

HOTEL BOOKING PROCESS

DESIGN & USABILITY

REPORT

Alex Bainbridge Travel UCD

FEBRUARY 2003

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2 About the author

This report has been written and researched by **Alex Bainbridge**. He is a senior consultant at Travel UCD and specialises in travel website user-interface design issues.

Alex produced his first website in 1994. He has since worked in a variety of software design, development, commercial and project management roles, lately in the travel industry.

Before forming Travel UCD he was the head of web design and development at Andbook Online (online hotel distribution). He has extensive experience in the independent, adventure, and cultural tour-operator sector, and was managing director of a UK-based tour operator.

Alex holds a BSc (Honours) in Applied Computing and is a member of the Usability Professionals Association.

3 Executive summary

Overview

This report analyses the primary user interface and usability aspects of the booking process within hotel websites. It suggests improvements that can be made to many commonly used B2C booking-process designs.

What is a booking process?

A booking process determines how the user navigates through a series of sequential phases in an online hotel reservation.

For example, a user may:

- 1. Enter required city and stay-date
- 2. Review options from available hotels, rooms, and rates
- 3. Select a suitable hotel, room, and rate
- 4. Enter guest and payment details
- 5. Confirm reservation

What is usability?

A user interface is the aspect of a website (or application) that the user interacts with and experiences first-hand. Usability is a quantitative and qualitative measurement of the design of a user interface, grouped into five key factors:

- learnability
- efficiency
- memorability
- errors
- satisfaction

(Jakob Nielsen (1993) Usability Engineering)

In the competitive online hotel reservation industry, user interface design and usability is a key differentiator between websites offering similar products. A user who enters a website must be able to understand the design immediately. There are no opportunities for training or user manuals.

If users can't immediately understand how to use a website, they will either transfer to another means of communicating (such as telephone or email) or click to a competitor.

The key difference between *usability research* and *market research* is that market research tells you whether a group of people *will* use a website while usability research tells you whether they *can* use it.

What is in the report?

- An explanation of the key concepts behind online hotel booking process design, including screen flow, multi-room bookings and occupancy level issues
- An analysis of the popular booking-process styles in general use today
- Results and analysis of usability testing conducted by Travel UCD
- 25 guidelines that define the best industry practice

What are the key issues highlighted in the report?

Only 48% of rates displayed on results pages explain whether the price is for a room — the hotel industry standard — or for a person — the holiday industry standard — which leads to customer confusion on the likely cost of their stay.

The report also discovers that less than 20% of websites can handle all the common types of room occupancy offered by hotels; for example, reserving two rooms for three adults, or booking one superior and one standard double room for two couples.

Families also lose out, with many hotel websites unable to offer rooms for child occupancy, or, conversely, accepting bookings for child occupancy when legal regulations forbid the reservation.

Information sources

This report is based on an analysis of the following:

- A functionality evaluation of 87 hotel booking websites (16 travel agencies, 43 hotel booking agencies, 28 hotel chains)
- The summary of two **12-user usability tests**, each conducted on four leading hotel booking websites

The full list of websites and tasks used in the usability tests can be found in the Appendix.

Target audience

This report is aimed at:

- Hotel groups or agencies who create their own bespoke booking engines or websites
- Travel distribution companies, such as GDSs (Global Distribution Systems), with online booking-engine products
- Other companies, such as web design agencies, with an interest in online hotel reservations

The report primarily focuses on the issues relevant for:

• Leisure bookers (B2C bookers)

• Independent business travellers (B2B bookers), who exhibit similar behaviour as leisure bookers

Travel agency systems and business travel booking-engines (which require travel policy rules) are excluded from this analysis. Factors relating to group reservations are also excluded.

This report does not address the behind-the-scenes technical aspects of hotel reservation systems.

That makes it an ideal introduction to hotel reservation websites – for marketing, web design and hotel industry personnel who have no specific industry or online web design knowledge.

Definitions

The following website definitions are used throughout this report:

Travel agency website: A website that offers more products than simple hotel booking functionality (e.g. car hire, flights) – for example Travelocity.com, Expedia.co.uk, Orbitz.com.

Hotel booking agency website: A website that takes hotel bookings / reservations as its primary business – for example Hotels.com, Placestostay.com, Lodging.com

Hotel chain website: A website specifically for a hotel chain – for example Hilton.com, Marriott.com

4 Introduction

This section of the report highlights the top-level factors relating to online reservation.

4.1 Why is the user on your website?

The design or redesign of any website should start with an analysis of existing and prospective users. A key aspect to consider is why the user has chosen to visit the website on that occasion – referred to as a *site visit goal*.

This report considers users who are on a website for one of the following two reasons:

- to gather information looking for information such as hotel amenities, or the rates and room availability on a known stay date etc. in order to eventually make a reservation (comparison shopping)
- to make a reservation

There are other reasons for visiting a website – for example to make a customer service enquiry, to cancel or modify a reservation, to check the level of a users loyalty card points – but this report addresses the user goals of *information-gathering* and *reservation-making*.

4.2 The three phases to an online hotel reservation

A user will generally complete the *information-gathering* goal before *making a reservation*.

This isn't always the case. It could be that the user has already, either offline or via another website, chosen the hotel they wish to stay at before making a reservation on your website.

There are other users, such as travel agency staff, who may visit a website to gather hotel information prior to making a reservation through an existing travel agency channel.

Apart from the two examples above, the two primary user goals that we are interested in can be subdivided into the following phases and stages in an online reservation:

"Information gathering"

Phase 1 - Search and evaluation

- 1. **Input stay requirements** including location (city) and proposed dates of stay
- 2. **Compare and evaluate results** user may view multiple hotel / room / rate combinations
- 3. **Decide** user decides which hotel / room / rate combination meets their requirements

"Reservation making"

Phase 2 - Selection

4. **Select hotel, room and rate** – the user selects the hotel / room / rate they wish to book

5. Select additional rooms and rates – the user adds additional rooms if required

Phase 3 - Checkout

- 6. **Input guest details** such as name, address, email address etc.
- 7. **Input payment details** such as credit card details or other payment method
- 8. Confirm reservation

The user can complete these phases over a single or multiple visits.

This report focuses primarily on the first two phases of the online reservation process.

4.3 Multi-room and occupancy combinations

For many hotels, the majority of online reservations are for one room only. But there are many other less common combinations that complicate the online reservation process. As we shall see in this report, these combinations are less well supported in the online hotel industry.

The added complexity comes when hotels, for example, charge different rates for single occupancy in a double room, or a double occupancy in the same double room.

This leads to the following potential combinations for a two-room reservation query:

- two rooms, both with two adults (same rate, same occupancy level)
- two rooms, both with one adult (same rate, same occupancy level)
- two rooms, one with two adults, one with one adult (same rate, different occupancy level)
- two rooms with two adults in each, one a superior double, one a standard double (different rate, same occupancy level)

The saying goes that developers and technicians are interested in what is possible, whereas user interface designers are interested in what is probable.

We suggest that websites and their booking processes should be able to cope with the above combinations as a minimum requirement, even if the most probable reservations are for one room.

This report shows that the inability to handle occupancy and multi-room issues is the key failing of many leading travel websites. This is the main area where design improvement is possible.

4.4 Children - handle with care!

Increased complexity comes when you want your reservation engine to handle reservations for children in addition to multi-room and occupancy combinations.

For safety, legal and insurance reasons, some hotels do not allow children to stay in a room unless they share with an adult. Depending upon the hotel, a child can be classified as anyone under 18, under 12 etc.

For example, consider a family (two adults and two children both aged 15) looking for a standard double room and a twin room for the two 15-year-olds. For this reservation to be accepted by the hotel, the user will have to allocate one adult and one child to each of the rooms. When the family arrive at their hotel, the check-in staff will probably turn a blind eye to the family swapping rooms back to their original requirements.

Our analysis shows that this hotel regulation is not well known outside the hotel industry, and is therefore a potential source of user confusion on hotel reservation websites.

4.5 Rates display

Rate / price data are some of the most important pieces of information that users look for on a website. Price is often the primary factor in a customer's choice between competing hotels and websites.

How users make decisions based on price

This report demonstrates that hotel booking processes strongly influence the user's choice, particularly the way that users compare different hotels and rates.

Price per room, or per person?

In the UK and European marketplaces many travel operators and agencies sell 'holiday packages'. These packages are priced *per person*. With the growing tendency of leisure travellers to organise their own travel, these customers are moving online to book their accommodation separately from their flight.

In this report we highlight the need for hotel reservation websites to show clearly whether a price is per room (the hotel industry standard) or per person (the package holiday standard).

4.6 Number of screens

Discussions about hotel booking-process design commonly focus on reducing the number of screens required to make a hotel booking.

In this report we investigate the one-screen booking process from iHotelier. We also ask whether concentrating on the minimisation of screens in a booking process is a useful design goal.

