes. The main technical components of this system are the automatic identification of the silhouette part that is supposed to be modified and the fast computation of the necessary deformation.