Closed Borders and Open Secrets: Regional Lockout, the Film Industry, and Code-Free DVD Players

A review of multi-region accessibility on the Philips 642 DVD player By Brian Hu

Print and online reviewers of DVD players tend to evaluate new products given a set of predefined criteria: video quality (playback appearance, high-definition up-conversion), audio quality (compatibility with major audio formats), and connectivity (digital and analog audio/visual outputs). This review of the Philips 642 DVD player will not consider these criteria in part because I lack the knowledge and experience of home theater science, but more importantly, I want to focus on a feature that has been largely ignored by mainstream publications (for reasons that will become clear later): region compatibility. First, I will introduce the reasons for region coding on DVD players and consider some of the debates it has spawned. Then, I will look at how the Philips 642 negotiates this controversial technical arrangement between Hollywood studios and hardware manufacturers. Finally, I will conclude by discussing the political economy of technological "progress" as panicking studios scurry to introduce a new home video format.

DVD technology boasted a dramatic increase in picture resolution and sound quality from VHS, VCD, and Laserdisc. However, as many users became quickly aware, DVD presented some unforeseen disadvantages. Because DVD is a digital format, it can be programmed to include Prohibited User Operations (PUOs) which deactivate certain DVD functions. For example, DVDs can be designed so that users cannot skip FBI Warning menus or advertisements, a prohibition impossible on VHS, which is a linear, analog medium. DVD design also prohibits direct copying; for example, as many users may be aware, it is impossible to simply drag DVD movie files from disc to hard drive. What this suggests is that the digital promise (higher resolution images, crisper sound) comes coupled with digitally programmed prohibitions designed to limit users' control over skipping content providers' messages (i.e. studio advertisements, government messages) and curb the option of duplication.

Another such prohibition is international circulation. When DVDs were originally designed, manufacturers, under pressure from movie studios and software makers, instituted a system of region coding. Under this system, the world's markets are carved into six geographic zones: U.S./Canada (Region 1), Japan/Europe/South Africa/the Middle East (Region 2), Southeast Asia/East Asia (Region 3), Australia/New Zealand/Pacifica/Latin America (Region 4), Eastern Europe/Russia/North Korea/India/Africa (Region 5), China (Region 6). A DVD player coded in one region cannot play DVDs coded in another region. For example, a Region 2 DVD player in France cannot play Region 1 discs purchased in the United States. The primary purpose of region coding, according to studio statements, is to protect geographic windows (*Video Technology News* 9.13). Hollywood films are typically released in the United States first, and then gradually in other markets. To protect distributors of Hollywood films in foreign territories, region codes prohibit DVD users in those foreign countries to purchase Region 1 DVDs for films that have yet to be released theatrically in their countries. Another way territorial rights and geographic windows are maintained via DVD is through subtitles and audio channels. When films are sold for territorial distribution, they are typically sold not simply by

country, but by language. For example, Hollywood studios sell rights to "French-speaking countries" (which includes France and other parts of Europe) together to a single distributor. DVDs which are produced for that region theoretically should only contain French dubs and subtitles. DVDs for "Chinese-speaking countries" for example, cannot have French language tracks because then those DVDs could be sold in France, impinging on the territorial rights of the distributor who owns the rights to "French-speaking countries." Region coding can also help enforce these linguistic territorial rights since Chinese-language DVDs (Regions 3 and 6) are incompatible with French DVD players (Region 2).