5 Standard booking processes

5.1 Phase 1 - Search and evaluation

5.1.1 [A] Date / city entry, select hotel and rate on consecutive screens

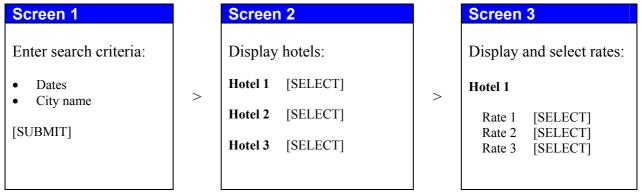


Figure 1: Three-stage screen flow



Figure 2: Selection of hotel – 'Screen 2' example from Opodo.co.uk

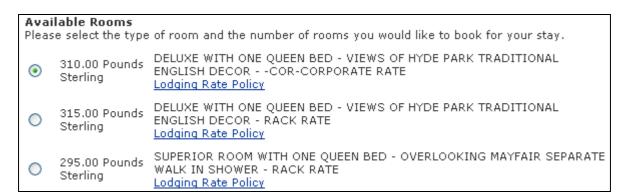


Figure 3: Selection of rate – 'Screen 3' example from Trip.com

5.1.2 [B] Date / city entry, select hotel and rate on same screen

Screen 1 Screen 2 Enter search criteria: Display hotels: Hotel 1 City Rate 1 [SELECT] Dates Rate 2 [SELECT] Rate 3 [SELECT] [SUBMIT] > Hotel 2 Rate 1 [SELECT] Rate 2 [SELECT] Rate 3 [SELECT] Hotel 3 Rate 1 [SELECT] Rate 2 [SELECT] Rate 3 [SELECT]

Figure 4: Two-stage screen flow



Figure 5: Selection of rate and hotel – 'Screen 2' example from Expedia.co.uk

Travel UCD - consultants in travel and hospitality website design http://www.travelucd.com

5.1.3 Analysis

The following table shows how many websites use the different search and evaluation styles:

TABLE 1: Search and evaluation styles

Search and evaluation style	Travel agency	Hotel only	Hotel chain	Total
A			_	20
Select hotel on screen 2 Select rate on screen 3	10	13	6	29
B Select hotel and rate together on one screen	6	17	2	25
Other (see section 6)	-	13	20	33

Source: Travel UCD Research, January 2003

Table 1 demonstrates that for travel agencies and hotel-only websites, there is an even split between using style A and style B. The table also shows that hotel chains generally use other search and evaluation styles. These other styles will be discussed in section 6.

A few of these websites use multiple search types (for example map search, activity search etc). The table 1 lists the only the main search styles.

Overview

The 54 websites that apply style A or B have a booking flow that is based on entering dates and location first, followed by selecting a hotel and rate. (Styles A and B combined). It is only on the second screen that the difference between styles is apparent.

Style A: The second screen gives users an option to select a hotel. They cannot see a list of rooms and rates that are available in that hotel on the dates entered.

Style B: Users can see the rooms and rates on offer before selecting a specific hotel.

Example – how a user can choose between available hotels on a hotel website

Consider an example user who is looking for a double room for one night in London, on a known date.

With style A, users have their first sight of the set of hotels available on the requested dates via screen 2. They then select a hotel and move on to screen 3 to see the room rates. If no rooms match the users preferences, they have to return to screen 2 (hotel display page) and select a different hotel. They must repeat the back-and-forth navigation for every hotel they select.

With style B, users can scroll a single page up and down to determine whether the website has any hotels with rooms that match their preferences. Then they select their hotel.

For a user who wishes to evaluate different rooms, rates and hotels, style B is significantly preferable.

In the usability testing (summarised in the Appendix) we observed that all 12 users on the Expedia website (style B) successfully evaluated different rooms, rates and hotels for known dates in a specified city. The same users were not as successful at evaluating different hotel options on the Opodo website (style A).

Notes on style A

• Websites that implement style A should ensure that users can identify which hotels they have viewed the rooms and rates on (e.g. change the colour of visited hyperlinks).

Notes on style B

- Enables a user to quickly arrive at an 'overview' price for a city, for a specific date
- The user can evaluate between an expensive room in a cheap hotel, and a cheap room in an expensive hotel, without significant forwards and backward screen navigation
- In our usability testing, we observed that users evaluated more hotels (checking for required rooms or rates) on a style B website (Expedia) than on a style A website (Opodo).

Style A or B is irrelevant if the user knows the name of the hotel they are looking for because they do not need to complete an 'evaluation' activity.

5.1.3.1 Using guidance rates with style A

Although we believe that style B is preferable to style A for evaluating hotels, there are some helpful improvements that a style-A website can make. An obvious improvement is to display on screen 2 the range of prices that users will encounter on screen 3 (the rates display page).

TABLE 2: Style A – Rate display examples

Rate display style	Examples				
Rate range FROM > TO	Radisson Edwardian Marlborough Hotel 4 Star Deluxe Hotel in fashionable Bloomsbury. more (opodo.co.uk) London, United Kingdom 99.00 - 222.00 (GB Pound) See Rate Details See Other Rates				

Rate display style	Examples		
Rate FROM	Carlton Hotel (London) 90 Belgrave Road Victoria, London W1V 2BJ, United Kingdom Victoria (Belgravia) [more] (placestostay.com)	Rates start at ^a : City center:	£ 39 1.1 mi

Source: Travel UCD Research, January 2003

TABLE 3: Style A – what rate is displayed on screen 2?

Rate display – screen 2	Travel agency	Hotel only	Hotel chain	Total
Rate range – FROM > TO	3	3	1	7
Rate FROM	4	5	-	9
Average rate	1	1	-	2
Example rate	-	1	-	1
No rates displayed	2	3	5	10

Source: Travel UCD Research, January 2003

Table 3 demonstrates that only seven of the 29 websites that apply style A are assisting the user by giving a rate range (FROM > TO) rather than other, less helpful, rate information.

Implementation note

It is better to display live rate data on screen 2. If you cannot use live data, non-live 'approximate' data would be more helpful than no rate guide information at all.

5.1.3.2 What does the rate include?

If you give a guideline rate, or even the actual room rate, you should explain what the rate includes and excludes. In particular, is the rate:

- Priced per person or per room
- Priced per night or for the total stay
- Inclusive or exclusive of tax (and is there tax to add later in the reservation process and at what rate)
- Inclusive or exclusive of supplements (and is there potentially a supplement to add later in the reservation process and at what rate)
- Inclusive or exclusive of other value added items such as breakfast
- Quoted for single or double occupancy in particular if the user has not yet supplied that information

The most important page is the first results page to state a price. This page presents the information with which users evaluate different hotel options. On a style A website this is any

rate or range of rates stated on screen 2 or screen 3 (list of hotels, list of rates in a particular hotel). On a style B website this is the actual room / rate on screen 2.

In the usability testing we observed that none of the 12 users on the Expedia website (style B) navigated to screen 3, the page where sales tax (VAT) was added to some hotel rates in the UK. Those users were not in possession of the correct full cost when evaluating different hotel options. Since we undertook the usability testing, Expedia appear to have changed their screen 2 display. They now show rates inclusive rather than exclusive of sales tax (VAT), for UK hotels.

The following tables show how the 84 websites we evaluated handled the issues of rate display. Only those websites that display rates on the results pages (screen 2 or screen 3) have been included in this analysis.

Per person or per room?

TABLE 4: How is the rate calculated?

How is the rate calculated?	Travel agency	Hotel only	Hotel chain	Total
Per person	-	1	-	1
Per room	14	32	3	49

Source: Travel UCD Research, January 2003

Table 4 shows that the common industry practice on hotel websites is to price per room rather than per person.

TABLE 5: Does the website say how the rate is calculated on the results page?

Does the website say how	Travel	Hotel only	Hotel chain	Total
rate is calculated?	agency			
YES	6 (43%)	17 (52%)	1 (33%)	24 (48%)

Source: Travel UCD Research, January 2003

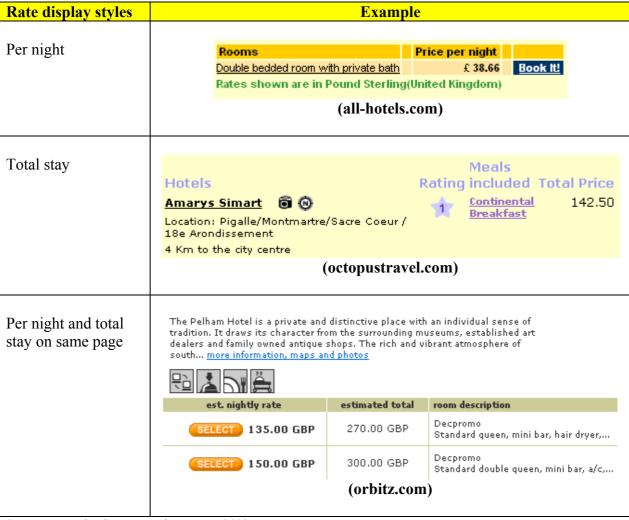
Table 5 reveals that only 48% of all results pages tell the user that the rate is quoted per room rather than per person.

