

# Walking the tightrope

## *Balancing information and seduction in redesigning the Heathrow Airport website*

Euro IA conference, 21<sup>st</sup> September 2007

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### 1. Introducing us

**Jonathan Culling** is an information architect, user researcher and creative lead with 11 years online media experience. Major clients have been from financial services, travel, telecommunications and entertainment sectors.

He is heading up user experience division for DLKW, having previously worked at Sapient and Agency.com.

His goals are to continue to lead large teams and to provide the creative vision for large-scale projects, and perhaps one day to coach his three children in the dark art of user experience design.

**Giorgio Venturi** is a user experience architect with more than six years of international consulting experience. He has helped his clients (including DLKW) to tackle their user experience challenges by focusing on user requirements, rapid prototyping and usability.

He has been a research fellow in the field of Human-Computer Interaction (HCI) at the University of Bedfordshire and in Thales Naval Netherlands. He presented his work at several international peer-reviewed conferences and journals. His website is [usercentred.net](http://usercentred.net).

His biggest dream is that information architecture and user experience become so highly known by the masses that he doesn't have to spend (typical!) incredible amounts of energy to explain his job.

**DLKW** ([www.dlkw.co.uk](http://www.dlkw.co.uk)) is a Covent Garden, London based integrated advertising agency. The digital side of its offering is expanding rapidly to accommodate recent changes in consumer behaviour. The DLKW user experience team working on this project was Jonathan Culling, Giorgio Venturi and Igor Dutra.

### 2. Introducing the presentation

The website that DLKW redesigned for BAA Heathrow needed to provide users with the information they require to make their journey go smoothly. It also had to support BAA's desire for Heathrow to be seen as an attractive destination for shopping and eating, increasing passengers' propensity to spend money while there.

By taking into account the key information needs of site users and considering the most fruitful points of the user journey at which to cross-sell, DLKW was able to devise a user experience that satisfied these apparently contradictory requirements.

### 3. Project background

#### 3.1. Who is BAA?

BAA, or British Airports Authority, is the owner and operator of seven airports in the UK. It is one of the world's largest transport companies with over 12,000 staff and annual revenue of over €3 billion. It is owned by a consortium led by Grupo Ferrovial, a Spanish firm that specializes in infrastructure.

BAA makes its money from charging landing fees to airlines, and also increasingly from the wide range of shops in its airport terminals.

### 3.2. BAA in the news

During the lifecycle of the project, BAA was increasingly under pressure from the British media. A terrorist strike on Glasgow Airport led to the tightening of the already strict security measures, making the experience of travelling through Heathrow 'more stressful than skydiving' according to one report (see below).

In addition, protests by environmental activists against a new terminal building and an additional runway ensured that BAA was never long out of the news.



### 3.3. About Heathrow Airport

Heathrow is one of the world's busiest airports. In terms of passengers per year, it is Europe's largest and the world's third largest. It has four terminals, with another under construction and due to open in March 2008. Terminal 5 will be the largest airport terminal in the world, and the largest structure ever built in the UK.

Heathrow Terminal 5 will not only be a huge passenger hub, but a massive shopping centre as well, with about 50,000 m<sup>2</sup> of retail space, 350 retail outlets and 75 bars and restaurants. Its opening will set off a huge game of 'musical chairs' in which many flights will be changing terminals. It is vitally important that site users be made aware of these changes, and come to the correct terminal when they fly.

### 3.4. About the current Heathrow website

The current Heathrow website ([www.heathrowairport.com](http://www.heathrowairport.com)) has around 2 million unique visitors per year, with an average visit time of 7 minutes. The most visited areas of the site are the **live flight information** and **security information** (especially in the event of heightened security at the airport).

The profile of a typical user of the site is as follows: Male, 43 years old, mainly from the UK, with a high level of web experience (according to BAA's own statistics).

The redesign of the current website was brought about by the imminent opening of Terminal 5. The first release of the re-launched site is planned for late September 2007, with a second release in January 2008.

### 3.5. The challenge: Information hub vs. shop window

As part of its drive to get passengers to spend more money at the airport, BAA wanted to change passenger behaviour to arrive early for check-in. The site therefore had to inspire users with a wide variety of shops, restaurants and events on show, with Terminal 5 as a flagship. This also implies extending the appeal of the site beyond its current audience, to include male and female business and leisure travellers.

This objective of 'seducing' current and prospective users is at odds with the way that users currently tend to use what is essentially an information site. They go there searching for details relating to their flight, and leave more or less once they have found what they want.

