When Jim Jacobs hears a "ding" coming from his desktop computer, he thinks about discount air fares like the $122 ticket he recently bought for a flight from Tampa to Baltimore on Southwest Airlines.

Several times a day, Southwest sends Mr. Jacobs and hundreds of thousands of other computer users discounts through a new application called Ding, a free program that links the airline directly to passengers in a novel way.

"If I move quickly," said Mr. Jacobs, a corporate telecommunications salesman who lives in Tampa, "I can usually save a lot of money." The fare to Baltimore underbid the airline's own Web site by $36, he says.

When Brent Bowen hears a ding, though, it does not make him think of bargains. Quite the contrary, it sets Mr. Bowen, the director of the Aviation Institute at the University of Nebraska at Omaha and an airline industry watchdog, to contemplating the beginning of a shift in the way airlines set fares.

If matchmaking programs like Ding catch on, industry analysts say, some passengers will find a deal on their airline tickets. But many others - most of them business travelers - might pay more than they have in the past. At least two other airlines, sensing an opportunity to raise profits, are pursuing similar custom air fare systems.

Southwest is promoting Ding, which is available at www.southwest.com/ding, as a tool to help travelers save money. And it does that. Bob Cowen, publisher of InternetTravelTips.com, has been tracking prices on Ding since it was introduced in February, estimated that fares on Ding were lower than those for comparable flights on other carriers by 17 percent, or about $50 a ticket.

But analysts fear it could just as easily go the other way. "Right now, Southwest may be sending cheap fares through Ding," Mr. Bowen said. "That doesn't mean it will always do that."

How could a seemingly innocuous program like Ding herald a realignment of pricing power? At the moment, airlines separate passengers into a dozen or more fare categories, rewarding those who book early with inexpensive rates and raising fares for last-minute travelers.

But as the industry struggles to recover from a cumulative loss of $30 billion since 2000, it is clear that the current reservations and fare-pricing systems are not working as they should. One reason is that customers have learned to manipulate these categories to their advantage.

For example, business travelers, who are the airlines' most profitable customers, can easily secure a cheaper airline ticket by behaving like leisure travelers - either staying over a Saturday night or booking tickets a week before flying.

Custom fares would give the airline industry a lift by allowing it to find the passengers to fill unsold seats more quickly and efficiently. At the moment, carriers try to predict demand for tickets using computer models and then sell them through third-party reservations systems that charge the airlines a fee for each transaction.
A Ding-style system allows the airline to not only communicate directly with customers, bypassing the reservations systems, but also to know much more about those passengers - and to predict with greater accuracy whether they are likely to buy a ticket or not. But a custom fare system also allows an airline to identify customers who are willing to pay more for a ticket, and then send them an offer for a more expensive fare. (Ding does not do that yet, but experts say that is where the real money would be.)

"With this new technology, who you are could be more important than when you book," said Steve Hafner, the chief executive of the travel site Kayak.com. "The more the airline knows about you, and about your travel preferences, the better a job it can do pricing its product to maximize its revenues. It is a seismic shift in the way airlines sell tickets."

Kevin Krone, the vice president for interactive marketing at Southwest, said Ding was technically able to transmit custom fares. But for now, he said, the airline is only sharing bargains with its customers.

If fare customization becomes more common, privacy is likely to be a significant issue. To sign up for Ding, travelers must register with Southwest, providing their ZIP code and home airport locations. That, in itself, is not unusual. Passengers are also encouraged to sign up for Southwest's frequent-flier program, Rapid Rewards, which collects credit card and Social Security numbers (both fields are optional).

Ding's terms and conditions promise that it will handle personal information that it collects "carefully," but it also grants itself an unusually broad license, stipulating that it "may access your computer to perform maintenance on the software and to install updates." That is not uncommon language for a computer desktop application, even if it is somewhat vague. But it is almost unheard-of for an airline.

Southwest's competition is watching Ding closely, hoping to learn from it.

Northwest Airlines is close to having the ability to segment its fares down to the individual passenger. "But if you're talking about sending a private price that undercuts the published fare by, say, $10, I don't think there's much of an appetite for that yet," said Al Lenza, the vice president for distribution and e-commerce at Northwest. "Our published fares are already fairly competitive and priced right."

Northwest offers a Web-based program that allows its frequent fliers to sign up for special offers based on their travel preferences, but Mr. Lenza says those prices are widely available.

American Airlines is also pursuing a fare customization program. It already sends specific fare offers to its frequent fliers based on their preferences and geographic location. "We are looking at other technologies to deliver a customized experience," said Billy Sanez, a spokesman for the airline. He declined to elaborate.

Bob Harrell of Harrell Associates in New York, an airline and travel consultancy, said a consumer backlash against an overload of special offers was possible. "What are the practical benefits of getting dinged by six different airlines on your computer at the same time?" he asked.

But for every problem, there is a solution. Developers are already thinking ahead to solve the clutter problem by developing applications that capture all the "dings" from airlines. Mr. Cowen, the air fare expert, just released a test version of such an application that he created at FareSnipe.com, but Southwest would not let him include information from Ding, at least for now.