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Vudu Casts Its Spell on Hollywood

By BRAD STONE
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FOR the last two years, the employees of Vudu Inc. have quietly toiled in a nondescript office in Santa Clara, Calif., in the heart of Silicon Valley. The only hint of the company's plans are black-and-white Rat Pack photos that adorn its walls and oversized models of Gollum and R2D2 that watch over its cubicles.

Insiders familiar with Vudu's hidden magic say that this 41-employee start-up has everything we've come to expect from Silicon Valley: a daring business plan, innovative technology and entrepreneurs prone to breathless superlatives when discussing their new offering's possible impact on the world.

"This is something that is going to alter the landscape," boasts Tony Miranz, Vudu's founder, of the product he plans to begin selling this summer. "We are rewriting economics."

Vudu, if all goes as planned, hopes to turn America's televisions into limitless multiplexes, providing instant gratification for movie buffs. It has built a small Internet-ready movie box that connects to the television and allows couch potatoes to rent or buy any of the 5,000 films now in Vudu's growing collection. The box's biggest asset is raw speed: the company says the films will begin playing immediately after a customer makes a selection.

If Vudu succeeds, it may mean goodbye to laborious computer downloads, sticky-floored movie theaters and cable companies' much narrower video-on-demand offerings. It may even mean a fond farewell to the DVD itself — the profit engine of the film industry for the last decade. "Other forms of movie distribution



Peter DaSilva for The New York Times
The working prototype of a Vudu box, with its remote.



Peter DaSilva for The New York Times
Patrick Cosson, left, Andy Goodman, center, and Prasanna Ganesan, Vudu executives. Before coming to Vudu, Mr. Goodman helped create TiVo.



Peter DaSilva for The New York Times
Tony Miranz, left, who started Vudu, and Edward Lichty, who is the company's chief operating officer.

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are going to look silly and uncompetitive by comparison,” Mr. Miranz asserts.

It is not only Vudu’s disciples who are zealous about the company’s prospects. Every major studio — except, for now, **Sony** Pictures Entertainment — and 15 smaller ones will make their films available on Vudu. And film executives largely wax adulatory when speaking about Vudu. Jim Rosenthal, president of the New Line Television division of Time Warner, says Vudu addresses “the two major issues that people think are getting in way of the growth of digital distribution: they are getting movies onto the television, and they are doing it in a way that consumers don’t have to sit there for two hours waiting.”

Despite such high praise, Vudu faces hurdles. It is wading into a field dominated by heavyweights whose own aggressive efforts to kindle movie downloading over the Internet have largely failed. There is also little proof that consumers care much about the wide selection or instant availability of movies downloaded from the Web, especially if a movie isn’t cheaper than buying a DVD.

Vudu also needs to persuade regular folks to drag another whirring, electricity-guzzling gizmo into their already-crowded living rooms. “Three hundred dollars for the privilege of paying another 6 or 10 for a movie is a high hurdle,” said Nicholas Donatiello Jr., chief executive of the market research firm Odyssey. “Americans do not want more boxes under their TV if they can avoid it.”

Even with such challenges, however, Hollywood itself says Vudu represents a real breakthrough.

“The first time I ever saw TiVo was an a-ha moment, and this was the same thing,” says Jim Wuthrich, a senior executive with Warner Brothers Home Entertainment Group.

“It looks fairly sexy and inviting. This is going to pull people in.”

VUDU is arriving at a time of rapid change in the entertainment and media landscapes. This year, for the first time, a majority of American homes will have a broadband connection to the Web, according to iSuppli, a research firm. That benchmark has reshuffled the cards in the media and entertainment industries.

With versatile data pipes now reaching into most homes, the deep thinkers in Hollywood and Silicon Valley say they believe that television shows and movies — just like e-mail, Web pages, songs and albums — will one day be cheaply and efficiently imported into the home.

The question is when.