The tension between seduction and information is made even keener by the adverse press that BAA has received – many articles complain of the long queues and sub-standard facilities, so a brazen attempt to promote terminal 5 as a shopping centre would only add fuel to the fire.

It was therefore imperative that DLKW's solution trod carefully between these two bipolar user modes; allowing users easy, intuitive access to the information they need, while whetting their appetite for their visit to Heathrow Airport.

## 4. Approach

Here is an overview of the approach that DLKW took.

### 4.1. Approach to IA design

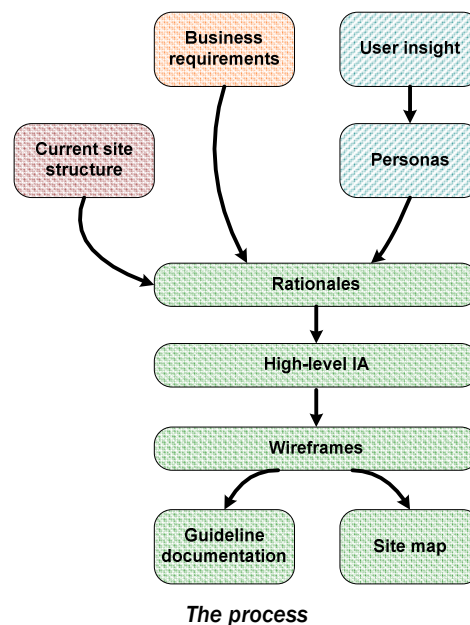
DLKW won the pitch for this project on the strength of its proposal for "80% evolution, 20% revolution". From an IA point of view, this meant significantly improving the user experience without radically changing the way the site's major sections were organised.

We were involved in the analysis and design phases only, with BAA's implementation partners providing the CMS integration, and BAA's editorial team responsible for the publishing and maintenance of the site. It was therefore necessary to evolve our IA deliverables into a set of guidelines that would ensure our user experience vision was shared, understood and well implemented.

The enhancements to the Heathrow site are to be rolled out to all of BAA's airports in a later release. Each airport has its own 'character', which is to be reflected in the design; however, the navigation structure of each site is to remain consistent.

### 4.2. Process

DLKW won the pitch to design the Heathrow Airport website thanks mainly to the strength of its page designs. This had the effect of shortening the time given to an analysis phase, since the client was already happy with the design output.



It therefore became necessary to progress from analysis to detailed deliverables in double-quick time. Our team gathered business requirements through a series of workshops. We gained user insight through primary and secondary research, on which we based a set of

personas, each representing a key type of passenger or other user of the airport. Since the vision for the site redesign was 80% evolution and 20% revolution, the current site structure was also a major consideration, and this was mapped in detail.

From here, we developed a strong rationale for each page type; home pages, landing pages, detail pages, and specialist sections such as **help in your language** and **shop, eat, relax and enjoy**. These proved a quick way to reach consensus on key user experience issues and provided a solid basis for moving forward into more detailed deliverables.

From the rationales, we produced high-level IA showing the implications on user journeys. This helped to identify key pages, which were then elaborated as wireframes with detailed functional specification notes.

The final step was to produce documentation that could be handed over to BAA's editorial team (design guidelines) and to the third party implementation partner (portlet specification). A final deliverable was the updated site map, where all pages are flagged for terminal specificity.

### 4.3. User testing

User-based evaluation was conducted at two stages of development by a third party. The first round was on flat early page designs, primarily in order to assess users' reactions to the new designs and functionality.

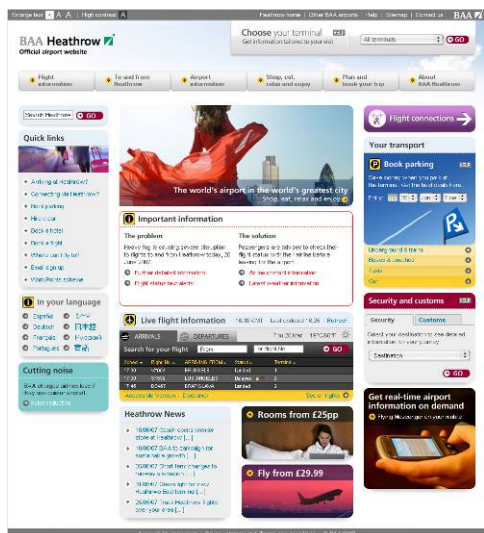
The second round was conducted at the end of the release 1 design phase, on a high-fidelity prototype. The six respondents were a 50-50 mix of experienced and novice users of the Heathrow site, and carried out five tasks. Feedback from each round of user testing was incorporated into the final IA and designs.

