

Mobile Air Ticket Booking

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Air ticket booking process on the web (simplified)

1 Flight search

2 Search results

Departure	Arrival	Company	Status	Price	Fare
Rome, Italy	Rome, Italy	Alitalia	Direct	119.00	119.00
Rome, Italy	Amsterdam, Netherlands	Alitalia	Direct	119.00	119.00
Amsterdam, Netherlands	Rome, Italy	Alitalia	Direct	119.00	119.00

3 Passengers info

4 Payment

Flight	Departure	Arrival	Aircraft	Miles/Alto
AC 333	Saturday, 12 April	Rome, Italy	airbus a321	1483 miles **
AC 338	Saturday, 12 April	Rome, Italy		

5 Confirmation

Type of Flight	Time Limit
Domestic Italy	0
International	45
Intercontinental	0

CLOSE X



Booking task characteristics

- cognitively complex task even on fully-functional internet-access devices such as desktops
- time-consuming – may well take tens of minutes on a full-fledged PC
- taxing on attention and mental load
- requires considerable text input – especially when entering passenger data and payment details

Characteristics of the task make their implementation barely suitable for a mobile device because mobile use contexts are not tolerant to long cognitively-loaded interactions and massive text input

The challenge



To squeeze a booking website into a mobile?

My first reaction:
“This is impossible!”

(Because I already had 4-years experience in online travel usability)



Expected usability team's deliverables

- User interface guidelines for mobile air ticket booking +
- Wireframe design of user interface +
- Usability testing of a working prototype implemented on a mobile phone -



Definition of prospective users

Market research performed by travel agent on their existing client base showed:

- in normal situations **leisure travelers** would almost *never use a mobile phone for booking tickets* (especially in the case of family vacation planning)
- active **business travelers** are potentially more grateful users of the m-ticketing technology (e. g. in situations of rush travel)

These results are in concordance with an independent research conducted in South Africa (Lubbe & Louw 2009)



User interface guidelines (1)

Thoroughly define the target user:

- investigation into characteristics of prospective users, contexts of use and technology adoption factors *must be a starting point* in developing applications for airline m-ticketing
- different cultures developed different traditions for mobile services use, for example:
- in Japan 5% of all domestic flights are booked on mobile phones – because of the length of their commute to work, people in Japan make more surfing on mobiles than on PCs



User interface guidelines (2)

Make mobile application a supplement to a website:

- avoid heavy text input and instead use data from the user's profile entered via website and stored on the central server
- temper the user's fears about safety of transactions since no sensitive information will be transferred through mobile channels
- allow users to make urgent changes and cancel flights booked via the website
- the history of previous travel and user preferences can be borrowed from the central server to prefill the fields in the mobile interface with smart defaults



User interface guidelines (3)

Reduce mobile functionality to an absolute necessary minimum:

- roundtrip/one-way flights
- from/to destinations
- departure/return dates
- preferred departure/return time of day
- number of adults, children and infants → 1 adult
- economy/business class
- flexible dates
- direct flights only
- preferred airlines



User interface guidelines (4)

Provide support for multitasking and interruptions:

- mobile users permanently switch back and forth between the mobile tasks and external sources
- field study of mobile users in typical urban situations (Oulasvirta et al 2005) showed that continuous attention to the mobile device fragmented to bursts of just 4 to 8 seconds
- our earlier research (Burmistrov & Leonova 2003) revealed that *re-orientation* in the main task after attention switch-away is mainly responsible for performance degradation in interrupted tasks
- Recommendation: break the interaction into small pieces – typically one operation per screen
- Recommendation: provide attention cues to direct the user to a place in the suspended task