In the UK and other European marketplaces many travel operators and agencies sell 'holiday packages' – and these packages are priced *per person* rather than *per room*. But there is a growing tendency for leisure travellers to organise their own travel. These travellers may visit a hotel reservation website immediately after visiting a holiday package website. They may not realise that the two websites are probably rating accommodation differently – one by room and the other by person.

In our usability testing, the most commonly asked question was whether accommodation was priced per person or per room. This simple and low-cost informational improvement would aid users significantly.

Per night or display a total cost of the accommodation?

TABLE 6: Rate display styles



Source: Travel UCD Research, January 2003

TABLE 7: How is the rate displayed?

How is the rate displayed?	Travel agency	Hotel only	Hotel chain	Total
Per night (also includes websites who display per night breakdowns)	10	24	1	35
Total stay	ı	2	-	2
Per night and total stay on same page	4	7	2	13

Source: Travel UCD Research, January 2003

TABLE 8: Does the website say how the rate is displayed on the results page?

Does the website say how the rate is displayed?	Travel agency	Hotel only	Hotel chain	Total
YES	11 (79%)	22 (67%)	2 (66%)	35 (70%)

Source: Travel UCD Research, January 2003

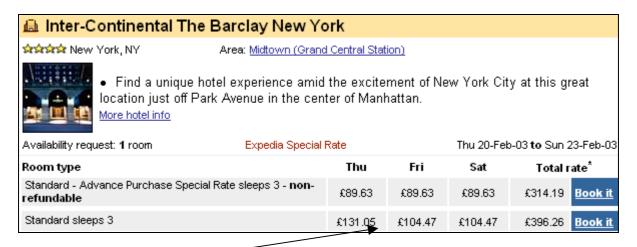
Table 7 shows that the most common style of display is per night, followed by per night with an additional total stay calculation. 70% of all hotel websites showing rates on the results pages inform the user what the rate refers to.

We suggest that a simple improvement to aid clarity would be to add a text label to any rate information, stating whether a rate is per night or for the total stay.

Displaying a per night breakdown

It would also be helpful if users booking multiple-day stays could also see a *per night breakdown*. This will help them understand that the rate is truly per night rather than for a total stay. This information is especially helpful where there is a rate change during the stay period (for example going from a mid-week rate to a weekend rate).

Figure 6: Expedia.co.uk uses a per night breakdown alongside a total stay calculation



Change in rate during the stay period

5.2 Phase 2 – Selection

Once a user has decided which hotel, room and rate type they are looking for, they can begin the selection phase of the reservation process.

This report addresses two aspects of selection:

- How to handle reservations for multi-room reservations
- Issues that relate to accepting room reservations for children / minors

5.2.1 Multi-room and uneven occupancy level reservations

In section 4.3 we introduced the requirement for a travel website to handle different styles of multi-room reservation. They include:

- one room for two adults
- one room for one adult
- two rooms, both with two adults (same room type / rate, same occupancy level)
- two rooms, both with one adult (same room type / rate, same occupancy level)
- two rooms, one with two adults, one with one adult (same room type / rate, different occupancy level)
- two rooms with two adults in each, one a superior double, one a standard double (different room / rate type, same occupancy level)

TABLE 9: Websites handling multiple occupancy and multiple rate reservations

Booking process style	Travel	Hotel only	Hotel chain	Total
	agency			
Style A & B	2 (12%)	6 (20%)	1 (12%)	9 (17%)
Other	-	5 (38%)	2 (10%)	7 (25%)

Source: Travel UCD Research, January 2003

Table 9 shows that only 16 of the 87 (18%) websites we evaluated could handle all these reservation combinations in a single site visit.

The primary reasons for a website failing to handle all these reservation combinations were:

- system only took one reservation at a time
- system assumed that the second room was the same room type and rate as the first
- system assumed that the second room was the same occupancy as the first
- system could only allocate a single person to a single room, not to a double room

The results of our usability testing reflect the low percentage of websites that handle these combinations. On 9 occasions out of the 36 tasks (25%) involving uneven occupancy or different room / rate types, the user was unable to understand how to complete the reservation.

The key points are:

- Ensure that all combinations can be booked and, if they can't, inform the user that they can't
- Let users select multiple rooms on all booking pages, not just on an advanced search option
- When users select multi-rooms and occupancy levels at the start of the booking process, make sure the correct rates (taking occupancy into account) can subsequently be shown

5.2.1.1 Summary of issues encountered in the usability test

TABLE 10: Summary of issues

Issue	Example				
Assuming the same level of occupancy in each room This is a problem because, in numerous hotels, the rate per room is different depending upon whether you have one or two people in a double room	# of Adults: 2 v (per room) # of Rooms: 1 v Check Availability (lodging.com)				
Assuming the same level of occupancy in each room	Summary	Rate* (Great Britain Pound)	No. Rooms Available	No. Rooms Requested	No. of Guests: Adults/Children Per Room
Here you may select multiple rate types, but you are not able to have two double rooms, one	Single. Number of beds: 1. Maximum number of guests: 1.	45.00	3		
with single occupancy, one with double occupancy	Double. Number of beds: 1. Maximum number of guests: 2.	54.00	2		
	(Opodo.co.uk)				
Assuming that all rooms must be reserved with the same rate & room type This screen shot shows that the user may only reserve one room type	Room type Standard Double/Twi Standard Single room	ı sleeps 1	eps 2 a pedia.co. u	£48.00 £	Total rate [*] 132.86 Book it 113.88 Book it

Issue	Example				
How many people travelling? Is this two adults per room or two adults in total?	# of Nights: 1				
Assuming the reservation is for just one room You should inform the user if this is the case	*Number of Travelers Adults Children 1 0 (trip.com)				
Unable to put an adult travelling alone in a double room	The Following Room Types Number Min/Max Adult Price Are Available In Room Per Person Solect Rooms SINGLE EN SUITE 5 1/1 £171.50 CB 0 V DOUBLE EN SUITE 6 2/2 £100.00 CB 0 V (superbreak.com)				

Source: Travel UCD Research, January 2003

A full list of issues found can be found in the Appendix.

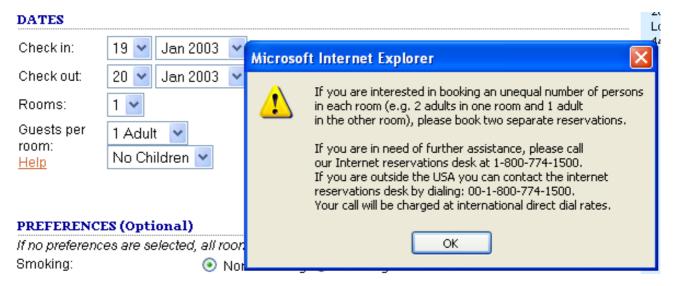
5.2.1.2 What design options are available to address these problems?

OPTION #1 - Inform users that they may only make one reservation at a time

One design option is to suggest that users perform two or three full reservation cycles if they want to make reservations that cannot be handled by the existing design.

For example, figure 6 below shows the message that appears on the **Hilton.com** website when the user wants to book an unequal number of people in each room.

Figure 6: Message to users on the Hilton.com website



Although the best solution would be to handle all combinations of multi-room reservations, this simple help box, positioned next to the room and guest number entry, would assist users. It stops them hunting for a solution to their problem and advises the appropriate way out.

Another solution may be to put a message next to the guest entry box itself, to minimise the risk that users become confused about how to complete their reservation.

OPTION #2 – Loop through available rooms in a single hotel

An example website that handles multi-room reservations in this manner is **accorhotels.com**.

Once a user has added a room to their reservation selection, they have the option to return to the list of rates / rooms available in a particular hotel (screen 3 in figure 3). They can then add a further room to the reservation 'shopping basket'.

This looping process carries on until all the required rooms have been added.

In the usability test, two of the 12 users failed to understand how to add the second room to the reservation, so this option is not foolproof.

Figure 7: Accorhotels.com



With this design, it would be helpful to indicate the number of rooms available at a specific rate to avoid the user booking one room and then finding out that the hotel is now full or the rate or room type is no longer available and they are subsequently unable to book the second room.

OPTION #3 – Allow room quantity selection at the same time as room / rate selection

Figure 8, on the following page, shows how **Lastminute.com** (a website with style A) has solved the design issue of handling multi-room and multiple occupancy rates.

Screen 1 (not shown) is a standard date and location entry screen.