## 5. Solution features

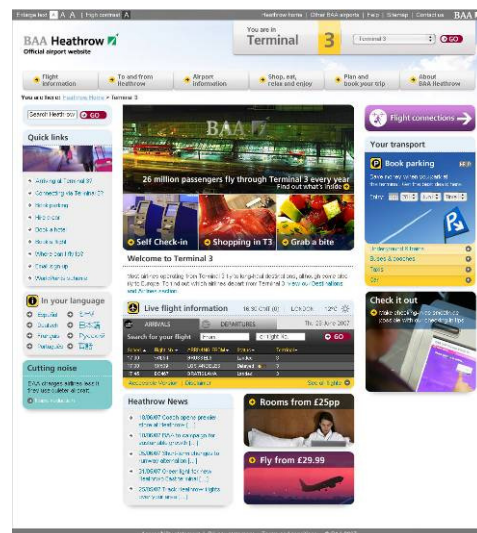
The first release site should go live in late September 2007. Here are some highlights of the site.

### 5.1. Surfacing of key information and functionality

Since the majority of users currently come to the Heathrow site to perform a handful of very specific tasks, we looked for ways of surfacing those elements on the Heathrow home and terminal home pages.



Heathrow home page



Terminal 3 home page

The content and functionality surfaced on these pages reflects the most commonly performed tasks – activities such as booking car parking, viewing flight information and the ability to display urgent security messages were made possible by the modular approach to

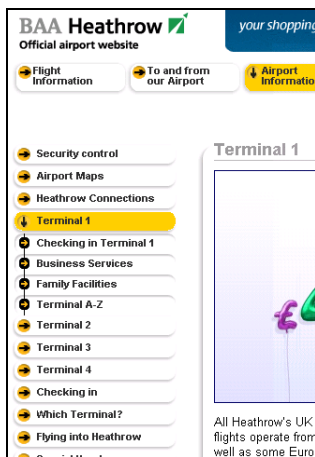
designing for CMS (in this case, Vignette 7). The system is flexible enough to allow new content and functionality to replace those shown, if user behaviours should change significantly.

## 5.2. Site hierarchy

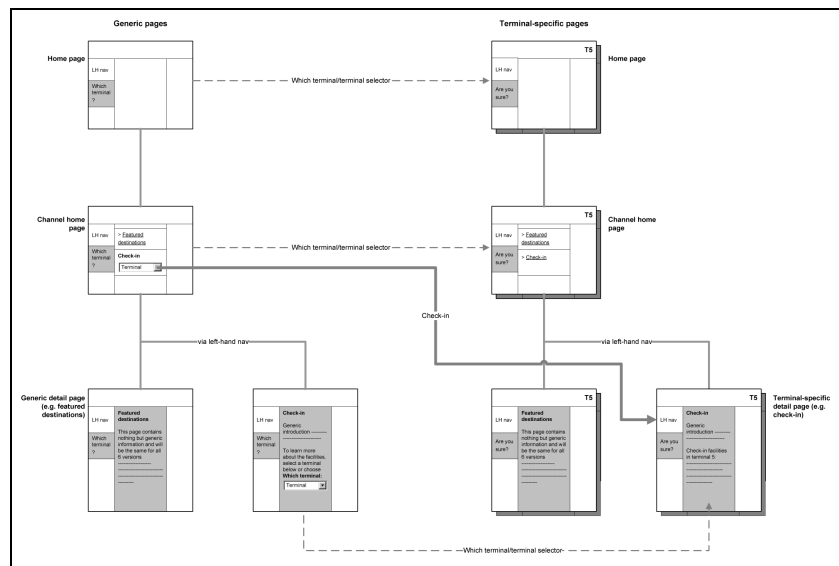
On the Heathrow Airport site, roughly half of the content is terminal specific - information such as where to check in depends on the terminal that the user is flying from. All other content is generic and useful to any passenger, irrespective of terminal. This implies that the user experience must incorporate a degree of segmentation.

The current site handles this segmentation rather inelegantly, with all terminals included in the section navigation, expanding to reveal the terminal specific content. Our approach was to create 6 parallel sites, one generic and 5 terminal specific. Users can either go straight to the desired terminal home page and begin their journey from there, or drill down through the navigation until they arrive at a page which says: “to view the information you require, you must first choose a terminal”.

