

March 2009 saw Amazon become a prime-time entertainment company as a follow-up to the launch of its successful Kindle e-book business. They did this by making 40,000 movie and TV titles available to the public online through a paperback-sized device known as the Roku box, which connects your TV to the Internet. Amazon is the second Roku platform content provider, joining Netflix's 12,000 titles that have been available for many months. But why is this little box heralded as "the future of video" by the *New York Times* and others? There are a variety of technical, timing, and user-experience factors that explain it, which I experienced first-hand.

My initial 'out-of-the-box' experience was good. I plugged the Roku into my TV on one end and home WiFi on the other, clicked through a few menu choices for configuration and was ready to watch shows in a few minutes. The interface is simple and lets you easily browse programmes on your TV that you can rent or purchase. My only reservation is a buffering time that seemed to take 20 or 30 seconds before play, and (in the case of Netflix) having to select programming from your PC before watching on TV. At \$99, a price point and value not lost on customers in this economy, the Roku has taken the industry by storm. After being on the market less than a year, it has sales in six figures, according to the company.

Technically speaking

Technically, the Roku is not a set-top box (STB), not a PVR, and competes with DVDs. It is a consumer-ready junction box that delivers streaming video programming to your TV from Amazon and Netflix Internet content servers. It comes with built-in WiFi, an accompanying remote control, an NSP processor for audio and video decoding, and very little local storage. "We don't believe in disk drives," stated Timothy Twerdahl,

Roku VP of Consumer Products, "they fail, they're noisy, and people don't want them in their living room."

Weighing less than one pound, the Roku supports Composite, S-video, Component, and HDMI as well as Standard and High Definition modes at 16:9 720p and 480p (anamorphic). Providers digitise four different bit rates for each piece of content and Roku selects which to deliver based on the customer's broadband speed rate ensuring no delays from re-buffering. A 1 Mbps Internet connection is all that's needed to watch over the Roku—which looked to me the same as if it were a regular broadcast being delivered over my television. The requirement for HD, however, is a minimum of 4Mbps.

Is it IPTV?

Purists formally classify IPTV as a fully managed broadband network service delivered through an STB. By that definition, the Roku box is not officially IPTV. But after using one for a month, it definitely provides a great TV experience. "My understanding of IPTV," says Twerdahl "is that they are managed and therefore *limited* to what they can monetise. But our box is about an open platform and getting whatever you want to." Roku is finishing a Channel Development Kit (CDK) to be



released later in 2009 that will allow any content-provider to easily develop Roku-compliant programming to reach a growing viewership that owns the device.

Based on development efforts that created the Amazon service, the CDK will provide the ability for content providers to publish RSS metadata feeds, cover art, and ratings to their channel on the Roku box. A cohesive look-and-feel across channels will be ensured by developers designing their applications from Roku's library of screen types and templates. An added attraction of building a presence on the Roku platform is that customers are directly addressable through Internet targetability.

These days there are many who tout that distribution (not content) is the key to future commercial success. Maybe that's why Roku is a

Meet the Roku

device whose time has come and why it gets the "just shy of totally amazing" accolades from

HOWARD GREENFIELD REPORTS ON HIS HAND-ON EXPERIENCE OF THE NEW TV DEVICE, BUT CAN'T MAKE UP HIS MIND WHETHER IT'S AN IPTV SERVICE OR NOT.

the likes of Wired. The whole landscape of TV is shifting and all the incumbent and new content providers want to gain influence.

Boxes come and go. Akimbo's \$27m funded venture closed shop in May 2007, and today others such as Vudu and

Verismo vie for the market. Because incumbent and start-up content providers alike want to be positioned for the unplugging of the cable box as the Web begins delivering more and more content to PC, TV, and mobile screens, Roku and other such boxes have an advantage. For now, Amazon is succeeding in its goal to provide an "inexpensive and hassle-free way" to watch movies and TV shows. Time will tell who wins in the web video distribution and monetisation race ahead.

For many, the easiest way to get into a competitive US or global programming market is online. "The broadcast era is over, content is not king anymore . . . distribution is king," says MMAX Enterprises sports channel executive Chuck Vaughn. "Maybe that's a temporary situation," says Vaughn, "but the fragmentation has shifted everything on its head, which is why everyone in Hollywood is nervous." The Roku box proves this point and will no doubt gain market share this year as they add search features and introduce many new big name channels.



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