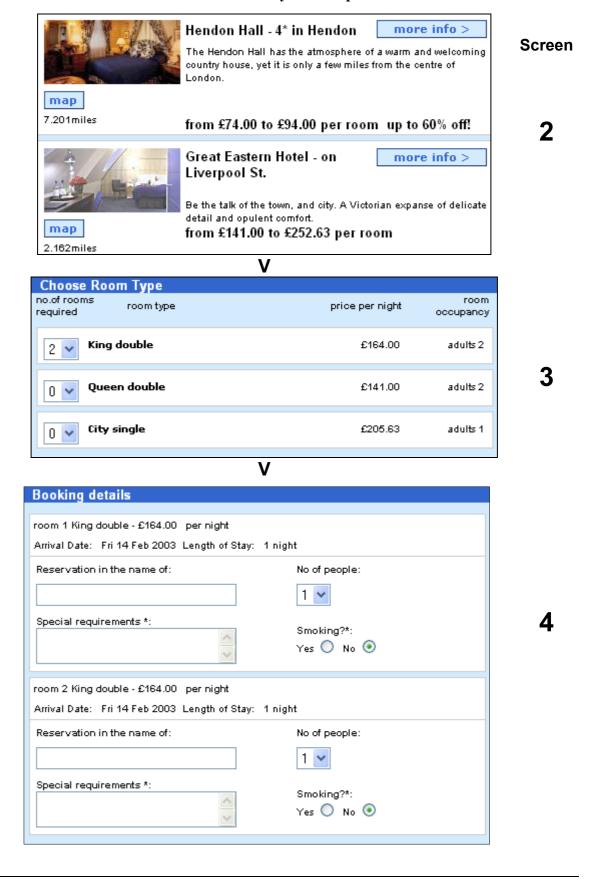
Screen 2 displays a list of hotels that are available in the location specified in screen 1.

Screen 3 allows the user to select the desired quantity of certain room types.

Screen 4 allows the user to state how many people are to be in each room.

This design would give similar results when applied to style-B websites.

Figure 8: How Lastminute.com handles the entry of multiple rooms



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TABLE 11: Compatibility of design options with search and evaluation styles

Design option	Style A compatible	Style B compatible
Inform users that they may make only one		
reservation at a time	✓	✓
Example: Hilton.com		
Loop through available rooms in a single hotel		×
	✓	(unless a specific page
Example: Accorhotels.com		created for the purpose)
Allow room quantity selection at the same time as		
room / rate selection	✓	✓
Example: Lastminute.com		

Source: Travel UCD Research, January 2003

This is not an exhaustive list; there are other design options to address the issue of handling multiple rooms and uneven occupancy. The important point is that they *are* handled – and that all potential combinations are possible or, if not, that the user is so informed.

5.2.2 Children

Handling reservations with children is a related problem to handling multiple room or uneven occupancy reservations.

TABLE 12: Websites accepting entry of children as well as adults

Children as well as adults	Travel agency	Hotel only	Hotel chain	Total
No	8	22	19	49 (56%)
Yes	6	20	9	35 (40%)
Not applicable (e.g. business travel)	2	1	1	3

Source: Travel UCD Research, January 2003

Table 12 shows that 35 of the 87 websites evaluated let users identify child guests.

There are three key points to be addressed:

- 1. At what age does a child count as an adult (and is this hotel specific)?
- 2. Can a reservation be made for a child staying in a room alone or to share with another child?
- 3. No rates loaded for children only

At what age does a child count as an adult?

The age that a child counts as an adult is hotel or chain specific.

To cope with this issue, some hotel reservation websites ask for children's ages. They then calculate the appropriate hotel, room or rate for that reservation.

Those websites that don't allow the input of numbers of children should make it clear to users that children are always counted as adults.

Can a reservation be made for a child staying in a room alone or to share with another child?

In some hotels, for safety, legal and therefore insurance reasons, children are not permitted to stay in a room unless accompanied by an adult. Although this regulation is known within the hotel and travel industry, it is not generally understood in the wider population.

So, for example, a family of four (a couple with two 15-year-old children), that wishes to reserve two rooms (a double room for the couple, a twin room for the children) would have to make the reservation so that each room contained one adult and one child. When the family arrive at the hotel, they would probably arrange the rooms to fit their original intentions – two adults in the double room and the two children in the twin room.

Whether the regulation is enforced depends upon the hotel. It creates a particular problem for hotel reservation websites that handle different hotels in different countries. Some will apply the regulation, some not.

No rates loaded for children only

From a hotel perspective, hotels do not load rates for children only in hotels where children cannot stay by themselves. In addition, children typically stay free so having a child in a room by themselves would mean that the hotel would need to give the room away for free.

Therefore, if a booking engine were to query for a rate for 0 adults and X children, none would be returned.

A key purpose of the user interface is that the user shouldn't need to know these technical details about rate loading. The user interface should guide the user to add a child to a reservation in the most appropriate way.

Notes from the usability testing

In the second usability test, we asked 12 users to reserve the following room combination:

Room A – Double room, two adults **Room B** – Any room type, one child (15 years old)

This task produced the highest number of task failures, with five of the 12 users unable to enter the reservation correctly or understand why a website wouldn't allow them to continue. All three users who were given this task on the Expedia.co.uk website failed to complete it.



Figure 9: Children entry on Expedia.co.uk

The primary reason for users failing to comprehend the above functionality is because, when they place the child in the second room, Expedia automatically puts an adult in with them. The user is given no explanation for this automatic procedure.

A similar situation was observed on the Opodo website, with the following poor message to the user:

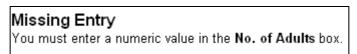


Figure 10: Error message on the Opodo website

This does not explain to the user that each room must have at least one adult.

Other notes

Business travel

For business travel handling children is not important however this will affect the user's ability to book an extension to his business trip, during which his wife and child could join him.

Prepay rates

It is particularly important to handle the correct rate sale for children on prepay rates, as there is less opportunity to rectify the incorrect rate post booking.

5.3 Phase 3 – Check-out

In this report we have focused primarily on the first two phases of an online hotel reservation and, in particular, on how to handle multiple room reservations.

Once users have decided where to stay, and chosen the rooms that they wish to book – they will start the third phase, the entering of guest and payment information. For a multi-room reservation, this can include the entry of room-specific, rather than reservation-specific, information

This could include:

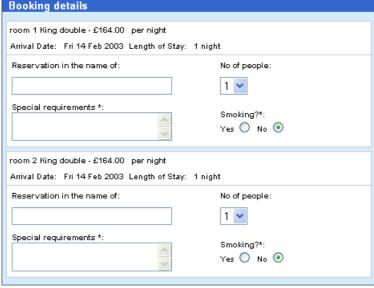
- **Special requests** –requests for a particular room or for a particular guest to stay in a particular room
- Additional bedding for example, a request for a cot. (Note that a lot of hotels will charge for an extra bed and may handle the extra bed through the number of guests. E.g. when a user books a double room for 3 adults. In this case, the user will be charged triple occupancy or the rate may include the surcharge for the extra bed.)
- **Smoking / non-smoking** including perhaps a combination of smoking and non-smoking
- Guest name per room do the individual rooms have guests allocated to them, by name, at time of reservation or will the hotel only receive the booker's name details

The website should be clear that special requests and non-smoking/smoking requests are usually requests only and are not guaranteed by the hotel.

For example, figure 11 below, shows how lastminute.com enables the user to enter room-specific smoking requirements as well as special requests.

Figure 11: Lastminute.com, showing start of check-out phase

Booking details



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6 Other booking processes

6.1 Exotic styles

6.1.1 [C] City entry, select hotel, select rate, then enter date

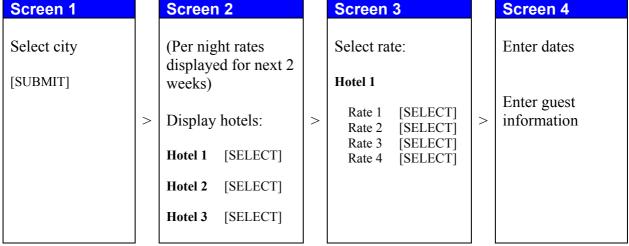


Figure 12: four-screen flow used by Wotif.com

	<u>Full</u> Rate	TAX Inclusive Rate Per Room GBP <u>Currency Converter</u>												
SE England		Mon 12/8	Tue 13/8	Wed 14/8	Thu 15/8	Fri 16/8	Sat 17/8	Sun 18/8	Mon 19/8		Wed 21/8			Sat 24/8
Briggens House Hotel, Stanstead Abbotts	£120	£49	£49	£49	£49	£49	-	-	£55	£120	£120	£120	£120	£120
Heythrop Park Hotel Golf & Country Club ★★★ NEXT>	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300	£300
The Grange Bracknell Hotel, Berkshire ★★★	£195	£110	£110	£110	£110	£70	£70	£70	£110	£110	£110	£110	£70	£70
The Old Ship Hotel, Brighton ★★★ NEXT>	£155	£75	£75	£110	£110	-	-	£150	£130	£130	£130	£130	£150	£150
The Oxford Hotel, Oxford	£149	£110	-	-	£98	£110	£110	£110	£110	£110	£110	£110	£110	£110