Selecting their terminal from a drop-down (if they know it) or from the **which terminal** module (if they don't) takes users to the equivalent page in the terminal site. They remain there until actively resetting their terminal, which means that from that point onwards we can serve them with content that is more directly relevant to their forthcoming trip.



Existing segmentation



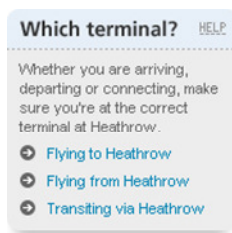
Proposed segmentation

The approach shown here has an additional benefit for search engine users. Because there are no direct links to the terminal specific pages, those pages will not be indexed by search engine spiders – so users will never be taken from a search results page (such as Google) to a terminal specific page until they have specified their terminal on the Heathrow site.

## 5.3. Which terminal?

As mentioned previously, some passengers may not know their terminal at Heathrow – and they would, of course, look to BAA to supply that information. This was especially important because, with the opening of terminal 5, flights would be moving around – so even regular passengers might not know this key piece of information.

It therefore became clear that an applet (or wizard) was required into which passengers could input their known flight details, and in return get a link to their terminal site. This had to be designed with careful attention to the different user types; passengers flying to and from Heathrow, connecting passengers and those meeting someone at the airport.



Initial step



2nd step with error message



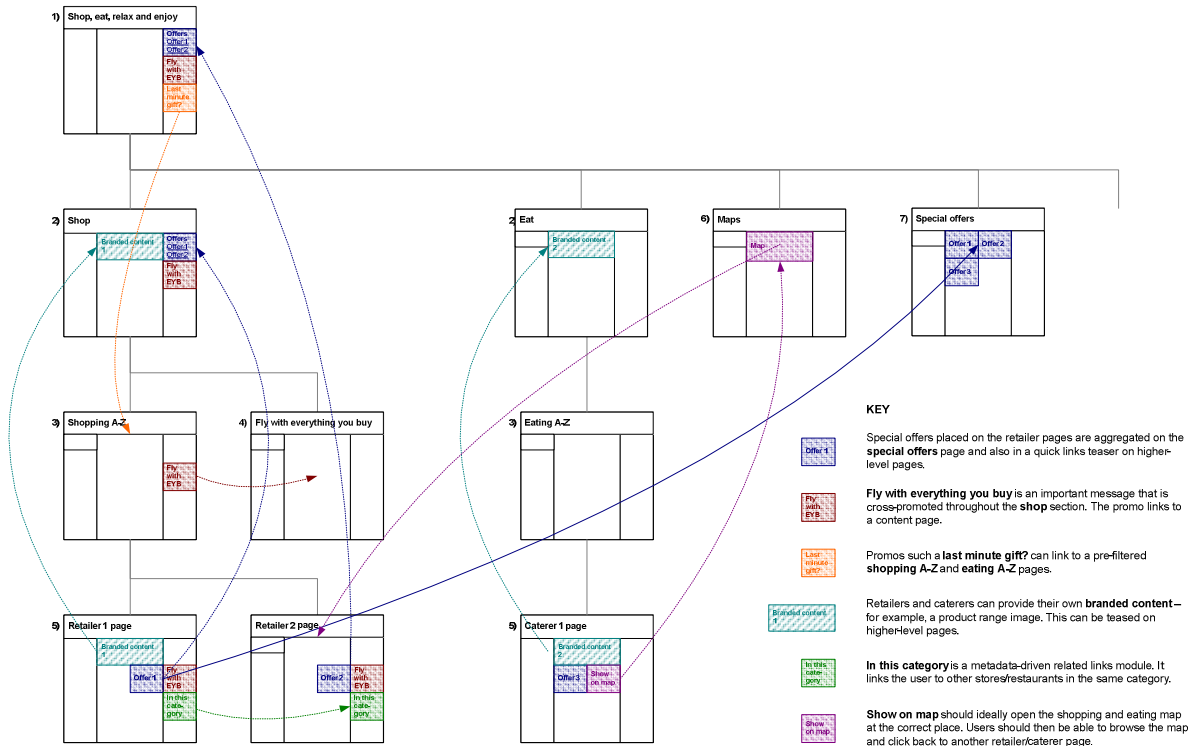
Results

## 5.4. Shopping and eating

BAA's drive to get passengers to spend more time (and money) at the airport implied an expansion of the **shopping and eating** section of the website. Other attractions such as wellbeing centres and terminal events were included in the section that was renamed as **shop, eat, relax and enjoy**.

