

When the call came, I proposed Flow panel questions based on the research questions I myself used for a manuscript now in revision (with Wesleyan University Press) called *Music and Cyberliberties*. I address this panel's questions in that text. But here, I am going to try to bring the solicited questions about popular music and DRM around to the topic of television, which is the primary theme of the conference.

I offer two topics that pull together the Flow research interest in television most closely together with new interest in digital rights management as an abusive technology practice of the culture industries. They also engage with traditional media studies interest in open access and promoting the sharing of culture and knowledge. My two topics are the TV broadcast flag debate and the proposals for unlicensed cognitive sharing of TV spectrum.

I propose here that television broadcasting and multichannel distribution, as we have known them, as media and platforms for both audio-visual programming and popular music distribution, are about to be undermined and transformed. The transformations will come by forces from within, and from the outside of the industries. Inside the broadcasting and multichannel TV industries, the institutional actors -- including state bureaucracies, media conglomerates, and mass audiences-- are trying to consolidate Celestial Jukebox controls on TV markets. From the "outside" of the industry -- from the markets for software and consumer electronics, from hackers, from hobbyists, and from cyberliberties and media reform activists, open television standards are being exploited, and innovators are demanding even more accessibility and openness to TV.

Inside the industry, TV networks are still being led, perhaps by the nose, by the MPAA to lobby to introduce copy protections to free over-the-air digital TV broadcasts and cablecasts. This change to the encoding standard for digital TV signals would change the international political economy of television by extending the Celestial Jukebox media regulations of the Internet to television audiences. Outside of the culture industries, pressures are growing from cyberliberties and media reform activists for a change in the technology architectures for television transmission, to decentralize TV production and distribution on the model of WiFi networking.

The standards for the current generation of HD televisions narrowly escaped new requirements of the broadcast flag, thanks to the DC Circuit court's *ALA v FCC* decision of 2005. The Electronic Frontier Foundation wrote at the time, "The court ruled, as we had argued, that the FCC lacked authority to regulate what happens inside your TV or computer once it has received a broadcast signal. The broadcast flag rule [made by the FCC] would have required all signal demodulators to 'recognize and give effect to' a broadcast flag, forcing them not to record or output an unencrypted high-def digital signal if the flag were set" (2005).

The DC Circuit court's overriding the FCC's decision to cave to the culture industries preserved the ability of innovators to manufacture open hardware, such as MythTV, and innovative new digital television recorders such as Elgato Systems, makers of iMac PVR software. Yet, it is safe to presume that record companies and other owners of music licensed for TV play will all press for future HD standards to include the broadcast flag. The MPAA has led a coalition of major networks, other content industry owners, and consumer electronics companies in lobbying for the broadcast flag and against the so-called "analog hole" left, from their perspective, in the middle of an otherwise fully DRMed media universe.

Even as Hollywood and Madison Avenue give up legal victories grudgingly, and with new plans for the next battles, it is important to note now that the successes by cyberliberties activists on behalf of consumers and innovators in the TV broadcast flag struggles were important new cyberliberties that were legitimately won. They are also still an incomplete set, with even more cyberliberties ground for consumers, innovators, and free speakers that is at stake. The social institutions of television producing, broadcasting, cablecasting, and viewing are still, at this juncture, politically and technologically negotiable. While this is still the case, music fans should take notice of what is happening in the area of FCC spectrum policy making.

The regulationist model of broadcasting, which includes the existing system of network oligarchs, a weak regulator in the executive branch of government, and an embrace of DRM among stakeholders, should be forced to compete with alternative broadcasting modeled after WiFi. An alternative, unlicensed model of broadcasting based on "cognitive radio technology for low-power unlicensed devices to share [available] spectrum in the [present-day to 2009] VHF and UHF television bands" (Marcus 2005) presents an opportunity for future TV broadcasters to bypass licensing requirements set by the FCC. "Broadcasters" would use WiFi like devices that can share unlicensed spectrum "in between" the TV channels. This variety of "broadcasting" could, juridically, exist in a new free speech zone similar to podcasting in the US, and promote non-commercial, user-generated content.

## References

EFF, 2005. <http://www.eff.org/cases/ala-v-fcc>

Michael Marcus, Unlicensed cognitive sharing of TV spectrum: The controversy at the Federal Communications Commission, *Communications Magazine IEEE* 43(5), May 2005, 24 - 25.