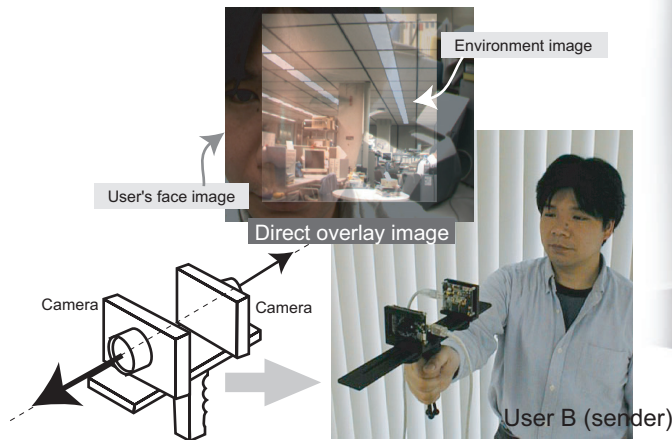


# Layer Display Technique to Perceive What Remote Partner is looking at

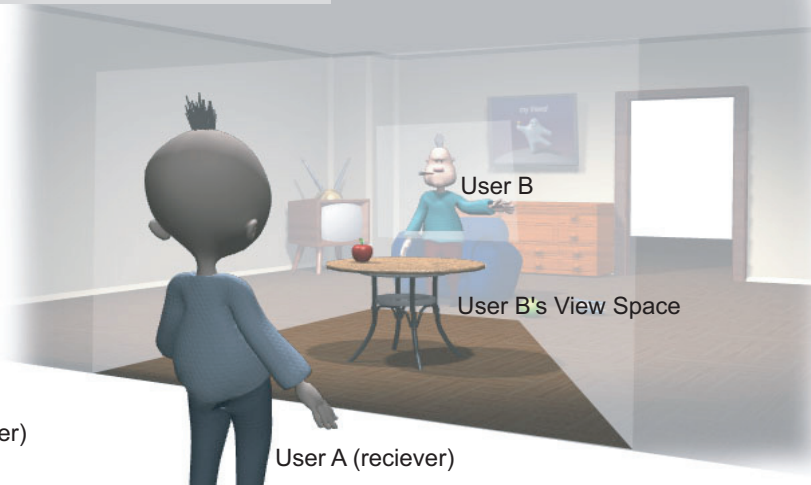
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The performance of remote visual communication systems can be enhanced by providing gaze awareness; one user can perceive what the other party is looking at. To support gaze awareness, we need the user's face images and environment images. This poster proposes the concept of perspective layering to achieve this goal. Cameras are used to capture the user's face image and what he is looking at, and the streams are then displayed on "layered boards" at the partner's terminal.

## Face-to-face communication by using user's view images

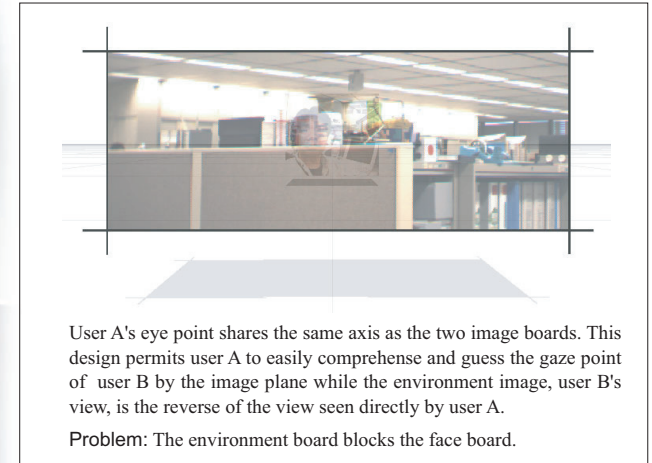


The prototype camera device: The user's face and view images are captured at the same time when the system is held comfortably in the hand.

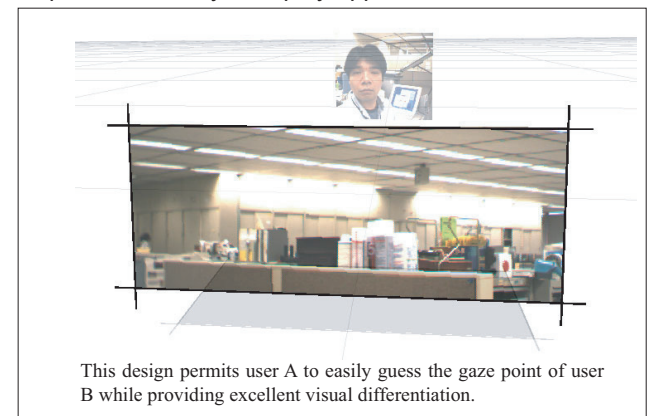


User A sees two image planes: the environment image and the face image. To make comprehension easier, we paste the images on boards that float in a 3D space.

## Simple layer display approach

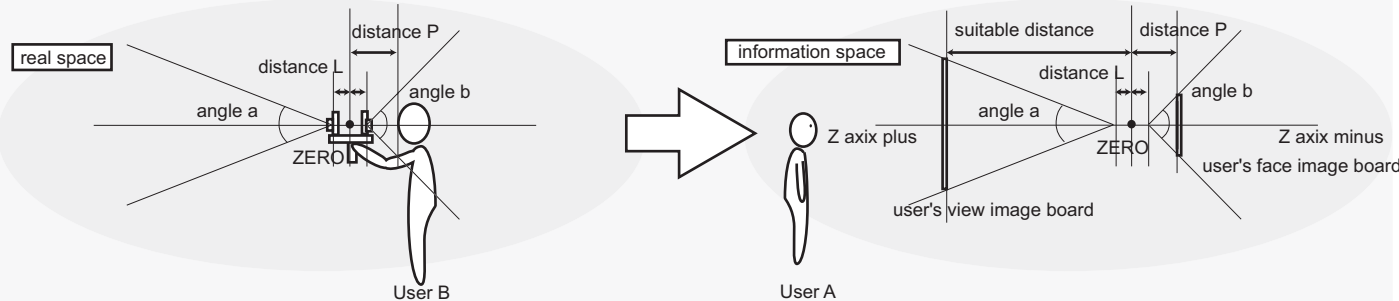


## Perspective view layer display approach



## Proposed layer display model

The arrangement of image planes is designed by taking the way of spatial perception into consideration.



The environment board is slightly transparent and has a frame while the face board is more transparent to better indicate distance from the viewer. The methods of differentiating two overlaid images are to perturb each in a different direction and to use different aspects.

## FUTURE WORK:

We will also evaluate the proposed model in terms of image incongruity and gaze awareness.