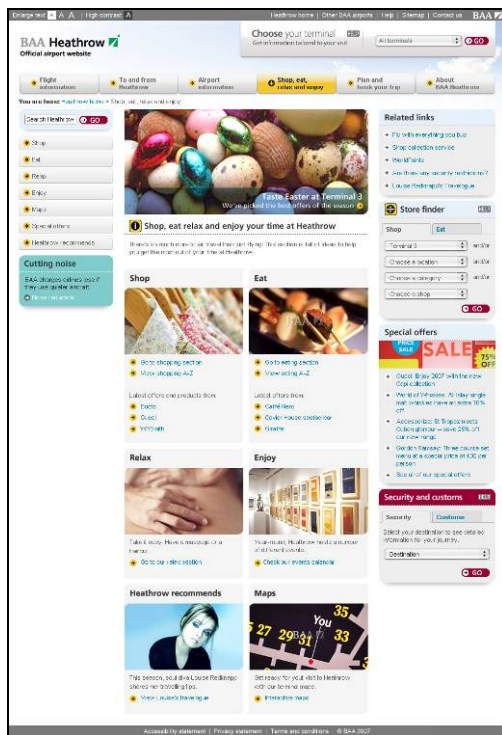
Rather than interrupt the user journey while users were in information-seeking mode, DLKW chose to promote shopping and eating most heavily on pages that represent the end of a user journey, otherwise known as the 'point of seduction'. In this way, users were in the most responsive frame of mind, since they had just completed a task and were pondering their next move.

Once users had landed within the **shop, eat, relax and enjoy** section, they were clearly open to seduction, so the amount of cross-promotion to other information in the section was significantly increased, as shown below. Category-driven meta navigation is used to cross-sell shops and restaurants, and it is hoped that in release 2 the interactive maps can be used to cross-sell by physical proximity, allowing the user to browse the space virtually in a similar way to how they would browse in real life.

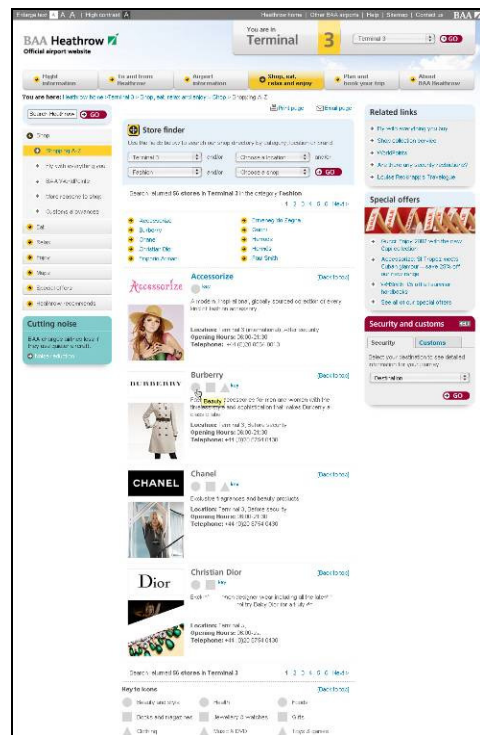


**Cross-promotions within the shop, eat, relax and enjoy section**

A key element of the shopping and eating pages was the store finder, which allowed users to find shops and restaurants in their terminal - by location, category and individual retailer or caterer. The store finder produces a list of shops or restaurants, which can then be investigated in more detail.



**Shop, eat, relax and enjoy landing page**

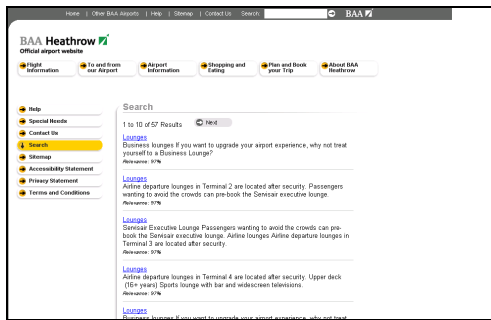


**Store listing**

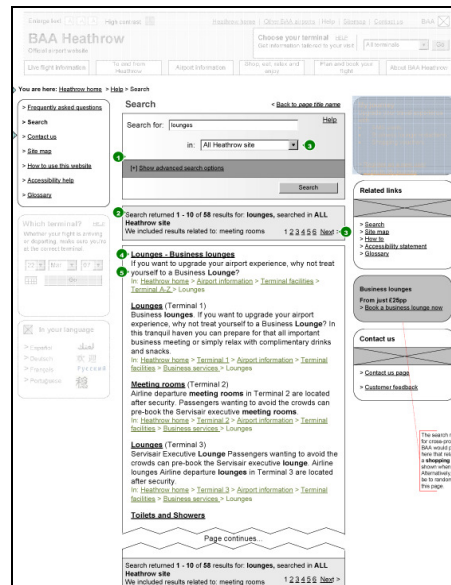
## 5.5. Search (release 2)

