

Column

Practical, Technical, and Legal Concerns for DVD Use in the Foreign Language Classroom

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There are numerous benefits to using a DVD in foreign language instruction. Students can be exposed to authentic spoken language in an interesting format. Culture is transmitted, whether the material is a documentary, historical fiction, or current comedies. Films can be also be used to teach new vocabulary, for example when showing a film or television program that students are already familiar with in their native language, but are now able to view it in the target language.

From a technological standpoint, DVDs offer many advantages over older analog VHS cassette tapes. Because they are digital, the playback quality of both the audio and video is much better than analog recording formats. Instructors and students have the choice of watching a film with or without subtitles. Many discs offer subtitles in multiple languages, so students can watch a film in a foreign language with English subtitles, with subtitles in the same foreign language as the audio track, or with no subtitles at all. It can be helpful for students who are not yet completely fluent in the language to use English subtitles, or in a culture or film studies course, where many students may not have knowledge of the foreign language.

Similarly, the viewer often has the choice of different audio tracks while watching a film on DVD. DVDs released in the United States or Canada typically feature English, French, and Spanish audio tracks and subtitles, while DVDs released elsewhere in the world often feature even more languages as subtitles or audio tracks. I have purchased a few European versions of American films that have over 15 subtitle options!

Another advantage to using DVDs in the classroom is that it is easier to show excerpts of films and to jump quickly to a desired scene or scenes without waiting for the fast-forward or rewind function of a VCR. It is usually possible to select specific scenes directly from the disc's main menu.

DVDs can be advantageous over online media such as video clips from YouTube or similar websites, or live streaming broadcasts from television or radio broadcasters delivered over the Internet, in part because many classrooms may not have an internet connection or the bandwidth may not be sufficient to stream Internet video at an acceptable quality. With live streaming video or audio, the instructor cannot be sure that the material presented at any specific time will be beneficial to the class topics or

appropriate for a given age group. In addition, the copyrighted nature of many films or television programs ensures that they are not available legally over the Internet. Some materials of an educational nature, such as documentaries, may not have a wide enough audience to warrant being placed in an online format. It is increasingly common for online materials to disappear without warning, either due to copyright violations or financial concerns, such as the costs of hosting such materials on a server. A video clip that you use for one course may no longer be available the following semester, or even the following week. Having the material on a physical disc ensures that the material can be used in any classroom with a television or LCD projector, and DVD player or PC with DVD-ROM drive. The instructor does not need a broadband internet connection to build lessons around the video content, nor to display the material in the classroom.

As with any technology used for educational purposes, there are potential problems that should be anticipated, so that they are not disruptive in the classroom. Whereas it is relatively easy to make copies of VHS cassettes, there are several measures in place to prevent copying DVDs, because a digital copy is a perfect copy and content producers fear a loss of revenue. It is beyond the scope of this article to discuss copying DVDs, and in most cases within the United States, it is illegal to do so because of the Digital Millennium Copyright Act ([U.S. Copyright Office, 1998](#)). Most DVD players include the Macrovision anti-copying feature. If you attempt to play a DVD through a VCR, the picture may fade in and out or the DVD's video may not display at all. This prevents most users from copying a DVD onto a VHS cassette. Thankfully, it is relatively inexpensive and easy to equip a classroom with a DVD player, or to use a laptop and a portable LCD projector.

The biggest issue to overcome regarding the use of DVDs in the classroom, and in particular a foreign language classroom, is the regional encoding present on almost all DVDs. DVDs are assigned a regional code, depending on which country they are produced in and where they are intended to be sold. A DVD can only be played on a DVD player that has the same region code. Thus, a DVD sold in the United States or Canada can only be played on a DVD player sold in the United States or Canada, and European or Asian DVDs can only be played in Europe or Asia, respectively. The United States and Canada constitute region 1; most of Europe, the Middle East, Egypt, Japan and South Africa are region 2; Southeast Asia is region 3; Mexico, Central America, South America, Australia and New Zealand are region 4; most of Asia (excluding China) and Africa are region 5, and China is region 6. Region 7 is reserved for future use. There is also region 8, used for cruise ships and commercial aircraft that travel internationally, and region 0 (zero), which should work in almost any DVD player, regardless the region setting of the player.¹ Region 0 DVDs are typically documentaries or educational programming for which the producers are not so concerned about where the films are used.

