Hopes for Johnny Cash are rising. Bob Dylan is on the way out. And Jennifer Lopez is strong and holding steady.

Few things are as difficult to predict as pop-culture trends. But that is the aim of the Hollywood Stock Exchange, a Web site that gives a glimpse into the future fortunes of stars.

The stock exchange, or HSX, works on an ingenious principle: that trends can be traded in a market as easily as products. It is a game in which users buy and sell "shares" in stars, movies, albums, and the like. If your portfolio is heavy on J.Lo shares and her next project tanks, you lose. But if you were one of the few who saw that Johnny Cash would be experiencing a mini-groundswell, then your portfolio would rise in value.

The Web site (http://hsx.com) is filled with lists of stars and their virtual share prices in "Hollywood dollars" (H $), set by trading among the members. As I write this, for example, Jennifer Lopez is going for H $103.56 while Bob Dylan sells for a mere H$4.06.

Although the money is not real, the results are striking. The trading price in an upcoming film often gives such a good sense of how it will do at the box office that people in the movie industry consult it. This year, roughly half of HSX's Oscar picks were correct, and in past years it has done even better.

The exchange is an example of an artificial market, a phenomenon that is drawing serious scientific interest. Researchers are discovering that artificial markets can be powerful tools with potentially broad applications, from designing opinion polls and more user-friendly products to making stock markets less prone to crashes.

These markets, which are popping up around the Web, provide fascinating glimpses into the future - not just of pop stars but of politicians, world events, and scientific discoveries.

At MIT, researchers Andrew Lo and Ely Dahan, as well as Tomaso Poggio, a neuroscientist at MIT's McGovern Institute for Brain Research, became interested in artificial markets several years ago as a way to understand customers without conducting large market surveys.

Recently, the team set up a market in bicycle pumps. Students were given descriptions of each of the pumps and then asked to trade in shares of them, with the goal of ending up with the most money at the end. The researchers found that the rankings by price were very similar to the preferences found using expensive and extensive market surveys, even though the trading was done among just a handful of students.

This technique could be very appealing to companies, and not just because it is so much less expensive. It could give them a quick way to see how new features, or a new product from a competitor, would be likely to affect sales of their product. Or it could help them identify groups of customers whose needs are going unmet.

Part of what seems to make the artificial market work so well, the researchers say, is that the players quickly learn that the best way to play is to think carefully about what other people are likely to want. And, they note, it doesn't seem to matter that the money is not real - the players fight hard just knowing that prestige is on the line. (The markets often feature a leaders' board.)
One of the most intriguing artificial markets is the Foresight Exchange (www.ideosphere.com/fx/). Here players make bets on the likelihood that all kinds of events will happen, with a range from zero to 100 percent. If the projected event comes to pass by the due date, the shares are worth 100; otherwise, they become worthless. What are the chances that a substantial amount of material will be mined in space by 2040? The market thinks: 53 percent. What are the chances that there will be a human clone before 2005? The market thinks: 40 percent. What are the chances that the mathematics of a game of checkers will be thoroughly solved by 2005? The market thinks: 22 percent.

What fascinates me most is watching how the shifting odds reflect what is happening in society. For example, the recent crisis in the Catholic Church has been pushing up the chances (listed at 13 percent, as I write this) that the Catholic Church will allow its priests to marry. And I don't know why Johnny Cash is on the rise, but I would love to find out.