Search logs from the current site reveal that many of the most popular searches are initiated by the same user goal, but produce very different results because the search terms used are different. For example, three of the most popular searches in one month were 'jobs', 'careers' and 'VACANCIES'. On the current site, these searches produce very different results.

With more intelligence behind the search results, and with more consideration for how search fits into the overall user journey, DLKW believed that search could be improved dramatically. Our solution makes full use of Autonomy's (BAA's search product's) word stemming and thesaurus features, as well as offering help with search results and related links to FAQs and appropriate site content.



Existing search results page



Proposed search results page

## 5.6. My Journey (release 2)

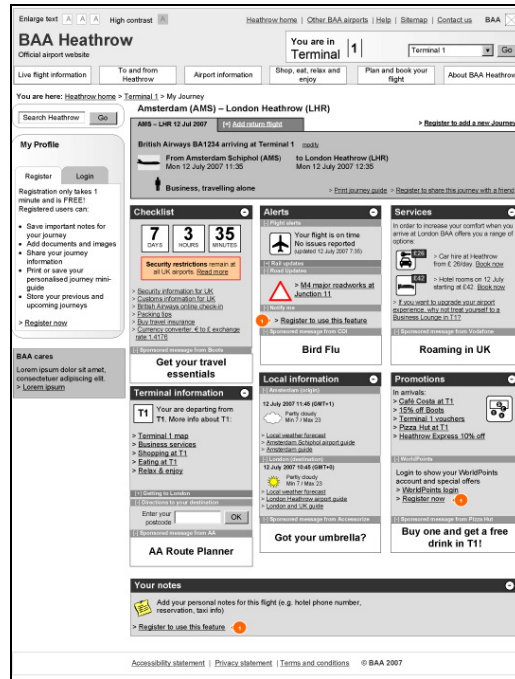
My Journey, planned for release 2 in January 2008, is the most revolutionary aspect of the Heathrow website redesign. It is a dashboard that effectively 'shrinks' the site to give information especially relating to the user's next journey through Heathrow Airport.

By submitting just their flight number and date of travel, users will be able to view on one page a wealth of information and links that relate to their journey; flight status alerts, security information, special offers for shopping and eating in their terminal, and so on. In order to remain up-to-date right up until the time of their flight, they can also sign up to receive the same information through email, SMS and RSS feed channels.

To retain this information for their next visit to the Heathrow Airport site, users are encouraged to sign up, which gives them access to enhanced features such as a panel for their personal notes, the ability to book airport parking, lounges, and to share their journey with others. However, My Journey can be used very effectively without registering – it was agreed that this 'try before you buy' approach was more considerate towards users, who generally do not want to submit personal details until they can see a clear benefit.



My Journey – adding flight details



My Journey – dashboard

## 6. The future

Release 2, in January 2008, will mark the fruition of DLKW's vision for the Heathrow Airport site. Next, we will collaborate with BAA on rolling out our site design and features to their other airport sites; London Gatwick, London Stansted, Southampton, Edinburgh, Glasgow, Aberdeen and Naples (Italy).

Other exciting items anticipated for phase 3 include integration of WorldPoints (BAA's loyalty card scheme) with My Journey, and a suite of widgets – bringing BAA the ability to publish information to sites like iGoogle, and to users' desktops.

## 7. Summing up

The needs of users who come to a well-known site looking for specific information need not conflict with the desire to excite and entice those same users. Through judicious use of cross-promotion, we have designed a site that fulfils those information needs, and then captivates the same audience at the point where they are most open to seduction. We expect the site audience to grow through a combination of promotion, word of mouth, and viral elements (such as **share my journey**).

In conclusion:

- The overall site structure was reorganised around Heathrow's five terminals,
- The information architecture strives to balance information provisioning and changing passengers' expectations about the airport experience,
- My Journey represents a quantum leap forward for Heathrow, introducing a new user experience paradigm for airport and travel websites.