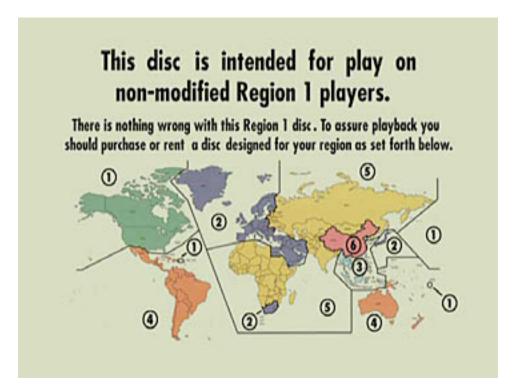
DVD region coding has come under attack from a number of sources. According to a Washington Post article, such prohibitions are a headache in America primarily for immigrants who want to watch films from their homeland, foreign-language students who use films to practice listening skills, and foreign-film connoisseurs who want access to films without U.S. distribution (Luh E01). Region coding also enforces local censorship. For example, the Region 2 DVD in Britain of Catherine Breillat's Fat Girl is several minutes shorter than the Region 1 American version, which accounts for cuts made by the British Board of Film Classification in compliance with the 1978 Protection of Children Act which prohibits films containing underage sex. Similarly, the Region 1 DVD of Stanley Kubrick's Eyes Wide Shut contains the digital manipulations necessary for the film to secure an MPAA R-rating, whereas these manipulations are not evident in non-Region 1 discs. Most damaging for studios, however, is the accusation that region coding constitutes an indirect method of territorial price-fixing, an illegal practice according to many countries' anti-trust laws. In recent years, the European Union and the Australian Competition and Consumer Commission have initiated investigations into whether or not the higher prices of Region 2 and Region 4 discs are artificially higher than those from Region 1. If so, region coding could be blamed for facilitating anti-competitive territorial price discrimination (Sweeting 2001, 12).

All of these complaints against region coding (inaccessibility of alternate languages and uncensored versions, unavailability of obscure or "windowed" titles, higher prices) have led consumers to find alternatives. One route is piracy. Pirated DVDs tend to be "Region 0," or uncoded, and therefore can be played on any DVD player regardless of region. Piracy is international and simultaneous, meaning it squashes any industry attempts at geographic windowing, such that a release (either theatrical or DVD) in the United States could within days be pirated and released Region 0 in practically any other region. Pirated discs are also unquestionably cheaper, as royalties owed to Hollywood distribution companies and producers are foregone.

The second route taken to combat region coding is through "region-free" DVD players. Certain retailers, such as Codefree DVD in Scotland, very early on began selling modified DVD players with region coding disabled. On some early models, such as Sony's DVP-S7000, disabling region-coding was as simple as flipping a switch on the motherboard, and internet sites emerged with detailed do-it-yourself instructions and photographs for turning DVD players "Region 0." DVD manufacturers soon made changes in subsequent models, making "region hacking" more difficult. However, the damage was done, as a culture of region-consciousness developed among early-adopters. The demand for un-coded players was highest in Europe and Asia, where rollout of the initial DVD titles was slower than in Region 1. Through the internet, consumers in non-Region 1 countries purchased Region 1 discs of films yet unavailable in their local markets, and un-coded players were required to view these discs (*DVD Report* 3.22). The problem was exacerbated by debates among DVD producers in Europe over which audio

standard (MPEG vs. AC3) to adopt. However, even after Region 2 discs were introduced, word got out that European versions were of noticeably lower picture quality because higher DVD capacity must be reserved for multiple language tracks, as Europe includes multiple "dubbing countries" such as Italy (*Inside Multimedia* 178, "In Europe..." and "Pretty Pickle"). British supermarket chain Tesco publicly criticized region coding as anti-competitive and proudly advertised its Wharfedale region-free players. California electronics company Apex Digital – followed by others such as Taiwan's Cyberhome – began to make easily hackable players for under \$200 available in major American electronics stores such as Circuit City and Best Buy, beating the major manufacturers in price and region accessibility (*DVD Report* 5.9). These new region-free players became widespread in Europe and Asia and became popular among cult consumers in the United States who rely on Japanese distributors for anime films and television programs, British labels like Artificial Eye for undistributed art films, and Region 3 distributors like Celestial for original-language, remastered versions of Shaw Brothers films.

