



## How to Turn Lookers into Bookers

Review of this cutting-edge eCRM decision -support technology | By Max Starkov

Recommendation engines are eCRM decision-support applications that offer new level of personalization and customized travel recommendations. They are quickly gaining popularity in the travel vertical and becoming essential tools for enhancing conversion rates, increasing revenues and outperforming the competition.

## Background:

Conversion rates (look-to-book ratios) serve as an important indicator of the travel website functionality, the effectiveness of the eCRM tools deployed, the breadth and uniqueness of the travel products offered, the loyalty factors, etc. The higher the ratio, the better. With average conversion rates of 5%-8% for most online travel sites, 92%-95% of the website traffic falls into the category of "Lookers Only", which means that most of your online travel marketing dollars spent are a waste.

Expedia achieved a conversion rate (defined as a percentage of monthly unique visitors who make a purchase) of 7% in 2Q 2001, which was substantially higher compared to the 4.1% in Q2 2000. Travelocity boasts a conversion rate of 8.9% in Q2 2001, based on a different set of numbers: dividing average monthly bookers by average monthly Media Metrix reach (not unique visitors). Whatever the actual true conversion ratio is, turning lookers into bookers is a very expensive proposition. For example, Travelocity's new booker acquisition cost in Q2 2001 was \$38.38, which could hardly be offset by the gross profit per booker of \$26.97.

In my opinion, one of the best applications that can significantly increase the conversion rates of your travel website is the recommendation engine technology. It is a very effective eCRM decision-support tool, which provides customized travel recommendations that best fit the needs of the individual travelers, based on their individuality, interests and preferences. In addition to improving look-to-book ratios, the recommendation technology enhances customer experience and increases customer loyalty, resulting in higher transactional revenues.

The recommendation engine technology has been around for several years now. One such application, Active Buyer's Guide by Active Decisions, Inc. has become the leading B2C product recommendation engine for online shopping. Several years ago Amazon.com pioneered its own recommendation tool, based on collaborative filtering. This technology may still be a novelty in the travel domain, but its adoption is increasing fast.

When Does a Recommendation Engine Make Sense?

My observation is that a recommendation engine is very effective in the following scenarios:

- Multiple destinations, offered by tour operators, hotel brands with resort and vacation club portfolios, travel agency consortia and groups, online travel services (e.g. Expedia), multi-destination and regional DMOs (Destination Management Companies), state CVBs (Convention and Visitors Bureaus), etc.
- Multiple services within the destination, offered by single-destination tour operators and DMOs (e.g. Belgium), large city CVBs (e.g. New York City), destination-centric travel suppliers (e.g. JetBlue and New York City; Virgin Atlantic and London, etc).
- Large travel programs with numerous tour and vacation options, offered by tour operators, airline and hotel vacation brands, vacation clubs, travel agency consortia, etc.
- A variety of local services at the destination: incoming tour operators, major hotel players with strong multi-brand presence in one location (e.g. Marriott), local CVBs, etc.

Non-commoditized travel products, such as packaged travel, vacations, cruises, FITs, escorted tours, etc introduce an additional level of complexity when offered online. Traditionally, travel suppliers that offer such services could expect lower conversion rates compared to the ones of a typical "agency-type" online travel service, dealing mostly with air or hotel only (e.g. Orbitz).

One of the reasons is that when you book air, you already know where and when you are traveling. When shopping around for a tour or vacation, you may not even know where you are going ("Take me

someplace warm"). You may not have decided on the actual country or destination, or the cities/resorts within that destination. You may change your original choice, if presented with a better deal, a more appealing tour or an option offering more fun, more sports and nightlife.

A recommendation engine could become an important tool to facilitate the buyer's decision-making process and increase the conversion rates. It can significantly improve the overall user experience on travel websites focusing on the lucrative leisure travel. Recognizing the benefit of the technology, several big online travel players are already implementing recommendation engines on their websites. Last month Travelocity invested in VacationCoach and licensed its recommendation engine technology. Cendant's Travel Portal also signed a licensing contract with VacationCoach, while Orbitz chose Triplehop Technologies' TripMatcher recommendation engine for its website's new vacation offering, to be launched in October.

#### How Does a Recommendation Engine work?

In many cases your website visitors, who may have made the decision to travel to a general destination (the Caribbean, Europe, someplace warm, etc), have not selected a specific destination. Or have not planned what to do while they are at their selected destination. In the traditional call center business model, travel providers are forced to hire experts with in-depth knowledge of the destinations they offer in order to sell their products successfully. A good amount of expensive sales effort is spent ineffectively to assist customers find the destination that best matches their requirements and preferences, before the booking process can even begin.