Figure 13: Screen 2 example from Wotif.com demonstrating selection of hotel

Room	Full		Tax Inclusive Rate Per Room GBP								
Description	Rate	Mon 12/8	Tue 13/8	Wed 14/8	Thu 15/8	Fri 16/8	Sat 17/8	Sun 18/8	Mon 19/8	Tue 20/8	
Executive Double	£190	£140	-	£140	£140	-	£110	£110	£140	£140	
Standard Twin	£160	£130	-	£130	£130	£90	£90	£90	£130	£130	
Standard single	£160	£95	-	£95	£95	£40	£40	£40	£95	£95	
Standard double	£160	£120	-	£120	£120	£90	£90	£90	£120	£120	

Figure 14: Screen 3 example from Wotif.com demonstrating selection of rate

6.1.2 [D] Single screen

Enter search & book criteria: Dates of stay Hotel Rate / room Guest information (including multiple rooms / occupancy) Payment information [SUBMIT]

Figure 15: single-screen flow

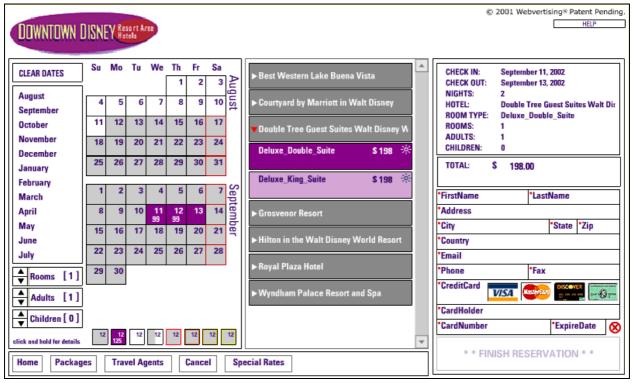


Figure 16: Single-screen process from iHotelier / Downtowndisneyhotels.com

How it works

The user can start anywhere on the screen. Date entry is on the left, hotel and room / rate selection is in the middle. Guest and payment information is on the right.

As dates are changed, different hotels and rooms / rates are available.

6.2 Directory styles

6.2.1 [E] Directory of hotels (multiple destinations)

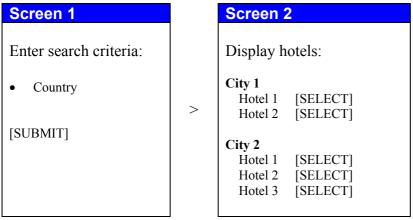


Figure 17: two-screen flow for hotel selection using a directory

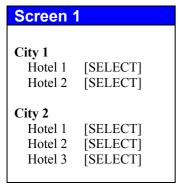


Figure 18: single-screen flow for hotel selection using a directory

Online reservation		
Berlin proArte Hotel	<u>Bonn</u>	Braunlage Berghotel
<u>Bremen</u>	<u>Darmstadt/Frankfurt</u> Konferenzhotel	<u>Darmstadt/Frankfurt</u> Rhein-Main Hotel
<u>Frankfurt/Main</u>	Fulda Hotel Am Schloßgarten	<u>Gelsenkirchen</u>
Halle/Saale	Hamburg Hotel Reichshof	
Hannover Airport Hotel	Hannover Grand Hotel	Hannover Stadthotel
Heringsdorf/Usedom Hotel Kaiserhof	Bad Homburg/Frankfurt Kurhaushotel	Kiel Hotel Bellevue

Figure 19: Example of a directory of hotels from Maritim.de

6.2.2 [F] Direct entry of date and hotel at start of reservation process

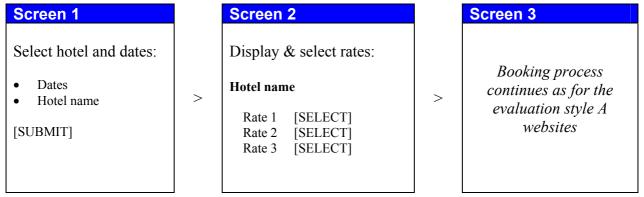


Figure 20: 3-screen flow

Figure 21: Select specific hotel and enter dates (Jurysdoyle.com homepage)



6.3 Analysis

In section 5.1.3 we noted that 54 of the 87 websites we evaluated used evaluation styles A or B.

TABLE 13: Other booking process styles

Other booking process styles	Travel	Hotel	Hotel	Total
	agency	only	chain	
C				
Four-screen or Multi-screen	-	2	-	2
Example: Wotif.com				
D				
Single-screen	-	1	-	1
Example: Downtowndisneyhotels.com				
E				
Directory or map	-	8	17	25
Example: Maritim.de				
F				
Directory combined with date entry	-	2	3	5
Example: Jurysdoyle.com				

Source: Travel UCD Research, January 2003

Table 13 shows that the remaining 33 websites are divided into 4 other significant styles.

These can be grouped into two types – directory style and exotic designs.

Exotic styles (C&D)

Style C – Wotif.com

One of the problems with designing a booking process that requires user input of information in a different order to other sites is that users have a preconception of what they need to do and what the site will offer them. Wotif.com only offers hotel bookings for the next 13 days and markets itself as a last-minute accommodation website. It does not have a date-entry field on the first or second screen – a common feature found on the majority of other travel websites.

In our usability testing, seven of the 12 users failed to fully understand how the site worked and failed to complete the tasks that were set. The two major problems we observed were:

• The users were looking for a method to change the dates. They were not clear that the website only had availability for the following 13 days.

• Users didn't immediately understand how the rates table was laid out, and they didn't understand what the numbers were referring to.

 $Style\ D-Downtown disney hotels.com$

The Downtown Disney Hotels website is a single screen website, created in Macromedia Flash.

From a booking process design, what is interesting is that the user may jump in at any stage in the process – for example selecting the hotel before the date or selecting the rate before the number of rooms required.

We applaud iHotelier for the creation of the single-screen booking process although the current system is not without its usability issues. In testing conducted by Travel UCD, seven of the 12 users were unable to fully use the website to calculate what an average daily rate for a hotel would be in a particular month, a key requirement of a hotel reservation site.

We should be careful not generalise about single-screen booking processes based on just one implementation – although this is a booking-process style to keep an eye on in the future – in particular as the acceptance of Flash applications becomes more prevalent.

Summary

If you are considering an exotic booking process style that is different to the norm, pay extra attention to user-interface design issues. Users will not give you much time to learn how to use your website. If they cannot grasp it, they may go to another less intimidating design.

Directory styles (E&F)

One of the characteristics of a directory style website is that users select hotels from a list or map.

The directory style (E) is very common with hotel chains for the following reasons:

- Enables the user to browse the hotel properties for information without having to enter a date and commence the reservation process (the user's goal may not be to make a reservation) this is good for marketing the hotels
- There is minimal requirement for the user to compare rates and availability between different hotels on the same website, unlike on the travel or hotel booking agency websites, as the user may be looking for a specific hotel.
- Less technology dependent than evaluation style A or B
 - o Doesn't require to implement search and evaluate functionality or extensive databases
 - o Doesn't require to check rates and availability against multiple properties
 - o Can link to existing single property reservation pages
 - o Can be created in static HTML, rather than dynamic page creation

The directory style (E) is also very common with smaller budget websites. In particular, affiliates and private / white labels of the leading hotel reservation websites tend towards creating

directory style websites. These are inferior designs, but they do benefit from the minimal technology requirements, and are still capable of producing a steady stream of reservations.

Improving the directory style website for hotel chains

One enhancement that can make the booking process more streamlined is to allow the entry of dates alongside the directory (F) (usually a drop-down listing of all properties in a hotel chain). Jurysdoyle.com is a website that has, on its homepage, a reservation tool that works in this way. It also supports the conventional directory style.

For this report we did not undertake any specific usability testing on a directory style website. However, our analysis of style A and B websites, on aspects such as multiple rooms, uneven occupancy and reservations for children, will be directly applicable to directory style sites.

7 Booking process design guidelines

The following guidelines indicate what we consider best industry practice. They are not 'set in stone' but should be considered in context with your own site-design goals.

We do not want to stifle innovation; we simply want to draw your attention to the factors that will work in a majority of hotel booking website scenarios. You can use the guidelines as a checklist for existing and proposed designs.

7.1 Overall structure of the booking process

Travel and hotel booking agency

- 1. In order of preference, you should aim to implement:
 - a. Booking process style B (all relevant rates displaying)
 - b. Booking process style A (range of rates displayed FROM > TO)
 - c. Booking process style A (FROM rate showing)

Hotel chain

- 2. If you only have a few properties with minimal overlap in any particular location, use either directory style E or F.
- 3. If you have multiple properties in an particular location, your requirements will be similar to a travel or hotel booking agency. Guideline 1 is therefore the most appropriate.