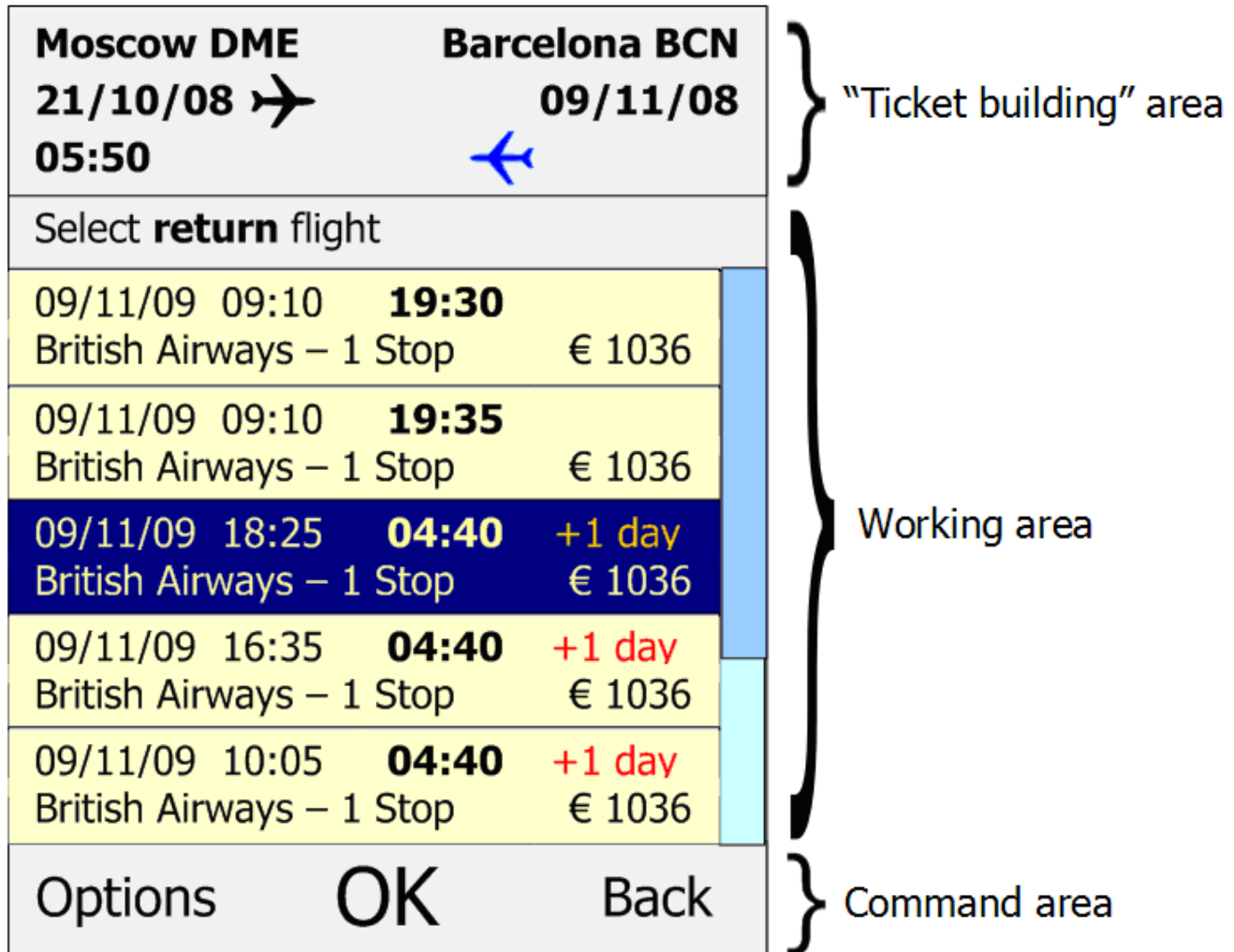
User interface guidelines (5)

Make application location aware:

- mobile applications for travel obviously benefit from location awareness
- location awareness is a clear advantage of mobiles over desktops
- provide the user with location-relevant information and smart defaults to reduce text input