The legality of region free DVD players has not been challenged, since region coding was not a legal requirement made by DVD Forum, the international association of manufacturers and studios responsible for DVD standards (*Screen Finance*, 1999). On the other hand, the importation of DVDs from other regions (especially Region 1) has been a matter of debate. In the United Kingdom for instance, a store was raided in 1998 for selling Region 1 discs, allegedly because these discs were not licensed for sale in the UK by the British Board of Film Classification (*DVD Report* 3.33). Similar cases have been made against storeowners in New Zealand and Germany (Wakefield and *DVD Intelligence* 3.7-10). Copyright has been an issue in all of these cases, the argument being that selling Region 1 discs in these countries violates the ability of the copyright holder to decide rental and sale dates in each country. Studios have also made it difficult for online vendors to sell discs from one region to consumers in another, citing territorial rights. For example, Miramax bought the U.S. rights for Zhang Yimou's *Hero* but



waited several years before releasing the film theatrically. In the interim, Miramax threatened online vendors who sold any DVD or VCD version of *Hero* – with or without English subtitles, credits, or title screens.³

Studios also responded by putting further playback restrictions on DVDs. In 2000, Warner Home Video announced the Regional Code Enhancement Program (RCE), an "additional embedded code" which would keep their DVDs from playing on DVD players which were region-free. Upon detecting that the DVD player is region-less, an onscreen-message would read: "This DVD player may have been altered and is unable to play this disc... There is nothing wrong with this disc." Columbia Tristar too introduced on-disc measures to combat region-free players with the 2000 DVD release of *The Patriot* (*DVD Report* 5.40).

From the perspective of access, region codes present an enormous barrier. Time is a major issue: in an age of international simultaneity as facilitated by satellite television and the internet, consumers become impatient when products become available to others but not to them. The studios' practice of geographic windowing is a result of a number of factors. First, studios depend on buzz to sell territorial rights to foreign distributors, so a gap between domestic and international release dates is necessary. Second, studios who own foreign distribution companies need time to reposition films to fit each respective market, for example by changing dialogue to fit local tastes or to record local popular songs to include on foreign versions. Third, actors cannot be everywhere at once to publicize a new film. Still, studios are reducing geographic windows primarily to diminish the appeal of piracy: if films are immediately released in theaters, consumers are less likely to buy pirated DVDs and VCDs or download bootlegged films online. However, only the most high-profile films (*Lord of the Rings*, *Harry Potter*) are released dayand-date around the world; geographic windowing is still the more cost-effective and practical practice for most films.

From a cultural perspective, however, region coding presents an access problem beyond inconvenience or impatience. Region coding enforces economic and political censorship by denying the option to see alternative films or alternate versions with alternative languages. In the Fat Girl and Eves Wide Shut examples mentioned earlier, region coding enforces local censorship and makes it illegal – or at least difficult – to import unapproved versions. For foreign film fans, region coding makes it impossible to gain access to films undistributed in one's own country for economic or legal reasons. For an example of the latter, Jean-Luc Godard's Historie(s) du Cinema has famously been undistributable in the U.S. because of copyright clearance issues, and the fact that its soon-to-be-released DVD will be Region 2 encoded serves to keep the DVD from being watchable on American players. Economic reasons (such as territorial distribution rights) also keep certain obscure, difficult, or culturally-specific films from getting American distribution, i.e. a Region 1 release. Immigrants and their families are the biggest victims: mainstream films from home countries (particularly comedies, which do not translate well to the bourgeois foreign film community) typically do not receive distribution in the United States. If home video helps foster an "imagined community" in the diaspora, region coding at worst severs those ties to the homeland and its cultures, and at best, encourages piracy. The most high-profile cases of cultural severance have been practiced by Miramax, famous for buying the American rights to countless Asian action films and stubbornly not releasing them in unaltered versions, if at all. In 2001, Stephen Chow's Shaolin Soccer became the highest grossing film of all time in Hong Kong, and the action comedy became a cultural touchstone in Chinese-speaking communities around the world. Recognizing the film's financial potential in the United States, Miramax acquired the theatrical rights. Not taking a chance with importation of the disc, Miramax prohibited popular online retailers like Yesasia.com to sell the DVD to customers in the United States.⁵ When Miramax finally decided to release the film in