For all of their confidence, the new ventures now crowding the digital video launching pad look, if anything, a tad sickly. YouTube, which **Google** bought last year for \$1.65 billion, is an exception: it has attracted millions of users fanatical about watching bite-sized video clips. But services offering longer video content have yet to get much traction.

The Web sites **Movielink** and **CinemaNow** have allowed consumers to download feature-length films to their personal computers for the last five years. Few viewers have chosen to, partly because the pinched PC screen is a lousy place to watch movies. Over the last 15 months, similar movie downloading services for the PC have started from such varied sources as **Amazon.com**, **Wal-Mart**, Google, **BitTorrent** and the Starz movie channel of **Liberty Media**. Bowing to the copyright anxieties of Hollywood, all of these companies encrust their digital media files with cumbersome copyright protection software that often foils computers and frustrates users.

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“Consumers want choice and control, but for long-form video like movies on the PC that is not enough,” said Mr. Donatiello at Odyssey. “You have to get the content to the television.”

Steve Jobs, at least, understands that.

Apple, which has the most successful movie downloading effort so far on iTunes — offering just 500 films from two major studios — began selling a device called Apple TV last month. Priced at \$299, the box wirelessly draws movies, TV shows and music from the computer to the television.

The people at Vudu seem particularly wary of Apple TV: they have bought two to test. But they are betting that movie downloads will ultimately be free from an awkward dependence on the computer, and they think that this could happen sooner than anyone else expects.

“This shift can look very slow in the beginning and very sudden at some moment in the future,” says Alain Rossmann, a Silicon Valley veteran and the chairman of Vudu. “That is the history of technology.”

A graduate of the École Polytechnique, the engineering school in France, Mr. Rossmann worked on the original Macintosh for Apple in the 1980s before starting four Silicon Valley companies over the following 20 years. The last, a software start-up named Phone.com later renamed OpenWave Systems, established a standard for how early cellphones wirelessly connected to the Internet.

Mr. Rossmann left Phone.com in 2001, and three years later one of his former colleagues came to him with an idea. Mr. Miranz, 43, an energetic and persuasive former vice president at OpenWave, started thinking about downloading movies over the Internet after his wife grew frustrated at her inability to find the 1980 miniseries “Marco Polo” at a nearby Blockbuster.

Signing up for Netflix and waiting for DVDs to arrive in the mail, he said, “seemed like settling for a meal of worms in the desert.”

Over the summer of 2004, Mr. Miranz and Mr. Rossmann began discussing a digital download service, and soon watched the first generation of downloading stores beat them online. But they agreed that a truly mainstream movie service would need to originate on the television, not the computer. Mr. Miranz said he was also “obsessed with the idea of instantaneousness” — the notion that consumers, sitting in front of the television, could click a button and play a film without delay, as if a disc were in the DVD player.

Mr. Rossmann approached that challenge mathematically. Sending each ordered movie from a central facility over the Web, he reasoned, would become more expensive the more popular such a service became. Instead, he concluded, peer-to-peer networking — the idea of passing files, or pieces of files, between users — was the most economical and efficient solution.

That technology was behind renegade file-trading bazaars like the early manifestations of Napster and Grokster, that were the bane of the entertainment industries. But it also underlies a new wave of legal Internet video services like Joost and Kontiki.

From 2004 to 2006, Mr. Miranz’s and Mr. Rossmann’s newly formed company — which first went by the name Vvond, and later Marquee — filed 42 patent applications sketching the principles of an Internet movie network that would keep consumers where they belonged: rooted to their living-room couch.

The system, according to interviews and those patent applications, will operate like a traditional peer-to-peer service, but without

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any active participation by users. Vudu boxes that already have a certain movie on their hard drives — say, “The Godfather” — will send pieces of that movie to a nearby box when its owner suddenly gets a taste for the epic Mafia drama.