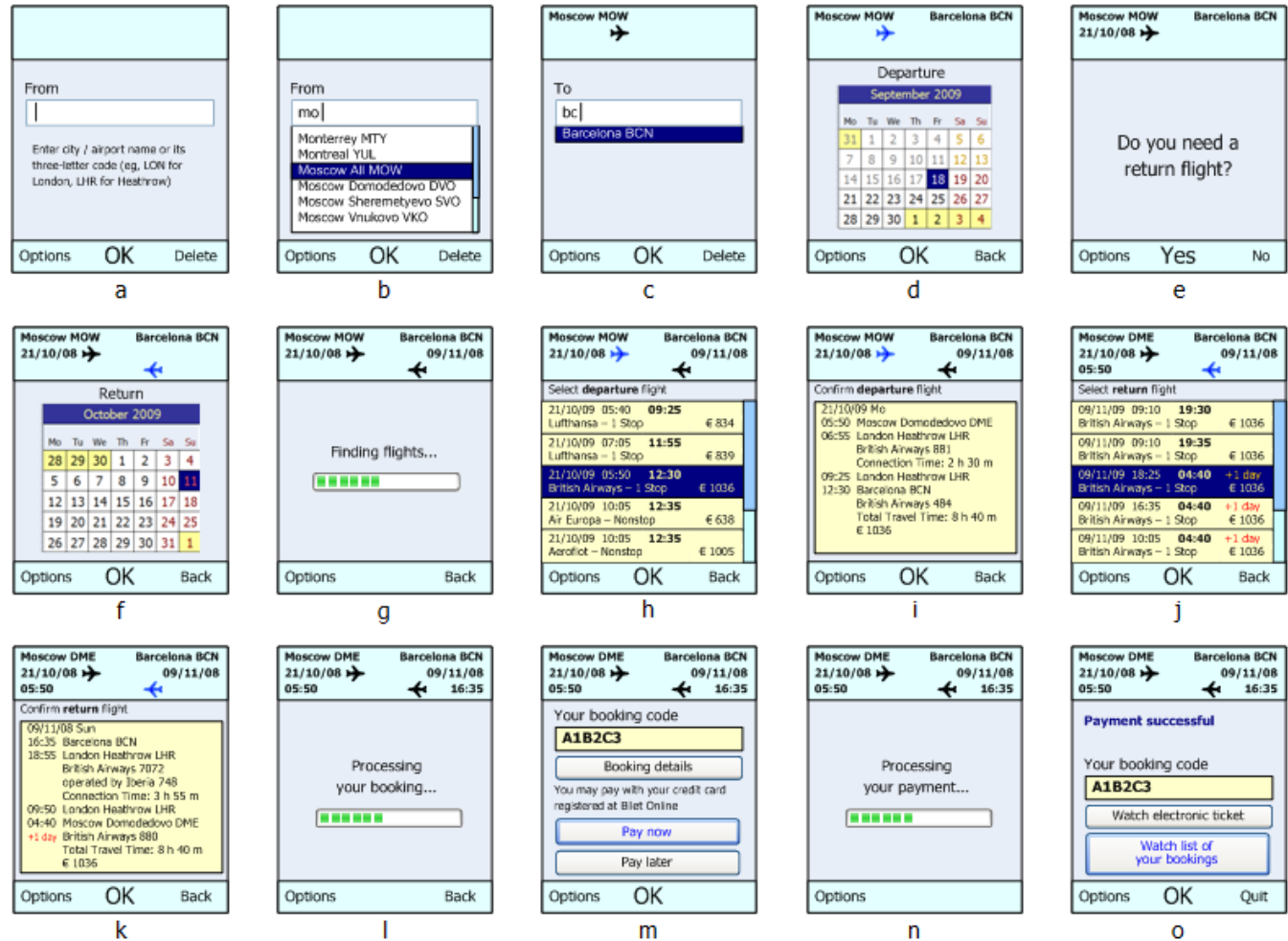


User interface design: Screen organization





User interface design: Booking process



**Thank you for your
attention!**

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