General

- 4. If you are planning an 'exotic' booking process, ensure that the difference is clear to users and that it is explained well.
- 5. Consider creating functionality that gives users a quick overview of the rough costs for different quality hotels in a city, to help with budgeting prior to deciding to travel. This will save users from devising their own navigation strategy on how many dates or rates to check in order to generate their own average price.
- 6. If you are using a booking-process style, such as style A, where a user has to select a hotel prior to seeing what rates are available, ensure that the hotels that the user has previously viewed are marked in some obvious way. This will help to stop users accidentally selecting the same hotel again. A simple method of implementation is to use the default browser behaviour of letting the font colour change on visited hyperlinks.

Multi-room reservations

- 7. Aim to allow all multi-room and uneven occupancy combinations to be booked online:
 - a. one room, for two adults
 - b. one room, for one adult
 - c. two rooms, each with two adults (same room type / rate, same occupancy level)
 - d. two rooms, each with one adult (same room type / rate, same occupancy level)

- e. two rooms, one with two adults, one with one adult (same room type / rate, different occupancy level)
- f. two rooms with two adults in each, one a superior double, one a standard double (different room / rate type, same occupancy level)
- 8. If you cannot implement all multi-room combinations, let the user knows that they can achieve their chosen combination by completing the entire reservation process multiple times
- 9. The entry of multi-room and occupancy requirements should either be at the start or be integrated into the booking process (to enable the rates with the correct occupancy levels to be displayed).
- 10. Place the multiple-room booking functionality in all booking-process paths rather than only on an advanced search page
- 11. If you are asking the user for the number of guests at the start of the booking process, make it clear whether your are referring to the number of guests *per room* or *total number* of guests

7.2 Displaying rate values

- 12. Let users know whether the rate is for the *total stay* or *per night*, whenever a rate or rate range is stated
- 13. Let users know whether the rate is per *person* or per *room*, whenever a rate or rate range is stated
- 14. Let users know whether the rate is inclusive or exclusive of tax or supplements.
- 15. Let users know whether the rate is inclusive of value added elements, such as breakfast
- 16. Let users know whether the rate is quoted for single or double occupancy in particular if the user has not yet supplied that information at the start of the booking process.
- 17. Aim to show rates that are inclusive of sales tax, wherever possible.
- 18. Display the currency for each rate.

7.3 Children

- 19. If you allocate children to rooms, ensure that it is clear to the user whether they have to allocate at least one adult to each room
- 20. Ensure that you mention, in the help or FAQ section, an explanation of the regulations surrounding reservations including children
- 21. Ensure that the age that a child is considered an adult, within each hotel, is clearly shown

7.4 Multi-room check-out

- 22. *Special requests* Allow users to input a short text message specifying a request for each room in a multiple-room reservation
- 23. *Smoking / non-smoking* Allow users to specify whether each room in a multiple-room reservation is a smoking or non-smoking room
- 24. Enable the user to enter a guest name for each room they are reserving
- 25. Indicate that these requests are requests only, and cannot be guaranteed by the hotel

8 Conclusion

Travel website design, like other large web design projects, is primarily about constraints and trade-offs between competing approaches.

The examples of good design in this report represent best-case design in a non-constrained world. The examples of sub-optimal design are highlighted not to criticise any particular company but to serve as examples for future projects.

No one works in a non-constrained world. And an outsider cannot know what constraints have been applied to any particular project – or even what the original project goal was. This can lead external observers such as ourselves to make an incorrect conclusion based on incorrect assumptions.

In general, hotel reservations websites have similar goals and are based on similar technology. Therefore we are confident that much of the content in this report is directly applicable to all hotel reservation websites.

Is there a perfect hotel reservation process?

There is no such thing as the 'perfect' hotel booking process – only booking processes that are better aligned to the needs of different marketplaces and different groups of users.

There are, however, two leaders in terms of user-interface design, among travel agencies and hotel booking agencies in the B2C hotel reservation sector.

Expedia.co.uk is a good example of a website that allows users to evaluate different options in a specific city (a 'style B' website). Our usability testing demonstrated that users found this hotel evaluation easy to conduct. Nevertheless, the site still has a number of issues to deal with, specifically with children and multi-room reservations.

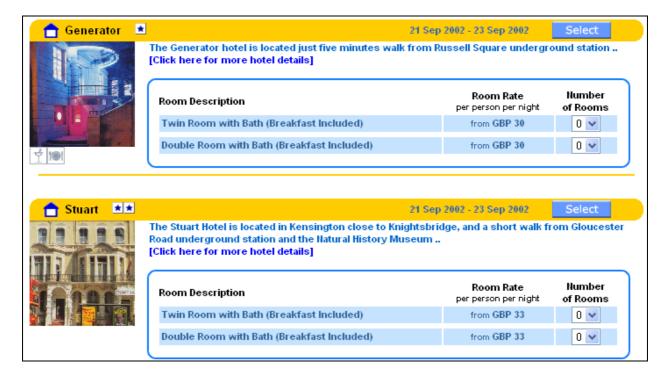
Lastminute.com has made a significant improvement in their booking process design, releasing a new user-interface during the period that the research was undertaken for this report. (Screen shots of the new design can be seen in figure 8). We believe the design could be improved still further if they considered developing a 'style B' website similar to Expedia.

Can these designs be combined?

Yes, there is an opportunity for a company to combine the best elements from Expedia.co.uk and Lastminute.com. The resulting website would have a hotel-results page that displayed rates in each hotel (as for Expedia.co.uk and style B websites) while allowing the selection of different room types with different occupancies (as for Lastminute.com).

The results page would probably look similar to the screen-shot, below, from TravelSelect.com, now part of the Lastminute.com network.

Figure 22: Hotel results page from travelselect.com (no longer live)



Please note, the page design, highlighted in figure 22 above, does not comply with many other guidelines outlined in this report, such as the rate range, the per night rate break down etc. but these would be relatively simple improvements to make

At the time of publishing, no live hotel-reservation website has a booking-process design that matches these aspects absolutely.

Last word

Do not forget that, from the user's perspective, the quality of a website is not just about the booking process.

Many other factors contribute to the user experience; such as appropriate marketing, helpful customer service, plentiful supply and spread of hotels at the right prices, well-written hotel descriptions and inspiring hotel photographs.

Travel UCD plans to write further reports on these issues in the future. To hear when further reports are published, please subscribe to the newsletter at http://www.travelucd.com

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9 Appendix

9.1 Usability testing

A usability test involves asking representative users to conduct tasks on the websites under evaluation. For this report we conducted two tests, each using 12 users.

In the first usability test, five of the 12 users had previously booked travel online, the others were regular web users (but not web designers or people who work in the travel industry). The users in the second usability test were similar to those in the first group; again five of the 12 users had previously booked travel online.

A usability test with 12 users is not statistically significant, but it does provide sufficient information for experienced usability test co-ordinators to understand the design issues.

In the following section we list the tasks that were conducted in the usability testing, and the sites under evaluation. We also detail other observations that we saw during the testing, although not directly related to the subject of this report.

You can run similar tests on your own websites, using the same tasks, to compare the usability of your sites with those covered by our research.

9.1.1 Test #1 – Focus on Phase 1 – Search and evaluation

In the first usability test we reproduced the process a user would experience when considering a leisure travel holiday or city break.

Firstly we looked at investigated how users create a rough mental budget for travel at a certain time of the year, without knowing their exact dates of travel.

We then reconstructed the second stage that the user experiences on a travel website. We gave each user a specific budget and fixed travel dates and asked for a list of properties and rooms that could be booked within the budget.

In this first test all bookings were for a single room.

9.1.1.1 Tasks used

Each user had two tasks to complete on each of the four websites under evaluation.

TABLE 14: Tasks used

Task	Purpose
You are planning a visit to XXX for a mid-week city break in MONTH, YEAR	See how a user approaches the
Before you finalise your travel plans, you want to know how much it may cost.	problem of creating a rough budget for
Question	their trip
What should you budget (in total) for three nights stay?	
(You are looking for a double bed for two adults in a low-price hotel)	
You are planning a visit to XXX for a mid-week city break.	Finding a hotel that
You are planning to stay for three nights (DATES GIVEN) and have a maximum budget of £100 per night (150 EUROS)	matches a budget and specific room type
You plan to share a room with your friend, so you are looking for a room with two single beds (a twin) or two double beds – in a medium-quality hotel.	
Question Please list up to three hotels that match this budget and room type.	

