

Exploding the Frame: Designing for Wall-Size Computer Displays

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Abstract

High-resolution wall-size digital displays present significant new and different visual space to show and see imagery. I have been working with two wall-size digital displays at Princeton University for five years and directing and producing IMAX films for a decade, and I have noted some unique design considerations for creating effective visual images when they are spread across entire walls. I suggest these "frameless" screens - where images are so large we need to look around to see the entire field - need different ways of thinking about image design and visualization. Presenting such things as scale and detail take on new meaning when they can be displayed life-size and not shown in the context of one or many small frames such as we see everywhere.



These design ideas will be of use for pervasive computing, interface research and design, interactive design, control design, representations of massive data sets, and creating effective displays of data for research and education.

Keywords

Display walls, giant screens, wall-size displays, tiled displays, visual interface, graphic design, high-resolution, visualization, interface design.

Bio



Ben Shedd is an Academy Award winning film and video director/producer/writer of 29 films and videos, including four IMAX films. Fourteen of his films have been about science and technology. Shedd was a member of the original PBS Series NOVA production team at WGBH-TV Boston and worked on the very first NOVA program 30 years ago.

Ben Shedd mixes his production work with university teaching and has held Adjunct faculty positions at four universities and colleges. For the past five years, Shedd has been part-time Senior Research Scholar and Lecturer in the Department of Computer Science at Princeton University where he has been researching and teaching about future media technologies with the wall-size computer screens. This is the 25th anniversary year of the premiere of Ben's Academy Award winning documentary short *THE FLIGHT OF THE GOSSAMER CONDOR*, about the invention of history's first successful human-powered airplane.