AUDEMES: (NON-SPEECH AURAL COLLAGES) FOR CONSUMER APPLICATIONS IN EDUCATION, RETAIL, GAMES AND LOCATION-BASED SERVICES
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Opportunity Overview
We combine short snippets of non-verbal sounds to create riddles or metaphors of ideas. For instance, the sound of a fire siren and the sound of a yodel might combine to suggest "fire mountain" or "volcano." These combination sounds are called "audemes." In five years of research at the Indiana School for the Blind and Visually Impaired, we have demonstrated that audeme games improve learning. We believe that such games, as well as other applications of non-verbal sounds, can provide stimulating, fun and effective enhancements in a variety of contexts, from brain and memory training to audio illustrations for eBooks to board games for the mainstream population.

Markets & Applications
Online, sound-based educational games and reference materials for blind and visually-impaired K-12 students
Electronic Gaming & Puzzles

Competitive Advantage/Value Propositions
These unique educational resources will utilize audemes – short but complex, mnemonic collages of sound effects and music that do not rely upon traditional speech. Audemes are found to significantly
1. Enhance students’ ability to imprint and recall academic information, and have particular utility among populations unable to visually process information.
2. Enhance concept creation/creativity

Researcher Biography

Steve Mannheimer, MFA
Steve Mannheimer was been a faculty member at the Herron School of Art, IUPUI, from 1976 until 2000. In addition to his activities as a studio artist and university professor, Mannheimer wrote a weekly column on art and architecture for The Indianapolis Star for nearly 20 years. He has also directed several large-scale public art projects in Indianapolis, including the memorial to Dr. Martin Luther King, Jr. and Sen. Robert Kennedy in the city’s King Memorial Park.
In the summer of 2000, he began a two-year leave of absence from IUPUI to join Thomson Multimedia, Inc. Within Thomson’s New Media Services division, he was part of a multi-disciplinary team developing new media business concepts, strategies, business plans and technologies. While employed with Thomson, his work included invention of patentable applications, with over 20 patent disclosures filed either individually or as part of the team. In 2010, Mannheimer received a patent for the acoustic interface developed at Thomson: US7752546. In the summer of 2002, he returned to a full-time academic career, joining the Media Arts and Science program in the School of Informatics. His work to advance the acoustic interface and research into non-verbal sound has been supported by grants from Google, the National Science Foundation and the Nina Mason Pulliam Charitable Trust.

Development Plans/Needs

1. Identifying potential partners for commercial development

2. Explore multiple alternate applications for both educational use and general entertainment/gaming