

## Transform Digital Content to Knowledge Asset

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In this talk I shall present some of our experience on applying multimedia techniques for transforming digital content to interactive virtual exhibition for the museums. For virtually exhibiting 3D artifacts, we have developed a stereoscopic kiosk that consists of two display modules: one touch screen and one stereoscopic display. Through the touch screen, the users can arbitrarily navigate in the virtual museum, select artifacts, and interactively view the detailed information of the selected artifact. Once an artifact on the touch screen is selected, the stereoscopic object movie of the selected artifact will be shown in the stereoscopic display for interactive browsing. We have also developed another system for interactive display of 3D museum artifacts, called the Magic Crystal Ball, which allows the users to manipulate the virtual artifact appearing inside a transparent sphere. For interactive browsing of Chinese paintings, we have used a multi-resolution tabletop display system, called i-m-Top (interactive multi-resolution tabletop), featuring not only multi-touch, but also multi-resolution display that can accommodate the multi-resolution characteristic of human vision. We have extended the idea of i-m-Top and developed a tubular interface, the i-m-Tube, for displaying panoramic image content like the famous Chinese scroll painting “Along the River During the Ch'ingming Festival” . In addition, I'll introduce an interactive artwork, “turning rust into gold,” that intends to build the connection between the museum visitors and the Mao-Kung Ting, a famous Chinese antique in the National Palace Museum (NPM). This artwork is now exhibited in the NPM LOHAS Exhibit at the Future Museum, located at the Taiwan Taoyuan International Airport.