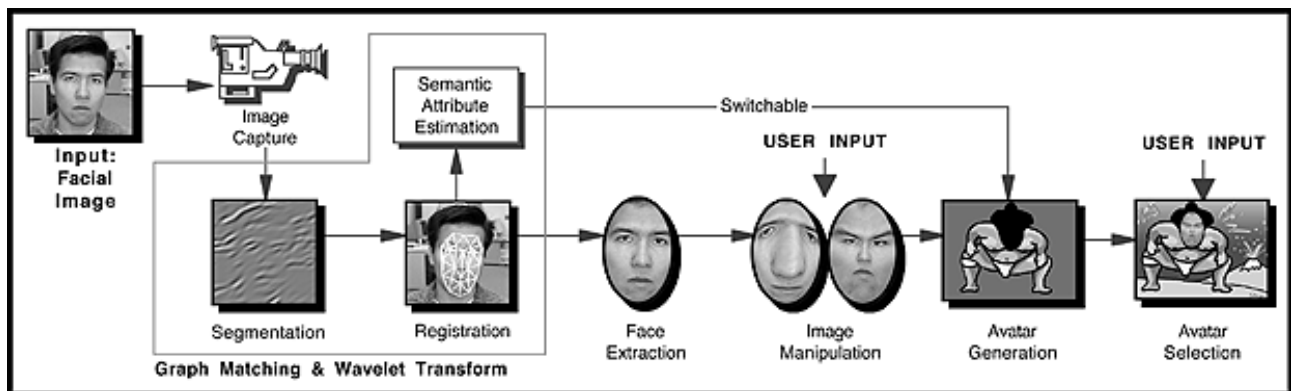


Personalized Avatar Creation using Face Recognition

Michael Lyons and André Plante (1998)

Advanced Telecommunications Research Labs, Kyoto, Japan

Avatars are a user's virtual representation in an online community of cyberspace. In some circumstances it may be important to include personal information about the user in the avatar. It is natural to use the user's face to personalize the avatar, and it is now possible to do this quickly and simply using face detection and recognition algorithms. The Egaokun system uses face processing algorithms to extract the region of the face from an input image and combine it with an avatar body. If desired, high level knowledge of the face can be used to aid the user in the selection of an avatar body. In addition, the face could be caricaturized or distorted for emphasis or comical effect.



The figure above shows a schematic of the processing involved in avatar personalization using the Egaokun algorithm. The image is transformed using 2-D Gabor wavelet features. The face region is automatically registered using elastic graph matching. High-level information, such as the facial expression and gender, may be used to suggest avatar selections to the user. The face is then combined with the avatar body.



The example below was automatically created using the Egaokun system.

Publication about this Project

Avatar Creation using Automatic Face Recognition

Michael J. Lyons, Andre Plante, Sebastien Jehan, Seiki Inoue & Shigeru Akamatsu
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