Chapter II
Taking Videoconferencing to the Next Level:
Creating a Model for Museum Virtual Field Trips

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ABSTRACT

The Virtual Outreach Program at the Michigan State University Museum progressed through three stages of videoconference program development while taking museum resources on the virtual "road." This chapter documents the shift from an experts-based model to one focused on learning content through object-based learning and dynamic inquiry in a collaborative community. Revisions in pedagogy, philosophy, and content are explored at each level and supported by the literature and best-practice standards that shaped these changes. Throughout, the museum virtual field trip is presented as a partnership between the classroom, museum experts, and distance-learning providers, working together to create meaningful virtual learning experiences for K-12 students.

INTRODUCTION

What do a mammoth tooth, a log cabin, and a dinosaur bone have in common? A lot, it seems, if you happen to find yourself at the Michigan State University Museum's (MSUM) Virtual Outreach Program (VOP). These objects are part of an effort to connect K-12 students with museum objects to enhance learning and creative thinking. In its first two-year phase, the Virtual Outreach Program served participants nationwide. During this time, the program evolved through different

"levels" of videoconference field trip development and delivery, with the ultimate goal of aligning videoconference programs with the museum's educational philosophies and successful on-site programming, which encourages understanding, interpretation, and respect for natural and cultural diversity.

Prior to the inception of the Virtual Outreach Program, two limitations of the museum's education programs were geography and access. While the MSUM staff provided a wide variety of research-based programs for K-12 schools, sharing these programs with students and teachers who could not physically come to the museum was a challenge. There was a real difficulty in connecting educators with museum experts, especially in rural districts and the Upper Peninsula, where schools are often located too far from museums for traditional field trips. Similarly, urban schools often lack the resources to provide transportation to visit museums. When Michigan's Regional Educational Media Centers put out a call to the state's museums with an offer to provide equipment and work with them to develop electronic fieldtrips for the growing number of schools equipped for videoconferencing, the Museum's Education Division saw the opportunity to overcome the limitations of geography and take their guiding philosophy, which encourages students to learn through *creative expression, critical thinking,* and *personal connection,* on the virtual "road."

The possibilities for new audiences, the lure of technology, and school demand for outreach programs all affected the decision to pursue a distance learning program. As a result, in September, 2003, the Michigan State University Museum launched the Virtual Outreach Program, a distance education outreach using videoconferencing equipment and providing point-to-point programs called "virtual field trips." When a grant from the Institute of Museum and Library Services provided the support for strategic planning and creating the infrastructure necessary to do videoconferencing, general excitement and anticipation about the possibilities for bringing museum resources and experts into classrooms throughout Michigan and the nation began to grow.

This chapter describes the evolution of the Virtual Outreach Program's pedagogy and techniques, beginning with an experts-based presentation style and culminating with a current focus on learning content through presenting and practicing object-based learning and dynamic inquiry. The discussion reviews the three stages of programming, the rationale behind the changes in each stage, and the literature and best-practice standards that shaped these changes. Articulating these stages has provided a model to guide development, pushed our thinking and experimentation with technologies and with techniques, and encouraged us to continue evolving. While there is vast literature in formal and informal education and a growing literature in distance learning, the model we present attempts to define the intersection between the three fields, suggesting that museum-based virtual field trips can be most successful when drawing from all three fields. The chapter provides a platform for discussion between content providers and schools.

A FAST LEARNING CURVE

The Michigan State University Museum provides many different on-site and community-based programs for K-12 audiences. Typical of many museums, these programs range from single on-site visits to multiple visit immersion and off-site programs. The initial intention was to expand the current programming into virtual versions. It seemed natural to take what was already succeeding and adapt it for a virtual audience. Two