Service case studies:
The urban bus

IDEO

Character Profile

Name : Agnes
Age : 73 yrs
Status : Widow living alone

- Weather protection
- Easy board buses
- Smooth motion buses
- Instant / readable information displays
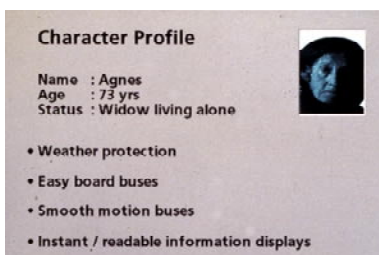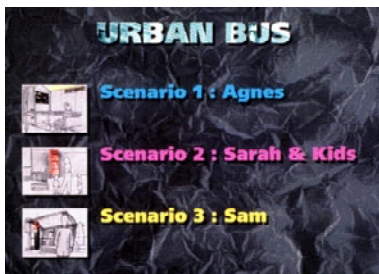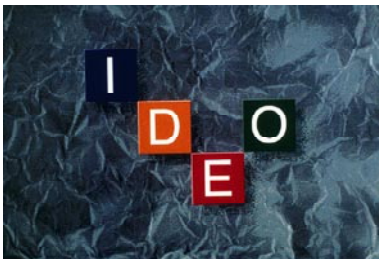

User-friendly design

Making technology user-friendly means not just thinking about the different needs and abilities of all the potential users but, as we have seen with the design of public access terminals, bringing a range of technologies together to achieve the goal of access for all. Public services in general do just this, they group together a whole range of technologies and activities that make it possible to coordinate, manage and for the public to benefit from the core service – local transport, medical care, refuse collection and so on. If these services are to be genuinely 'public' then they too have to be accessible to everyone. If someone in a wheelchair cannot get on to a bus, or an older person cannot read the caption to an exhibit in a museum, then these services cannot honestly be described as public.

This presents a real challenge for both designers and service providers. Large sums of money are invested in infrastructures like stations and airports, and in the things that go with them, ticket machines, information displays, public address systems, carriages and so on, and if these do not work for everyone then the service as a whole suffers. One answer is to establish profiles of 'critical users', the people who make demands on the service that go beyond those made by the 'typical' user. By considering their needs it is possible to ensure that the service works for the widest range of people, and the improvements and special features that are identified can improve the quality of the service for everyone. This offers benefits all round, and an in an era of increased privatisation and competition in the service sector, makes good commercial sense.

The way designers work with these user profiles is to develop scenarios based on characters who represent these 'critical' users. Giving a name and face helps personalise what could otherwise be a list of ergonomic and demographic data. Brainstorms and observation help to flesh out these characters into a profile of needs and preferences, and the act of telling each persons story can direct the design teams attention to important elements which can be integrated into the final concept. All before any detailed and costly design, engineering development and prototyping is undertaken.

The urban bus

In 1993, European Year of Older People, the UK Design Business Association and Design Age, the Royal College of Art's action research programme into design and ageing, issued a challenge to the design industry. The theme 'Designing for our Future Selves' offered designers an opportunity to contribute towards the aims of the European Year, and sponsorship from Apple Computers made it possible to present animated scenarios and design concepts to the public. As their winning entry, the London office of the international design company IDEO explored the design of a future bus system for London, including bus shelters, bus interiors and ticket service points. The aim of the design is to achieve a more effective and enjoyable travelling experience for all ages, cultures, and occupations, providing comfortable, quality-time travel and easy-to-use ticketing and information. Now read on…

Scenario

The town is London, the three characters are Agnes, Sarah and Sam, and these are their profiles and their stories.

Agnes is 73 years old, she is a widow and lives on her own. Travelling by bus is important for her both socially, visiting friends and family, and for getting backwards and forwards to the shops. She will benefit from weather protection and information about how long she will have to wait. When the bus arrives, it must be easy to board and give her a smooth ride. It is also a help if she knows where the bus is.

The bus shelter is enclosed, with seats and a large type information display, and raised up above the street. She can either step up into it, or walk up the ramp which makes the shelter wheelchair accessible. When the bus arrives she can walk straight in as the door is at the same level as the shelter. The driver's seat lets him turn to face her, which saves strain on his neck, and if he recognises her they can share a few words. Inside the bus there is mix of seating and standing room, and information about the bus journey.

