**Audio/Touch Access to Paintings using ViewPlus IVEO**

John A. Gardner
john.gardner@viewplus.com
ViewPlus Technologies, Inc.
Corvallis, OR 97333 USA
john.gardner@viewplus.com
<http://www.viewplus.com>

Two dimensional graphical information can be made quite accessible to blind people with "audio/touch". Two dimensional art is one example. The Mona Lisa has been chosen to illustrate such accessibility. A good quality image of the famous painting was imported into the ViewPlus IVEO Creator application and saved as an IVEO Scalable Vector Graphic (SVG) computer file. A tactile image, which can be created in many ways, may be placed on a touchpad connected to the computer where the Mona Lisa image is being viewed with the IVEO Viewer application. A blind person may feel the image and press down for information. Typically an editor will add annotations within the Mona Lisa SVG file that will speak names of various objects on the picture, e.g. left eye, mouth, neck, etc. Additional information may be included, e.g. a description of the smile and why it has fascinated people for centuries. Each SVG file has a file title and description, and the Mona Lisa description can contain a fairly long overview of the painting, importance of various parts, and interesting art history relating to this particular painting. All this information is available to the blind person viewing the IVEO audio/tactile image.

The images shown in this presentation are all made using a ViewPlus Emprint SpotDot color Haptic printer. It produces a full color image and an embossed copy. The default tactile image of anything printed on a ViewPlus embosser has large dots for dark regions and light dots for light regions. This is not a very intuitive tactile image for paintings or for most scenes from nature. IVEO Creator has recently been extended to incorporate fully separate color and tactile images. When printed on Emprint SpotDot, the color image is printed in ink, and the tactile image is embossed. The tactile image is basically an artist rendition of how Mona Lisa should feel tactually and can have myriad interpretations. We have made a very simple contour outline tactile view and show both the full painting and a zoomed in image of her face. People interested in illustrating finer details for blind viewers could create lovely tactile images showing subtle features, the background, etc. These may be difficult for a blind viewer to understand without the audio description, but careful audio/tactile viewing could provide a considerable depth of appreciation by blind viewers. This is a technology in its infancy with many exciting possibilities for future Art Beyond Sight.

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Phone: 541.754.4002
Fax: 541.738.6505
1965 SW Airport Ave. Corvallis OR USA 97333