2004, the film was re-edited, re-titled, dubbed, and all Chinese text was digitally altered into English. Under pressure from fans, the title was changed back and the English dub was scrapped in favor of English subtitles, but the other manipulations persisted. To date, this altered, de-Sinified version is the only one legally available in the United States. And while the Hong Kong version of the DVD has both Cantonese and Mandarin audio options (to satisfy both demographics) as well as Chinese subtitles, the American release contains only Cantonese and English dubs and English subtitles, making the film incomprehensible to Mandarin-speaking immigrants who can't understand or read English. Finding an alternative is punishable by law.

Of course, immigrants, art-film buffs, pirates, foreign-language students, educators, and impatient fans have found ways around region coding. Region-free DVD players – or at least easily modifiable players – are everywhere; for those who care, unofficial access to the world's films is an open secret. In fact, many players (perhaps yours included) available at regular electronics stores are "hackable" with the help of instructions easily found online. These players tend to be lesser-known brands like Cyberhome or Malata; steer away from players by Sony which, as an owner of several film studios and distribution companies in multiple countries, has a stake in maintaining regional boundaries. Websites such as the wondrously up-to-date and comprehensive DVDBeaver and magazines such as *Cinema-Scope* (which features Jonathan Rosenbaum's column "Global Discoveries on DVD" in every issue) keep fans aware of what is available in other regions, as well as where one can find DVDs with more special features and better image quality. Ebay is a treasure trove for DVDs from all regions, as are Amazon.co.uk, Amazon.fr, Amazon.jp, etc.

I have chosen to review the Philips 642 DVD player because it happens to be the one I own, selected after conducting informal research online for an affordable player that "plays everything." This is not meant as an endorsement of this specific player or brand, but rather an illustration and discussion of the ways the Philips 642 presents its "open secret" to consumers.

Purchased at a Best Buy in Los Angeles, my Philips 642 plainly states on the back of the system and on the box that the player is Region 1 coded, and upon hooking it up to my television, it appears to be so, rejecting my Region 3 copy of Lau Kar-leung's 36 Chambers of Shaolin with the words "WRONG REGION" in the upper left corner. Buried in the "DVD Hacks" section of the helpful website VideoHelp.com (as well as in the player's product information section on Amazon.com) are simple instructions on how to unlock the player. Like many other low-end players, the Philips 642 is modifiable without tampering with the hardware. Instead, one only needs to press a sequence of keys on the remote control to set the regioncoding free. Looking at the comments on the VideoHelp.com page, I found that the sequence "7, 8, 9, OK, 0" ("0" standing for "region zero," or region-free) works when the DVD tray is open, although some users complained that this did not unlock the player. One possibility could be that the password only works for certain firmware versions of the player. (Unlike analog machines such as VHS, DVD players are a kind computer, and firmware is the set of instructions telling the computer how to function.) After connecting my player to the television, I opened the DVD tray by pressing eject. Then I pressed the "7" key, followed by "8," "9," "OK," and "0." After closing the DVD tray by pressing eject, I re-opened it, popped in my Region 3 disc, and smiled triumphantly as my player successfully loaded the film.