But to get those movies playing quickly, the Vudu engineers struck upon another notion: using a slice of the digital real estate on each Vudu box to store the beginning portions of each film. They also delved into the science of predictions. When the company determines that a movie is more likely to be rented or purchased — early in its release, for example — it will plant lengthier pieces of that film on unused portions of Vudu boxes in customer homes.

Rajeev Motwani, a computer science professor at Stanford who worked with the Google founders when they were doctoral students, reviewed Vudu’s early plans. “It’s so clever that in hindsight it seems like the obvious thing to do,” he says.

By mid-2005, after raising \$21 million from two Valley venture capital firms, **Greylock Partners** and **Benchmark Capital**, Vudu was ready to begin designing the box itself. Mr. Rossmann said he advised Mr. Miranz to “get some DNA from the company with the closest experience to what we are going through: TiVo.”

TiVo’s set-top boxes have snared a passionate audience over the last decade by offering time-saving utility with a simple user interface. Vudu hired 11 TiVo veterans to help steer product design and manufacture its box. That left Vudu in need of content deals with studios — a challenge that fell to Mr. Miranz, whose ambition and taste for deal-making were suited to Hollywood.

During his first year of regular trips to Los Angeles, Mr. Miranz found the going tough; Mr. Rossmann regularly called from his vacation home in France to express concern over the lack of progress.

But by 2006, Mr. Miranz recalled, the tide had turned Vudu’s way. DVD sales began to stagnate because studios had finally plowed through their entire backlog of movies that could be released on the shiny discs. The success of iTunes was also proving that the digital transition was inevitable and that one powerful player, Apple, could control the market if Hollywood did not find other viable partners. And outlaw services like the pirate Web sites that use BitTorrent technology demonstrated that digital piracy, which had consumed the music business first, now posed a real problem for Hollywood.

The studios were suddenly very ready to talk. Ron Lamprecht, the senior vice president for digital distribution at NBC Universal, which signed the first deal with Vudu in May 2006, said he was enamored by the relative simplicity and intuitive user interface of the company’s box. Universal also liked the system’s security. Vudu’s devices use the same encryption technology inside a cable or satellite box, and Hollywood’s valuable film assets never have to cross the PC screens, where they typically become exposed to the predations of hackers.

“The platform is secure from the moment we provide them content to the moment it shows up in the box,” Mr. Lamprecht said.

With Universal on board, Mr. Miranz signed up Fox, Disney, Warner Brothers and Paramount over the last year. “It’s always nice to see the entire industry getting behind a format,” said Thomas Lesinski, president of Paramount Pictures Digital Entertainment, noting the industry rift over high-definition DVD technology. “When that happens, it has a much higher chance of success.”

Edward Lichty, who left TiVo last year and is now Vudu’s chief operating officer, says the company is “not expecting to be a mass product out of the gate.” But its peer network can be run

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so cheaply, he says, that it needs to have only modest success selling its box, which should retail for around \$300. (A final price has not yet been set.) The company can also someday add television shows, music and video games to its service.

Vudu executives even consider the possibility that their hardware box might eventually melt away, with its services running as the video-on-demand feature in a satellite box, video game console or a new breed of high-definition televisions.

BUT can the little company with big plans even get that far?

In addition to Apple TV, Vudu has to face off against **Microsoft's** gaming console, Xbox 360, which lets users download movies and TV shows. Other technology heavyweights such as **Yahoo**, Google and **Cisco** are no doubt also contemplating how to get Internet video onto television. Even **Netflix**, which built a DVD rental business via mail premised on the idea that movies delivered online were a long way off, is thinking about it. It recently hired a founder of **ReplayTV** — an early rival to TiVo — inviting speculation that it, too, was working on a movie box for the television.

In an interview, Reed Hastings, a founder of Netflix, said he recently met with Vudu to learn more about the company. He would not discuss details of the meeting other than to say: “It’s an open question whether Vudu makes an impact on the world or not — but either way it is emblematic of the Internet innovation wave beginning to wash over television sets everywhere.”