This encoding system was originally established to prevent individuals from importing a Hollywood blockbuster into another country, before it was released in that country with subtitles or synchronized audio specific to that country, in part to prevent bootlegging or loss of box office ticket sales. In this way a studio was able to control release dates, content and prices for different regions. Even though movies are now often released around the world on the same day, be it in the theater or on DVD, the regional encoding system remains an issue when trying to show foreign content in the classroom, especially when many of the films that an instructor might wish to use in a class will never be released outside of their native market. Thus, even though an American instructor of French may purchase an award-winning film in Europe, when he or she returns to the United States he or she is typically unable to view the film at home or in the classroom. A quick look at the Netflix.com website ([Netflix n.d.](#)) gives a good overview

of which foreign films are available in the United States, typically with English subtitles, or a choice of the original audio track or an English audio track. Netflix is particularly helpful because it sorts foreign films by language, country of origin, and genre. Because these are the region 1 releases of foreign films, these DVDs can be played without any technical issues in North American homes or classrooms.

There are several ways to overcome the challenge of playing foreign-produced DVDs in a U.S. classroom: some very easy, some which require more technical competence, some very inexpensive or even free, and some costing hundreds of dollars. Solutions to regional encoding fall under three categories: hardware solutions, software solutions, and a combination of hardware and software solutions. Issues that plagued users of VHS cassettes, such as NTSC, PAL or SECAM formats, are typically not an issue for DVD playback, even though DVDs may be labeled with a specific format (NTSC or PAL). While multi-region VHS videocassette recorders may cost hundreds of dollars and are increasingly difficult to find, solutions for playing international DVDs are often less than \$50 US.

On a Windows-based personal computer or Apple Macintosh, it is possible to change the region settings of a built-in DVD-ROM drive up to 5 times. After the fifth change, the region setting of the DVD-ROM will be locked, and can no longer be changed. Although some users have purchased two computers, for example, one to play films from region 1, and another one to play films from another region, this solution is not ideal due to the cost of purchasing a second PC or laptop.

There are several software solutions for personal computers. One of the easiest to use is DVD Region+CSS Free, from Fengtao Software ([Fengtao n.d.](#)). This software, which currently costs \$39.95 US for a digital download, works as a Windows system driver, telling both the DVD-ROM firmware and the playback software that the DVD has the appropriate region code for playback. Due to the price per copy, however, this software solution may not be an ideal solution for a laboratory with multiple computers or a classroom building with multiple SMART classrooms. Using this software to play back films is legal in the United States; however using the software to copy DVD videos is probably illegal under the Digital Millennium Copyright Act.²

Another option for personal computers is to update, or “flash,” the DVD-ROM’s firmware, with a version that has no regional specification, which is known as RPC-1. Updated firmware is not available for every DVD-ROM drive, and is usually not an option for Macintosh computers at all, but a good list of drives that can be flashed, and links to firmware upgrades is available at [forum.rpc1.org](#). Flashing the firmware of a DVD-ROM drive usually voids the warranty, and may result in a drive that is no longer usable. Take care to read and follow carefully any instructions which are included with a firmware update. In many cases, a DVD-ROM which has been flashed to RPC-1 will only play back video properly in conjunction with a piece of software for Windows called DVD Region Killer, available as a free download from several internet sites.

For standalone DVD players (to connect to a television, but not built in to a computer), the best solution is purchase a DVD player that can be hacked³ through the use of updated firmware or a code entered via the player’s remote control. These modifications not only remove regional restrictions, they may also disable the Macrovision software that prevents DVD video from being played through (and recorded by) a VCR. In my experience, more expensive players from high-end producers such as Sony and Panasonic cannot be altered to allow playback of DVDs from all regions, but less expensive DVD players often can be altered. Usually this is because the less-expensive players are intended to be sold all over the world, thus they need to be capable of handling all regions, while the more expensive models

are intended only for sale in North America, for example. I have had great success with DVD players from manufacturers such as Coby, Apex, and Philips. Before purchasing a DVD player, it is advisable to check online whether or not that specific model can be modified to enable playback of DVDs from any region, by entering search terms such as region-free and the model number into an Internet search engine. Several good sources for information regarding specific models, including step-by-step instructions for using the remote control to enter a code to modify a DVD player's capability to play DVDs from any region, can be found at www.videohelp.com/dvdhacks (VideoHelp.com, n.d.).