We chose four different locations so there would be no possibility of a user taking the answer from one task and using it for another. The four locations were:

- Berlin, Germany
- Rome, Italy
- Athens, Greece
- Walt Disney World, Orlando, USA

The exact dates of stay were supplied in the second task and were set for three months in the future. The exception was Wotif.com, where the dates were within 13 days of the test date. Wotif.com only holds last-minute accommodation. Only the month (three months ahead of the test date) was given for the first task.

9.1.1.2 Sites used in the usability test

TABLE 15: Websites evaluated in the usability test

Site name	URL	Style
Opodo	http://www.opodo.co.uk	Style A
Opodo	nttp://www.opodo.co.uk	(See section 5.1.1)
Evnadia	http://www.expedia.co.uk	Style B
Expedia	nttp://www.expedia.co.uk	(See section 5.1.2)
Wotif	http://www.yyatif.com	Style C
WOUL	http://www.wotif.com	(See section 6.1.1)
Downtown Disney	http://www.downtowndignowhotals.com	Style D - Single screen
Downtown Distiey	http://www.downtowndisneyhotels.com	(See section 6.2.2)

Source: Travel UCD Research, January 2003

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9.1.1.3 Task failures occurring in the usability test

Every task failure made by a user during a usability test is an opportunity to learn more about the design.

For this evaluation, we recorded task failures that fell into the following category:

• Unable to answer the question set as the task

If the user created a budget, but used an incorrect set of dates (such as for the date of the test rather than the date for the proposed trip), this was not counted as task failure.

TABLE 16: Task failure, by site

Site name	Task #1 Create budget Task #2 Locate specification hotel and raise			
Wotif	7 (combined)			
Downtown Disney	7 (combined)			
Opodo	1 5			
Expedia	0 0			

Source: Travel UCD Research, January 2003

Each of the four sites was visited 12 times, so the maximum score could be 12 errors (maximum one error per task). For Wotif and Downtown Disney, the scores between the two tasks have been combined. Once the user had failed the first task on either of these sites, they were in no position to answer the second task without any explanation of how the website worked.

TABLE 17: Breakdown of task failures

Site name	Explanation							
Wotif	Date entry Five users failed to get started using the website, as they were concentrating on inputting dates of stay. There is no 'date entry box' on this website as the dates are selected after the hotel, as part of the checkout screen. Only dates in the next 13 days can be reserved. This is not stated on the website.							
	Tue Wed Thu Fri Sat Sun Mon Tue							
	21/1 22/1	23/1	24/1	25/1	26/1	27/1	28/1	
		£110	£90	£90	£75	£110	£110	
	£50 £50	£50	£50	£50	£50	£50	£50	
	These users could see how the table was laid out – but were not able to see how to move the date forwards. Two users tried highlighting the orange dates, shown above, hoping to find some functionality there. (There isn't any) **Rates table layout** Two users failed to understand how to read the rates table so could not complete the tasks				hoping to find some			
Opodo	Problems with 'Book it!' Two users did not want to select 'Book it!' as they were not looking to make a reservation, only to find the rates. They were unsure how to progress, so remained on the multi-hotel display page. Condon, United Kingdom See Rate Details See Other Rates				(GB Pound) See Rate Details			
	Selected 'See rate details' and 'See other rates' to go to rates page The user, with some justification, assumed that the hyperlinks for 'See rate details' and 'See other rates' would take them to a page where all rates would be displayed. They were confused when, for that hotel, there was minimal information that assisted the user about rates.							
	False positive on the 'guestroom' information							
	Check Alternative Book It Gallery							
	£ Rates - Guesti	rooms	- Serv	vices	& Am	enitie	s - Act	tivities
	The user, when on the hotel detail found the information they require completing the task, hence a 'falso	ed, but t	this pag					

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Site name	Explanation			
Downtown Disney	Incorrect adult entry Two users did not add the second adult to the reservation, in order to achieve a correct double- occupancy level rate. One of these users was trying to click on the reservation summary on the right in order to add further adults, rather than the icon on the left. (Both shown below)			
	CHECK IN:			
	Date selection Two users couldn't work out how to select a date.			
	1 Feb			
	2 3 4 5 6 7 8 TY			
	9 10 11 12 13 14 15			
	16 17 18 19 20 21 22			
	23 24 25 26 27 28			
	On the calendar, you have to select both a start and an end date. The users assumed that if one block was showing, then a date had been entered.			
	Per night and total cost One user confused the total price (displayed in the middle, in the rate box), with the per night price. Because they had selected three days, they assumed there were no hotels within their budget, which was a per night budget.			
	Rate selection One user never selected a rate, so a price was never displayed. This caused sufficient confusion to prevent the user from completing the task.			
	Couldn't work it out One user couldn't work out the booking process at all.			
Expedia	No task failures All users successfully completed all tasks on Expedia, in this usability test			

9.1.1.4 Other observations and notes

Table 18 lists other observations that we noted during the usability testing, although none of these directly led to task failure.

TABLE 18: Other observations and notes

Site name	Observations
Wotif	Of the five users who were OK using this website: • three were OK but initially searched hard for the date entry • one was OK but initially struggled to understand the rates table layout
Downtown Disney	Sound effects One user mentioned that they did not like the sound effects
Opodo	Date entry Four users, when looking to form an estimated rate for a city booking three months in the future (task #1), used the default date – which is set to 'today'
Expedia	Evaluation of hotels Users tended to evaluate significantly more hotels on Expedia than on Opodo, probably because the required information (hotels and rates) was on a single page. Users could scroll up and down, rather than select forwards and backwards to the rate display page.
	All 12 users only reviewed the first page of results – both for creating a budget and for compiling a selection of hotels that matched their absolute requirements.
	Date entry Seven users did not, as part of the budgeting task, enter a date at all – they just entered a city. Expedia will return a list of hotels in this case, but the hotels do not have any rates or availability for the user to review. The user must instead select the hotel, scroll down the hotel details page, enter a further date and then review a rate. ie the first rate that can be seen is two screens deeper than optimal. In these situations, after a couple of minutes, we asked the user to enter a date on the first search box – and continued the task as per usual. We do not count this as a task failure, but we did assist users in a way that would not have happened if they had been alone.
	11 users entered just one date combination to create an estimated price (Task #1) for a city. One user entered two different dates.
	Tax All 12 users failed to notice that for Expedia special rates (credit card prepayments) the rates were quoted excluding sales tax (VAT in the UK). Therefore the budgets and sample rates the users listed in their responses to the questions were incorrect.
	The additional sales tax is only viewable when the user selects the rate, on the following screen. (Note: since this usability testing took place, Expedia have changed this display – and now, on the hotel results screen, all rates are displayed inclusive of sales tax)

9.1.2 Test #2 - Focus on Phase 2 - Selection

In the second usability test we focused on completing an entire reservation, but with different combinations of rooms, rates and occupancy levels.

9.1.2.1 Tasks used

The second usability test involved the following standard task:

You are travelling to London and are looking for a hotel for two nights, 20^{th} to 22^{nd} of *[INSERT FUTURE MONTH]*

Book two hotel rooms in any hotel

[INSERT room information from table below]

(A double room is a room with a double bed. A twin room is a room with two single beds or two double beds)

TABLE 19: Tasks used

Task	Purpose
Room A - Double Room, two adults (Note, the text for the task read 'Book a hotel room in any hotel', rather than two rooms, for this task)	Standard requirement
Room A – Double room, one adult	Same room / rate type
Room B – Double room, two adults	Different occupancy level
Room A – Double room, two adults	Different room / rate type
Room B – Twin room, two adults	Same occupancy level
Room A – Double room, two adults	Reservation with child
Room B – Any room, one child (15 years old)	Different occupancy level

9.1.2.2 Overview of the sites evaluated in the usability test

TABLE 20: Websites evaluated in the usability test

Site name	URL	Multi-room / Occupancy style
Opodo	http://www.opodo.co.uk	End
Expedia	http://www.expedia.co.uk	Start, but on advanced page
Travel Select	http://www.travelselect.com	Start
Accor	http://www.accorhotels.com	One room at a time. A 'looping' process enables the user to reserve up to three rooms

Figure 23: Enter occupancy and number of rooms at the end (Opodo.co.uk)

Crowne Plaza London Check-in Date: 20 Apr 2003 45-50 Buckingham Gate Number of Nights: 2 London SW1E 6AF United Kingdom Available Rooms Please enter the number of adults and children staying in each room. Note that children age 12 and older are charged the same rate as adults. Please include them in the quantity entered in the No. of Adults box.				
Summary		No. Rooms Available	No. Rooms Requested	No. of Guests: Adults/Children Per Room
Standard Twin. Number of beds: 2. Maximum number of guests: 2.		4		
Standard Double. Number of beds: 1. Maximum number of guests: 2.	275.00	4		
Superior Twin. Number of beds: 2. Maximum number of guests: 2.	305.00	4		
Superior Double. Number of beds: 1. Maximum number of guests: 2.	305.00	4		
Deluxe Twin. Number of beds: 3. Maximum number of guests: 3.	335.00	3		