Significant is how "hacking" this player is simultaneously simple and potentially confusing. This paradox is at the heart of region-hacking's status as an "open secret." With the DVD tray open, I press "7," but "7" doesn't appear onscreen, as one would expect when

operating the system normally. Instead a small icon of a hand appears, signaling that I have entered an illegal operation (as when you press the "Angle Change" button on DVDs that don't have that option). The same icon appears when I press "8," "9," and "OK." Having the hand appear tells the unwary user who has accidentally pressed a button with the tray open that nothing is happening – or nothing *should* be happening. In this way, the player feigns ignorance when you unsuspectingly stumble upon the entrance of the hidden door. After pressing "0," the number "0" appears near the bottom of the screen. After a couple of seconds, the "0" disappears as enigmatically as it appeared. No words accompany the number – no "You have successfully changed the region" or "Region 0" appears onscreen. For those who don't know what they've done, there is no clarification. The only way to know that the region has been changed is to insert a DVD from another region. Therefore, successfully changing the DVD region is only evident to the user who is already part of the culture of owning DVDs from other regions; in other words, it is a secret known only to insiders.

But while the cryptic presentation of region-manipulation makes the procedure seem to be a secret, there is no question that the password is out in the open. Unlike some players, the Philips 642 does not require special equipment or technical proficiency to hack; its simplicity and straightforwardness means that the manipulation is open to all, not only to technicians and repairmen. The only cultural capital necessary is the knowledge of how to find the password online. There is no indication that any outside party has asked VideoHelp.com to take down user-posted passwords, the earliest of which date back to April 2004. Philips does not advertise its player's hackability on its packaging or product description, but it certainly doesn't mind that a major retailer like Amazon includes the region-switching password on the product page. In fact, the player's reputation for "playing everything" has made it one of the most popular region-free players among international DVD enthusiasts. Websites that post the player's password (including this one) essentially provide free advertising for a feature that costs Philips nothing. The openness of the secret thus also has economic benefits for the manufacturer.

Region code bypassing is only one of several ways the Philips 642 provides users greater accessibility. The player also has a built-in PAL/NTSC converter, meaning that DVDs made for PAL televisions (which are the standard in Europe, China, and other major markets) can be played on NTSC televisions (the standard in the U.S. and East Asia). PAL/NTSC was an older way to control the movement of VHS across geographic regions; the key difference compared with region coding is that PAL and NTSC are different technological standards, while region coding is an artificial digital restriction placed on the technology to explicitly limit its usability. The Philips 642 also plays burned CDs containing video files encrypted with the DivX codec (not to be confused with DIVX, a failed video format introduced in 1998). DivX is primarily used for shrinking large video files ripped from DVDs into sizes that can fit on CDs and that can easily be transferred on the internet. As such, it is the preferred format for illegally transferring movie files online. However, like mp3, it is a compression technology and has use-value beyond piracy. Regardless, illegally produced and transferred DivX files have been the primary way that young fans in America watch movies, soap operas, anime, and music videos from other countries, all of which are unavailable in any other format in the United States. The Philips 642 can decode DivX when burned on standard CD-Rs. Newer firmware versions of the Philips 642 can also read and play text-based subtitles. Since many of these pirated soap operas and anime programs are not originally subtitled in English, members within these fan subcultures make their own subtitle files ("fansubs") which can easily be paired with video files and played on players like the Philips 642.

The fact that the "secret" of region-free has gone uncurbed for so long suggests that the Hollywood film industry has given up on battling the programmers, subcultures, and rebel manufacturers on this issue. Unlike the disabling of copy-protection – region-hacking's more notorious relative – which violates the Digital Millennium Copyright Act of 1998, enabling consumers to bypass region coding is legally ambiguous, and more importantly, region-hacking doesn't cost the movie industry quite as much money as piracy does. Efforts to combat region-free DVD players such as the Regional Code Enhancement Program (RCE) were ultimately fruitless against players like the Philips 642, because RCE makes discs unplayable on region free players, but not on players which are region coded but whose regions can be changed to fit the DVD, as is the case with the Philips 642.