These modifications involving remote control codes typically have less potential to damage a DVD player or make it unusable than upgrading firmware does. Another advantage is that because of these players' low cost, it is less expensive to equip classrooms or language labs with them, and if one is damaged or stops working, it costs much less to replace than a more expensive model. For example, models from Philips or Memorex that can be modified are available at popular mass-merchandise stores such as Wal-Mart, or electronics stores such as Best Buy and Circuit City for under \$60, and Coby DVD players can be found at drugstores such as Walgreens or CVS for under \$30.

In the last decade, two new competing formats for high definition DVD players have appeared: HD-DVD and Blu-ray. These new formats have a greater storage capacity per disc than the older DVD format, allowing for a high definition picture with a greater resolution than DVDs. While it appears that the Blu-ray format has won out (HD-DVD players are already considered obsolete and no new media is being released for that format), at the present time the Blu-ray players are still prohibitively expensive (\$200 and up) for most language centers, the price of individual Blu-ray films are higher than for a DVD of the same film (typically \$20 or more) and the selection of available film titles is much more limited than for the older DVD format.⁴ These newer standards have stronger encryption methods (High-Bandwidth Digital Content Protection, or HDCP) and are sometimes incompatible with analog display devices. Blu-ray players also use a regional encoding format consisting of three regions. It is beyond the scope of this article to discuss the newer formats at any great length.

Technical and cost problems are not the only concerns with regard to the use of DVD videos to a foreign language class, or to any class. There are several legal issues to consider when showing any movies in a face-to-face public setting. While it is considered "fair use" in the United States to show a film in a classroom setting to students who are enrolled in a given class, it is not legal to display a film as part of a "movie night" or "language club" meeting, without the express permission of the copyright holder of said film. Usually a fee must be paid to the film studio, and failure to do so can result in thousands of dollars in fines to the educational institution.

The Digital Millennium Copyright Act of 1998 specifically outlaws the bypassing of encryption measures meant to prevent copying of copyrighted material in the United States ([U.S. Copyright Office, 1998](http://www.copyright.gov)). This includes removing regional encoding or other encryption measures in order to make a digital copy of a DVD. Thus, while changing a DVD player's settings to allow a DVD from any region to play is legal, modifying the DVD itself is illegal. While there are multiple software packages available to copy digital media, and copying media to make a personal backup is legal, breaking the encryption used by DVD producers to prevent copying is a violation of the DMCA.

Current exemptions to U.S. copyright law, established in November 2006, allow encryption to be disabled or bypassed, but only in a very narrow set of circumstances: Audiovisual works included in the educational library of a college or university's film or media studies department, when circumvention is

accomplished for the purpose of making compilations of portions of those works for educational use in the classroom by media studies or film professors ([U.S. Copyright Office, 2006](#)). It is not yet clear if a film history course taught within a foreign language department qualifies for this exemption, but in any case it still does not allow for entire films to be copied after removing the anti-copying encryption, even if only to remove the regional encoding of foreign films. These exemptions are to be revised every three years, next in 2009.

Clearly, DVD video offers many benefits to learners of foreign languages, as well as those doing coursework in cultural studies, film studies, or history, or even for personal enjoyment. In order to make use of the great variety of films that are available domestically and internationally, technical issues need to be taken into account. Overcoming regional restrictions to enable playback of foreign DVDs does not necessarily require a significant outlay of capital or tremendous technical expertise. Issues of copyright, public performance, and fair use in the classroom also need to be considered.

The author is not a lawyer and none of the material regarding copyright should be construed as legal advice. The solutions presented here are legal to the best of the author's knowledge at the time of writing. Laws regarding copyright, fair use and encryption are specific to every country and may change over time. You should consult with the legal department or copyright specialists of your university or school district for questions specific to your situation.

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Notes

1. There is not an actual region zero, rather the disc is marked as playable in every region, 1 through 8.
2. The Digital Millennium Copyright Act (DMCA) makes it illegal to alter, bypass, or break digital encryption schemes, in order to make copies of copyrighted materials.
3. I use the term hacking to indicate the creation of quick solutions to computer problems, or the legal use of hardware or software in a manner which is not specifically intended by the manufacturer, but which extends the capabilities and features of said software or hardware. This should not be confused with cracking, which can refer to illegal removal or bypassing of encryption software or using methods to illegally gain access to computer systems or software.
4. Relatively inexpensive DVD players which "upconvert" a standard resolution DVD picture to display at a higher resolution (1080i) on a HDTV set have prolonged the lifespan of older DVD technology.

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