Figure 24: Enter occupancy and number of rooms at the start (Expedia.co.uk)

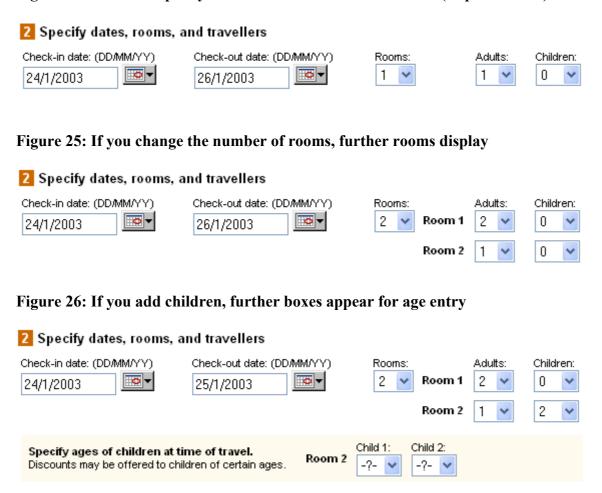


Figure 27: Enter occupancy and number of rooms at the start (TravelSelect.com)



Figure 28: Loop through the process to add rooms (Accorhotels.com)



9.1.2.3 Task failures occurring in the usability test

Every task failure made by a user during a usability test is an opportunity to learn more about the design.

For this evaluation, we recorded task failures that fell into the following category:

• Inability to reach check-out stage with the correct number of rooms, each room with the correct number of guests

TABLE 21: Task failure, by task

Site name	Number of failures
Reservation with child	
Different occupancy level	5
Room A – Double room, two adults	3
Room B – Any room, one child (15 years old)	
Different room / rate type	
Same occupancy level	2
Room A – Double room, two adults	2
Room B – Twin room, two adults	
Same room / rate type	
Different occupancy level	2
Room A – Double room, one adult	
Room B – Double room, two adults	
Standard Requirement	1
Room A - Double Room, two adults	1

TABLE 22: Task failure, by site

Site name	Number of failures
Expedia	4
Accor	4
Opodo	2
Travel Select	0

Each of the four sites was visited 12 times, and each task conducted 12 times – so the maximum score could be 12 errors (maximum one error per task)

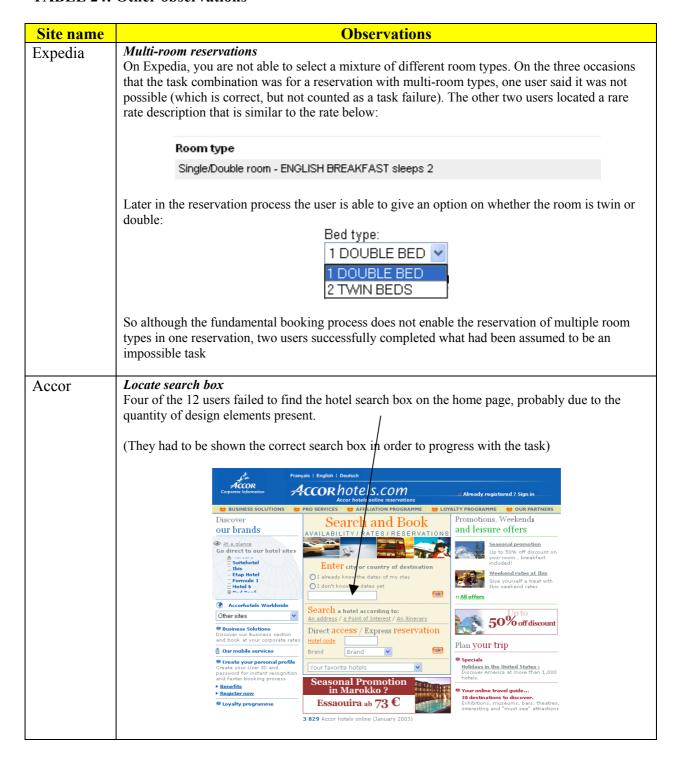
TABLE 23: Breakdown of task failures

Number of errors	Site name	Explanation		
3	Expedia	Children Problems with the method of adding children to rooms. All three users were confused by the automatic adding of an adult to the room with the child:		
		Rooms: Adults: Children: 2 V Room 1 2 V 0 V Room 2 1 V 1 V		
		The users tried to remove the adult, but were unable. The site offers no explanation as to why the process occurs. Two of the users said they would contact the site at this stage. (Refer to section 5.2.2 about children rule)		
2	Accor	Second room User unable to find the means to add the second room		
1	Accor	Children The user put child in first room as a child (when, on Accor, children over 12 should be classified as adults) – and also put an adult in the same room. On the second room the user entered a further two adults. The reservation therefore was for the incorrect number of people		
1	Opodo	Children User entered child alone in room. Submitted. Read error message (message does not say that the child may not be alone in a room). Returned to previous page. Gave up as could not see how the child could be entered.		
1	Expedia	Second room Correctly adds one room but then unable to find out how to add second room. (They missed the option for a multi-room reservation on the homepage)		
1	Accor	User oversight Incorrect entry of number of adults in the first room. Didn't check their entry prior to commencing checkout		
1	Opodo	Misread occupancy column Puts three adults in one room (misreads the column title which is number of adults per room, rather than total number of adults)		

9.1.2.4 Other observations

Table 24 lists other observations that we noted during the usability testing, although none of these directly led to task failure.

TABLE 24: Other observations



Travel UCD - consultants in travel and hospitality website design http://www.travelucd.com

Site name	Observations						
Opodo	Uneven occupancy On the Opodo site you cannot arrange uneven occupancy for the same rate. We were therefore expecting some interesting results for the task that used this combination. One of the three users with this combination failed the task for a reason specified in table 23, but we were surprised how the two other users succeeded with what we had assumed would be an impossible task.						
	Summary		No. Rooms Available				
	Deluxe Single. Number of beds: 1. Maximum number of guests: 1.	190.00	4				
	Standard Double. Number of beds: 2. Maximum number of guests: 2.	210.00	4	1	2		
	Superior Double. Number of beds: 2. Maximum number of guests: 2.	235.00	4	1	1		
	The two users succeeded by reserving different rate types – but still for double rooms (as above)						
	Error message for children All three users who tried to reserve a room for a child alone in a room received the following error message after submitting the page:						
	Missing Entry You must enter a numeric value in the No. of Adults box.						
	Two of the users guessed that this means the child should be entered as an adult and went on to successfully complete the reservation, although they still didn't understand why there was a problem. The third user couldn't work out what was wrong and never completed the task.						
Travel Select	Two users asked in the usability test whether this guest entry, from the hotel search page, was <i>per room</i> or refers to a <i>total number of guests</i>						
	No. Persons 2 adults ▼ 0 children ▼						

9.2 Sites used in the statistical analysis

TABLE 25: Sites used in the statistical analysis

Travel agency (16)	Hotel only (43)		Hotel chain (28)
Asiatravelmart.com Ebookers.com Expedia.co.uk Itn.net Lastminute.com Lastminutetravel.com Opodo.co.uk (Worldres) Orbitz.com Travelfusion.com Travelhero.com Travelnow.com Travelocity.co.uk Travelstore.com Travelworm.com Trip.com Zuji.com	1800usahotels.com 4hotelsnow.com Activehotels.com All-hotels.com Betterhotelrates.com Bookings.org Bhrc.co.uk Downtowndisneyhotels.com Eurhotels.com eHotel.de Fastbooking-hotels.com Holidayhotels.com Hotelbook.com Hotelcity.com Hotelcub.net Hotelconnect.co.uk Hotelguide.com Hotellub.com Hotellub.com Hotellocators.com Hotelquest.com Hotels.com Hotels.com	Hotelscentral.com Hrs.de (English) Inntopia.com Laterooms.com Leisurehunt.com Lodging.com Londontown.com Medhotelsdirect.com octopustravel.com Otedis.com Placestostay.com (US) Quickbook.com Roomsnet.com Superbreak.com Tablethotels.com Travelweb.com Turbotrip.com Usanotelguide.com Usarooms.co.uk Venere.com Wotif.com	Accorhotels.com Bestbestern.com Choicehotels.com Corushotels.co.uk Devereonline.co.uk Fourseasons.com Hilton.com Hyatt.com Jamesoninns.com Jarvis.co.uk Jollyhotels.it Jurysdoyle.com Kempinski.com Lemeridien-hotels.com Marriott.com Maritim.de Mill-cop.com Moathousehotels.co.uk Orient-express.com Premierlodge.co.uk Radisson.com Sixcontinentshotels.com Starwood.com Thistlehotels.com Travelinn.co.uk Travelodge.co.uk Utell.com

Source: Travel UCD Research, January 2003

[END OF REPORT]