

Standards Battles and Design Dominance

Blu-ray versus HD-DVD: A Standards Battle in High-Definition Video

From 2003 to 2008, Sony and Toshiba waged a high-stakes war for control over the next-generation video format. Sony's technology was called Blu-ray, and had the backing of a consortium that included Philips, Matsushita, Hitachi, and others. Toshiba's technology was HD-DVD, and had the backing of the DVD Forum, making it the "official" successor to the DVD format.^a Both new formats used blue laser light, which has a much shorter wavelength than the red laser light used in conventional CD and DVD players, and thus can read much denser information.^b The technology was intended to deliver a theater-like experience at home, with brilliantly clear video and surround-sound audio, on high-end LCD and plasma televisions.^c The formats, however, would be incompatible. Consumers, retailers, and movie producers all groaned at the prospect of a format war similar to the battle that had taken place between Sony's Betamax and JVC's VHS video standard, three decades earlier. That war had left many bloodied—consumers who bought Betamax players, for example, found that very few movies were ultimately made available in the format, and retailers got stuck with unwanted inventory in Betamax players and movies. The threat of another format war caused many retailers and consumers to delay their purchases of the next-generation players while they waited to see if the market would pick a winner. Fearing a lengthy and costly battle, consumer electronics producers began working on players that would be compatible with both standards, even though that would significantly increase their cost.

By early 2008, Toshiba had lined up several major Hollywood studios for its format, including Time Warner's Warner Brothers, Viacom's Paramount Pictures and Dreamworks Animation, and NBC Universal's Universal Pictures. Sony had its own Sony Pictures Entertainment, Disney, News Corporation's 20th Century Fox, and Lions Gate Entertainment. Both companies also used video game consoles to promote their standards—Sony's Playstation 3 incorporated a Blu-ray device,

whereas HD-DVD was offered as an optional add-on drive for Microsoft's Xbox 360. However, on the eve of the Consumer Electronics Show in Las Vegas in early January 2008, Time Warner announced it would be defecting to the Blu-ray standard. This set off a chain reaction among retailers, leading to Best Buy, Walmart, and Netflix all announcing that they would exclusively stock Blu-ray DVDs. The blow was unexpected—and devastating—for Toshiba. Finally, on February 19, 2008, Toshiba's CEO, Atsutoshi Nishida, conceded defeat by publicly announcing that Toshiba would no longer produce HD-DVD players, recorders, or components.^d

The real question, however, was whether Sony's Blu-ray victory would turn out to be long lived. On September 12, 2008, a consortium of tech heavyweights (including Intel and Hewlett Packard) announced that they were working on a set of standards to make downloading movies fast and easy. By late 2009, streaming was growing rapidly. In 2011, sales of Blu-ray discs topped \$2 billion for the first time, but sales of streamed movies were growing much faster.