

What an experience! "DVD Technology and the Classroom"

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It's amazing how technology has improved in the last decade. I grew up in Kenya and I had not had a chance to see or use a computer. The first time I encountered computer technology was in 1989 when I was a student at Dalhousie University, Halifax and later at McGill University, Montreal. Today I praise God for giving me a chance to experience the power of technology in reaching others.

Last year during the Summer Session at CUC, I attended two courses on technology. The first one was - Computer Technology in the Classroom and the other was Internet in the Classroom. This was an awesome time for me. I learnt so much and I hope that one day I will have the opportunity to apply that knowledge in a classroom situation. Early this year, I attended a DVD training session on Evangelism. I learnt how to use a DVD machine and how to make presentations to people using DVD technology. I loved it and went around many Churches in Montreal preaching the Word of God through DVD technology. I also had cottage meetings in my house with friends coming to watch and listen to sermons prepared through DVD technology. What an experience this was and still is!

I attended a health training seminar on diet and nutrition in June this year. The presenter was using DVD technology and this made the presentation easy and clearly illustrated. DVD technology is here and I would like to see it in the classroom. Teachers, this is a tool that is easier to use than powerpoint presentations. I have talked alot about how excited I am about DVD technology and my ability to use it in preaching and teaching the Word of God. Let us look at what DVD technology is and how a teacher like me can use it effectively in a classroom situation. By the way, this year I will be teaching ecology science, physical science, geography, human biology, and Bible. I am hoping to use DVD technology as well as power point presentations to enhance the learning environment!

What is DVD?

DVD is the new generation of optical disc storage technology. The name stands for Digital Versatile Disc. DVD is essentially a bigger, faster CD that can hold cinema-like video, better-than-CD audio, still photos, and computer data. DVD aims to encompass home entertainment, computers, and business information with a single digital format. It has replaced laserdisc, is well on the way to replacing videotape and video game cartridges, and could eventually replace audio CD and CD-ROM. DVD has widespread support from all major electronics companies, all major computer hardware companies, and all major movie and music studios. With this unprecedented support, DVD became the most successful consumer electronics product of all time in less than three years of its introduction. In 2003, six years after introduction, there were over 250 million DVD playback devices worldwide, counting DVD players, DVD PCs, and DVD game consoles. This was more than half the numbers of VCRs, setting DVD up to become the new standard for video publishing.

Disadvantages of using DVD technology

- Vagueness of the DVD specification and inadequate testing of players and discs has resulted in incompatibilities. Some movie discs don't function fully (or don't play at all) on some players.
- DVD recorders are more expensive than VCRs.
- DVD has built-in copy protection and regional lockout.

- DVD uses digital compression. Poorly compressed audio or video may be blocky, fuzzy, harsh, or vague.
- The audio downmix process for stereo/Dolby Surround may reduce dynamic range.
- DVD doesn't fully support HDTV.
- Some DVD players and drives can't read CD-Rs.
- Some DVD players and drives can't read recordable DVDs.
- Most DVD players and drives can't read DVD-RAM discs.
- Very few players can play in reverse at normal speed.
- Variations and options such as DVD-Audio, DVD-VR, and DTS audio tracks are not supported by all players.

Advantages of using DVD technology

While DVD is the same physical size as a CD-ROM, the similarity ends there - DVD can hold up to 25 times more information, and be up to nine times faster. A CD-ROM generally has a storage capacity of about 650 MB, DVD discs, however, are available in different densities.

DVD, which stands for Digital Video Disc or Digital Versatile Disc, is the next generation of optical disc storage technology. It is very similar to CD, but it has a much higher storage capacity. A standard DVD holds about seven times more data than a CD does. Nearly every movie produced today is available on DVD, and many older movies are being moved to the DVD format. These movies have some advantages over VHS movies. The picture quality is better and many of them have Dolby Digital or DTS sound, which is much closer to the sound you experience in a movie theater.

- **Greater Clarity:** DVD delivers a sharp, crisp image with enhanced audio. The DVD, unlike analog tape, does not decrease in quality every time you copy it.
- **Greater Permanence:** DVD will not deteriorate over time as long as it is stored properly.
- **Greater Flexibility:** There is no rewinding with DVD; DVD can contain chapters of your information that can be accessed simply by pressing play over your desired scene.

DVD allows you to store up to 4.7 GB of photos, video, graphics and data.

What the CD did for listening to music, the DVD is doing for watching movies: bringing high-quality reproductions to an optical format that doesn't degrade every time you use it. DVD video quality is twice as good as VHS tape quality, and one disc can deliver anything from two channels of standard, CD-quality sound to compressed 6-channel surround sound from formats like Dolby Digital and DTS. Most DVDs offer multiple language and subtitle options, alternate sound tracks for an isolated music score (no dialog), or a forum for the director, the writer, the stars, or a noted film critic to engage in running commentary on the onscreen action.

One of the other benefits of DVD technology is higher-than-CD-resolution audio playback. While CDs are recorded using a sampling frequency of 44.1 kHz and 16-bit words, the DVD-Video allows for 96 kHz recording at 24 bits, offering the potential for wider frequency response and higher dynamic range, respectively.

CD's use an old encoding format that has a lot of data repetition. Data is repeated to allow for error correction. DVDs use a new system of encoding that uses much less space for error repetition than CDs.

How useful can DVD technology be in a classroom?

To use in a classroom, what the teacher needs is a DVD-ROM, a DVD player, and a big screen TV set. It is a fact that CDs and DVDs are everywhere these days. Whether they are used to hold music, data or computer software, these optical disc formats have become the standard medium for distributing large quantities of information in a reliable package. The advantages of using DVD technology far outweighs the disadvantages. Unfortunately many of our Adventist schools are short of funds. Our school is downsizing because of limited funds this year, but I hope that with God's help and creative fundraising, DVD technology will become a reality in our school. I believe that with God all things are possible and I will not stop thinking big for my students and school. Movies especially documentary scripts on science and geography would be more useful in the classroom through DVD technology.

DVD technology would do the following in my classroom:

- accelerate, enrich, and deepen basic skills in geography and science
- motivate and engage students in learning
- help relate academics to the practice of today's workforce
- increase the economic viability of tomorrow's workers
- strengthen teaching and teacher research
- contribute to change in our school
- connect our school - Greaves Academy to the world.

To read more on the importance of DVD technology in education and specifically in the classroom, the following sites are appropriate:

- <http://come.to/growup>
- [Running Water](#)
- <http://bart.northnet.com.au/>
- [Discovery Channel School](#)