



THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY

LOCATION:
*Silver Spring, Maryland,
United States*

YEAR:
2006

STATUS:
Laureate

CATEGORY:
*Media, Arts and
Entertainment*

NOMINATING COMPANY:
Extreme Networks

ORGANIZATION:

Discovery Communications Inc.

PROJECT NAME:

Discovery Education Project

Summary

Discovery Education's unitedstreaming™ is the nation's most widely used educational digital video-on-demand service and the only one proven to increase student achievement. With over 4,500 full-length, core-curriculum videos chaptered into over 50,000 content-specific video clips, educators have the ability to enhance their lesson plans with rich multimedia content that is correlated to individual state's educational standards. Discovery Education's products and services reach over 90,000 schools across the United States.

Introductory Overview

Discovery Education's unitedstreaming™ technology provides digital video and multimedia-based learning content to students, parents, and educators. Originating from the commitment to improve people's lives by developing and distributing high-quality, effective educational materials, unitedstreaming™ provides a video-on-demand learning experience that has been proven to improve student performance significantly in the subjects of Social Studies, Science, and Math. Unitedstreaming's content delivery platform leverages an advanced search engine, portal, content delivery servers, media players, and download/upload managers to deliver a collection of over 4,000 videos correlated to individual state education standards over an institution's existing infrastructure. Through its public service initiatives, products, and partnerships Discovery Education reaches over 90,000 schools across the United States, serving 1.5 million teachers and their 35 million students each year. Within the last year, the platform has been extended to:

- Discovery Health Connection--an age-appropriate health education and prevention service that provides video and state approved curriculum programs designed to foster healthy lifestyle decision-making, violence and drug abuse prevention, and mental and physical fitness
- Discovery Educator Network-- a global community of educators who share inspiration and resources in an online forum.
- COSMEO --a direct-to-the-home online learning service that allows parents to encourage their child's continuing educational development using videos, interactive games, and homework help.



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Benefits

Discovery Education provides teachers and students a tool to enhance the learning experience in school and at home including:

- Videos and Video Clips: More than 4,500 full-length video programs, chaptered into more than 50,000 content-specific video clips that can be streamed or downloaded directly into the classroom.
- Image Library: An extensive educational, standards-based library of photographs and clip art, searchable by keyword or subject.
- Learning Tools: An interactive calendar cross-referencing videos and images with daily historical events; writing prompts to use with still images; and more.
- Teacher Center: An online center with training resources, lesson plans, video tutorials, tips for integrating unitedstreaming™ material, a monthly newsletter, and much more.
- Administrators have the ability to track the usage and effectiveness of unitedstreaming™. Technology coordinators have the ability to customize unitedstreaming™ to fit specific technology needs.

Discovery Education provides teachers and students a tool to enhance the learning experience in school and at home and has the potential to benefit educators and students globally.

The Importance of Technology

Unitedstreaming™ services help educators teach today's kids in the way they learn best, using media that is proven to deliver a greater impact on student achievement than non-visual, non-technology based alternatives. Through technology, Discovery Education has been able to affect a large base of students, instructor and parents via the Internet and other broadband technologies. Through the use of technology, we are able to manage a vast library of digital assets and cross-reference these assets to curriculum topics and standards of learning using metadata and search engine tools. Technology also allows us to differentiate instruction and provide targeted focus on particular concepts (including individualized instruction) by delivering segmented video that is editable and can be tailored for use in any learning environment

Originality

Unitedstreaming™ offers:

- The largest and most current K-12 digital video/video clip library available today
- The only standards-based, video-on-demand application shown to increase student achievement
- Practical teacher and student learning resources
- Access to a wide variety of producers—Discovery Channel School, United Learning, Standard Deviants, Weston Woods, and many more
- Unparalleled options for customization and local control



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- New content and features continuously added throughout the year

This service is an innovative, online video source for homework help, report research, learning games and much more. With over 50,000 video clips organized by grade level and state curriculum standards, it reinforces the topics kids learn in school, giving them valuable tools for staying on track or zooming ahead. Designed for a generation that has grown up online and surrounded by media, the new service harnesses the power of broadband and media to help kids achieve academic breakthroughs in their homes. It also gives parents a window into their children's education and a door through which to connect with their children about topics they are studying in school.

Success

Two Scientific Studies show unitedstreaming™ increases student achievement:

Two random-assignment, control group studies, conducted in rural Virginia in 2002 and urban Los Angeles, California in 2004, showed significant improvement in Social Studies, Science, and Math performance for students exposed to video content from unitedstreaming™ over those students not exposed to the content.

“Our students were engaged by the high-quality content on unitedstreaming from the very first day—so much so that our teachers were anxious to demonstrate this new resource at parent-teacher conference night,” added Jean Whitaker, principal, Olive Vista Middle School, one of the schools participating in the study. “To see the look on a child’s face when they connect with a concept and share in their joy when they truly understand the subject matter is a wonderfully gratifying experience for all of our teachers. Our Professional Development Committee has already scheduled next year’s extended training on the use of™ with the belief that this powerful tool supports standards-based instruction and will, therefore, result in greater academic achievement.”

Unitedstreaming™ Evaluation Catches the Attention of Congress

In September 2002, Rep. Johnny Isakson (GA), Member of the House of Representatives’ Committee on Education and the Workforce and an architect of the “No Child Left Behind” legislation, invited United Learning to present the unitedstreaming™ application and scientific evaluation results to members of the House of Representatives, unitedstreaming™ was showcased as a model of educational technology with scientific evidence of increasing student achievement.

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Difficulty

Many schools do not have the bandwidth for teachers to download content during peak hours. Discovery Education needed to develop several solutions for those schools that had restrictions as to the hours of the day where streaming and/or downloading video was allowed. Several



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solutions were developed and offered to schools:

- Schools were given the capability to set the hours where streaming and/or downloading of video is allowed (for example: between 8:00 – 10:00 a.m. and 3:00 – 5:00 p.m.). A notice is given on the website to teachers and students that their account does not allow streaming during these hours, and the ability is disabled. This is accomplished through the unitedstreaming Blocktime Editor™ developed by Discovery Education.
 - School districts have the option of using the unitedstreaming™ Network Manager software to transfer video files to a local computer or server via overnight or off-hours delivery. Videos downloaded with the Network Manager are then made available through the unitedstreaming™ interface. When selecting the video, it is pulled from the local computer or server rather than the internet, allowing teachers to stream live video without using internet bandwidth.
 - A final solution is to house all unitedstreaming™ content with no downloading or streaming issues. Local Hosting allows school districts to access the unitedstreaming™ video content from their LAN/WAN. Some advantages of Local Hosting include:
 - Use LAN/WAN to deliver video content rather than the internet
 - The server is kept up to date when new videos are released by the unitedstreaming™ Server Manager software. New videos are transferred via an overnight process.
 - Schools are able to add their own content with the United Streaming Upload Manager.
- Through a variety of new technology developments, schools are offered solutions to receive the necessary content to enhance the learning experience.