So if region free is such an open secret, why do I make this fuss about region free DVD players, studio greed, and cultural politics? The story of region coding does not only tell us of fan agency against the Hollywood behemoth. It reveals that what we're told by studios and manufacturers to be the benefits of digital progress – crisper picture, higher capacity, increased convenience – are simply selling points for a technology that gives content makers greater control of users' behavior and choices. This use of technology is increasingly becoming clear as Hollywood studios rush to replace DVD with the "next generation" in home video: HD DVD and Blu-Ray DVD. Promised to have even more capacity (30 Gigabytes for HD DVD and 50 for Blu-Ray, as opposed to DVD's 9.4) and stunning high-definition video, these two competing technologies (Universal and Microsoft support HD DVD, Sony, Fox, Disney are in the Blu-Ray camp, while Warner Bros. and Paramount support both) are slated for a 2006 public release. The rush to get one format out before the other has been stymied by delays, allegedly due to the ongoing development of stricter anti-piracy technologies and standards (Netherby, Fulton, Fisher). The problems seem to surround the implementation of Advanced Access Content Systems (AACS), an encryption standard developed by Hollywood studios and other content providers and manufacturers to restrict playback and prevent the copying of either HD DVD or Blu-Ray. AACS would require HD DVD and Blu-Ray players to be connected to high definition televisions via a secure digital connection called High Definition Multimedia Interface (HDMI), otherwise image quality will actually be downgraded from 1080 resolution (the reason you would buy a HDTV) to 540 (only marginally better than DVD's 480) (Edwards, Sweeting, 2006). That content providers would actually *limit* the technological benefits of the medium (high definition image quality) shows that the new digital format in actuality is not provided to consumers as a technological improvement, but is introduced as a tool to further protect the interests of panicking studios. New digital technology – described to consumers through the sparkle of scientific progress and the discourse of technological evolution – is thus the terrain on which anti-piracy is fought. Consumers are silently offered a rude ultimatum: we have the improved technology, but if you want access, you must play by our new rules, just as you did with DVD. But as with DVD, there will be resistance, and the solutions – if any – will be whispered as open secrets online.

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¹ Region 7 is for unspecified use, while Region 8 is for airlines and cruise ships.

² See DVDBeaver's comparison for more details. < http://www.dvdbeaver.com/film/DVDCompare6/fatgirl.htm>

³ For an angry testimonial, see "MiramAxe Backstabbed this Site," *Monkey Peaches* (August 14, 2004)

< http://www.monkeypeaches.com/040814A.html >.

⁵ Try searching for "Shaolin Soccer" in the U.S. version of Yesasia.com (http://us.yesasia.com/en/index.aspx) and compare with the results of the same search on the Hong Kong version of the same retailer (http://global.yesasia.com/en/Index.aspx).

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⁴ For more on this issue of strategic marketing and repackaging, see the chapter "Getting the Audience," from *Global Hollywood 2*, by Toby Miller, Nitin Govil, John McMurria, Richard Maxwell, and Ting Wang.

⁶ DVDBeaver offers some convincing reasons to "go region-free." < http://www.dvdbeaver.com/film/why-go-region-free.htm>

⁷ See Amazon's listing at http://www.amazon.com/gp/product/B0002NYM3G/ref=olp_product_details/002-1630812-5083226?s=electronics&v=glance&n=172282

Aspects of RCE is explained on the website DVD Talk. In addition, information is provided about what DVD players work around RCE and which allow users to jump over the RCE lock. http://www.dvdtalk.com/rce.html
Reports suggest that Blu-Ray, unlike HD DVD, will adopt a region coding system, modified from DVD. North and South America and East Asia (except China) will be Region 1, Europe and Africa will be Region 2, and Russia, China, and "other" will be Region 3. "BluRay Region Coding Announced – Japan & US Same Region Code," CDRInfo (December 28, 2005) http://www.cdrinfo.com/Sections/News/Details.aspx?NewsId=15908. As with all other reported specifications stated in this article, Blu-Ray and HD DVD details may change up to (or even after) the rollout of initial players and discs. I have never used or tested a Blu-Ray or HD DVD player.