In simple terms, the recommendation engine acts as an experienced online sales person that interacts with the customers, learns their preferences, and responds with highly targeted, relevant information and personalized recommendations, supported by rich, original and customized content. Rather than hoping customers find travel products buried amidst tons of offerings, the travel providers can proactively offer destinations, resorts, itineraries and products that best match their customers' preferences.

The recommendation engine includes a knowledge base of the destination(s), proprietary to the travel provider or developed by outside professional researchers to provide a comprehensive range of options and travel solutions for the potential traveler. For each destination, the knowledge base comprises both quantified evaluation criteria and deep text content. The technology interacts with customers and provides highly targeted, relevant information and personalized recommendations. It helps them quickly find a destination, itinerary, tour, cruise, local event or experience that fits best their preferences, interests, objectives, pace, lifestyle, budget, etc.

#### The Technology behind the Recommendation Engine

At the core of the recommendation engine is the matching engine, a cutting-edge, agent-based recommender system technology. By leveraging artificial intelligence, the recommendation engine captures and predicts website visitors' interests through a combination of content filtering, collaborative filtering and click stream analysis.

This technology usually consists of:

- Correlation layer: matches user preferences, interests, objectives, pace, budget etc and runs them through advance weighting techniques.
- Predictive modeling matrix (collaborative filtering): based on what the engine knows about the user, he/she is put into the matrix and assigned to groups of similar, like-minded users. The matrix can then predict what else a user might enjoy or like to see, based on the group's inputs.
- Proximity layer (especially location-centric recommendation engines): after reducing the large amount of choices/options into a relevant subset of information, the location-centric technology

actually selects and builds recommendations based on desirable geographic proximities and itinerary logic, keeping everything very user-efficient (i.e. no uptown/downtown shuffle).

This sophisticated technology has built-in learning mechanisms, so with each interaction it expands its knowledge about each of your website users, generating ever more personalized recommendations. The application is XML-based and wireless-ready.

### Types of Recommendation Engines

There two types of recommendation engines best suited for the travel vertical:

- Destination-centric Recommendation Engines
- Location-centric Recommendation Engines

### Destination-centric Recommendation Engines

The first consumer travel decision is usually where. The Destination-centric Recommendation Engine helps travelers select a destination and funnels customers to products and services that best match their preferences. It is a "where to go and what product to book" type of a decision-support tool.

For example, if your customer wants a vacation at an exotic destination plus snorkeling, leaving from Los Angeles, for a week in February, the engine may recommend Bora Bora as a good fit. It will support this recommendation by providing a rating of the destination and general information about the weather conditions, beaches and snorkeling in Bora Bora at this time of the year. In the same time the engine will recommend the services you for this destination: vacation packages, all-inclusive resorts, local services, island-hopping tours, and any other product you may offer in French Polynesia.

In other examples, the engine may recommend, for the same time of the year and trip duration, twenty different "what to do while in Belgium" trip plans to twenty different customers, based on their personal preferences. Or recommend an escorted tour to one and an FIT to another customer as the best way to see Italy in a week.

TripMatcher, provided by Triplehop Technologies in New York ([www.triplehop.com](http://www.triplehop.com)), is the most advanced and innovative recommendation engine in the travel space that I have seen. The experience of travel sites that have already implemented the TripMatcher, such as [www.ski-europe.com](http://www.ski-europe.com), shows that customers who get personalized recommendations from this application are on average 70% more likely to buy.

Like a seasoned destination expert, TripMatcher supports its destination recommendations by providing rich, original and customized content. TripMatcher includes a knowledge base of over 375 destinations, developed by 250 professional researchers worldwide to provide a comprehensive range of options and travel solutions. For each destination, travel experts have ranked 88 activities during different times of the year. This content can be seamlessly integrated with the travel provider's own content in a matter of days and customized to match the travel provider's specific destinations and products.

I also like another eCRM aspect of this application. TripMatcher uses artificial intelligence and next generation technology to help the travel provider's site become a more personal and effective sales machine. It automatically profiles visitors each time they visit the site. By capturing the unique travel demands of the visitors, such as preferred activities, attractions or timing, TripMatcher builds rich behavioral profiles of each registered user at the most granular level. It utilizes real-time profiling and allows travel providers to get a dynamic snapshot of their customers' preferences, and generate insight to best match customer needs with their product portfolio.

## Location-centric Recommendation Engines

This recommendation technology provides solutions for personalization of local destination content and for the delivery of that content to the end user in the most useful format. It gives travelers a whole new way to plan what to do when they get to the destination. The location-centric recommendation engines are about "what you do when you get there" and focus on the "last mile" of services: local itineraries, accommodations, dining, nightlife, local transportation, events, sightseeing and experiences at the destination.