Sarah is 34, she is a housewife with two children, she still works part-time and has a busy life. She will benefit from ease-of-use features that help her manage kids, shopping and so on, including a bus card, with convenient recharge points, easy to use machines, service help from the drive and generous but secure space for her bags and pushchair.

At the supermarket she can charge her bus card before she leaves, this saves her struggling with change on the bus, makes life easy for the driver, and also gives the bus company useful information about passenger journeys. Inside there is plenty of space for luggage and room for her to sit down with the kids.

Sam is 28, he is a businessman from Malaysia, in London he does not have a problem with language as he speaks English, but does not find things so easy in other European capitals. Like most visitors he needs to know where to catch a bus, where it is going and how the service operates. He also needs a range of payment options in case he does not have the right currency or the right coins.

Locating a bus stop is easy because of the big, bright signs, these don't just tell him this is a bus stop, they tell him where the bus goes and will sell him a ticket
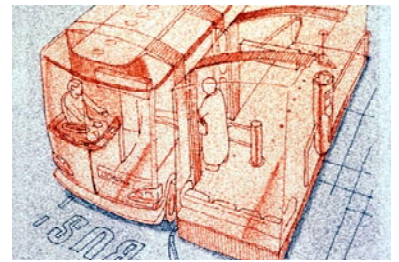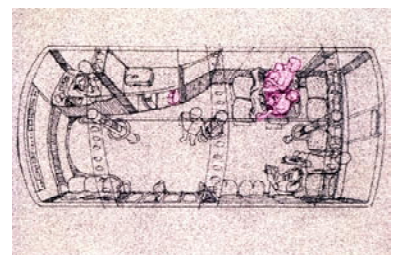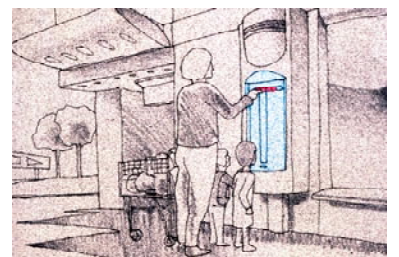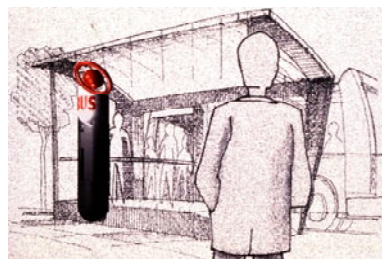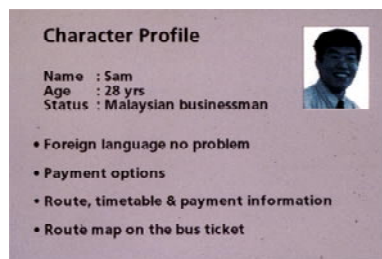

Character Profile

Name : Sarah
Age : 34 yrs
Status : Housewife with two kids

- Bus Card recharge points in convenient places
- Easy to use payment machines
- Service help from the driver
- Generous / secure baggage area on the bus

Character Profile

Name : Sam
Age : 28 yrs
Status : Malaysian businessman

- Foreign language no problem
- Payment options
- Route, timetable & payment information
- Route map on the bus ticket

too. He can pay in coins, with a note or a credit card, the instructions are clear and simple, and the sequence of operations is logical. Not only that, the ticket has a route map printed on it so he can check his progress with the signs inside the bus, and the tourist attractions are market too, so he knows when to look out for the famous landmarks he will be passing.

Where next?

IDEO's bus scenarios give an insight into design methods, and show how effective these techniques can be in considering the user-friendliness of a whole service, not just from the point of view of the customer, but also for the people who operate the service.

In the future service providers will want to know that they are meeting the needs of all their customers, from the point of view of legislation like the Americans with Disabilities Act (ADA) which is increasingly placing the onus of accessibility on private and public sector operators and, equally important, from the commercial viewpoint.

The unprecedented growth of the older population makes it a significant market sector which businesses need to attract if they are to succeed, the success of the disability lobby in pushing through legislation and promoting accessibility has raised awareness and put increasing pressure on service providers, and the combination of these two factors means that user-friendliness, inclusivity and accessibility are here to stay.

Design has something very special to offer here, because through design we can humanise technology as it evolves and develop a future vision for the future in which the perceived quality of goods and services is a measure of the extent to which they improve the quality of life of all their users