This application is an ideal tool for any location-centric vendor or organization: tour operators, hotel brands with multiple properties in a given location (e.g. New York City), CVBs and DMOs, airlines and their main hubs (i.e. New York and JetBlue), etc. It allows travelers to find an itinerary, tour, event, performance, restaurant, and experience that fits best their user preferences, interests, objectives, pace, lifestyle, budget, etc.

For example, a customer may ask "Show me what to do in New York City from 9/20, Thursday, 12:00 PM to 9/23, Sunday, 4:00 PM". The recommendation engine will come up with an individual trip plan, with hour-by-hour activities and concrete recommended sights, events, vendors and experiences. This personalized trip plan will be based on the individual preferences (e.g. 40 different interests, lifestyle, leisure time and entertainment preferences) and the assigned weight (varying from "Very Important" to "Exclude from this Trip") of various categories of local activities, such as shopping, dining, sights, attractions, nightlife, etc. Thus, each individual traveler will receive a completely different trip plan for the same city, time of the year and duration. If shopping is very important, then that trip plan will be substantially different from the one where the customer's interests are in the performing arts.

But that's not all: the application allows the travel provider (e.g. a tour operator) to generate revenues not only by selling tours, hotel packages, FITs, or vacations, but also from the ongoing activities of the traveler while he/she is at the destination: from referrals, revenue share, commissions, redeemable coupons, etc. It allows a proactive CVB to direct business to its members.

New York-based iPace, Inc. ([www.ipace.com](http://www.ipace.com)) is a good example of a cutting-edge, location-centric recommendation engine and personalization content management technology.

## Applications for the Travel Vertical

### Tour Operators

Any tour operator that prints at least a 24-page travel brochure is a good candidate for the recommendation technology. The recommendation engine will interact with the customers, learn their preferences, and respond with highly targeted, relevant information and personalized recommendations for a destination, tour, FIT, hotel package, resort vacation or cruise, supported by rich, original and customized content.

This application is ideal for all major carriers' own or private-labeled vacation brands (e.g. Delta Vacations), tour operator groups (e.g. Far & Wide), multi-destination tour operators (e.g. Classic Custom Vacations), large single destination players (e.g. Swain Australia Tours), etc.

### Hospitality

Recommendation engines are ideal for all of the major hotel brands that boast hundreds of resorts and leisure hotels in dozens of destinations and offer a variety of packages, spa and all-inclusive vacations, and local activities, such as golf, tennis, sailing, performances, culinary events, etc. Finding the most appropriate resort or vacation plan quite often is a daunting task. One of the unique functionalities of this

technology is the ability to sift through tons of over-burdening information and deliver tailor-made, highly individualized travel recommendations.

Major hotels' vacation club brands can also benefit from this technology. For example, Marriott International offers a worldwide list of vacation rentals. Hotel brands' own or private-label vacation brands (e.g. Hyatt Vacations) are also natural for this application. Personalization and customized resort recommendations based on individual preferences are extremely important in this segment.

#### Conventions and Meetings:

Recommendation engines are the perfect tools to alleviate a number of non-productive, high-friction destination management activities. The city/destination sets the tone for the event and contributes to both the number and makeup of the attendees. A recommendation engine that powers the association's or conference organizer's website and call center can not only increase the attendance by presenting the destination at its best, but save significant costs by handling all of the tedious questions like "What is there to do", "Can you suggest something for the pre-convention weekend", etc. This application can recommend customized "to do lists", off-site excursions and tours, individualized historic sightseeing and evening entertainment, etc. and provide an additional revenue source from referrals, sales commissions, coupons, etc.

#### CVBs and DMOs

Recommendation engines can personalize the vast amounts of destination information and recommend customized itineraries, sightseeing, shopping, entertainment and nightlife content, combined with instant hotel, restaurant and event information, availability and reservation. A CVB may choose to recommend only member-provided services. Recommendation engines can reduce marketing and administrative costs by eliminating information and call centers, from staff reduction, savings from printed collateral materials and mailing, etc. On the other hand CVBs can also generate revenues from referral fees, redeemable coupons, booking fees, etc.

#### Wireless Applications:

The location-centric and personalization character of the recommendation technology is perfectly in par with the mobile Internet's definition of "location + personalization". Wireless recommendation engines that focus on local services, on the "last mile", on "what to do while already there" will be one of the hottest applications and become a great marketing tool in the hands of pro-active DMOs, resorts, hotel and restaurant chains, and travel providers.

In conclusion, I believe that as an important eCRM decision-support application, the recommendation engine technology should become part of the comprehensive eBusiness strategy of any travel service provider.