7.4 Design exercise: the power of centre in inclusive design

Objective

In this exercise you will be asked to rethink and redesign a common everyday object by assuming a strong focus towards the needs of a special group of users following the idea of inclusive design proposed by Don Norman.

Background

In his article titled *I wrote the book on user-friendly design. What I see today horrifies me* published on Fastcompany.com, Donald Norman, the author of well-known best-selling books on design such as *The Design of Everyday Things* or *Emotional Design* complains out of his own experience how companies and designers regularly disregard the needs of the elderly. This is not only inconsiderate on their parts, but also myopic for at least two reasons. First, elderly that are still active and that often have more time and disposable income than younger people now constitute a large untapped market. Second, and perhaps more important for us, designing for those who have specific needs associated to some level of temporary or permanent disability actually helps to create useful and innovative solutions for other group of users if not for everyone.

Here are a few examples of how the needs of the elderly are neglected by designers of consumer products as described by Norman in his article:

'Everyday household goods require knives and pliers to open. Containers with screw tops require more strength than my wife or I can muster. (We solve this by using a plumber's wrench to turn the caps.) Companies insist on printing critical instructions in tiny fonts with very low contrast. Labels cannot be read without flashlights and magnifying lenses. And when companies do design things specifically for the elderly, they tend to be ugly devices that shout out to the world "I'm old and can't function!" We can do better.'

Another example is loud restaurants and how a high level of noise is particularly obnoxious for elderly people suffering hearing problems. On the other hand, who would not want restaurants in which the level of noise does not stand in the way of having a nice conversation with your table companions? For that matter, who does not complain about (purposefully) unreadable labels or bottle caps that hurt our hands when we try to unscrew them?

Even more interesting are those cases in which innovative design happens by accidents from an initial category of users to another one that was not initially considered but that might benefit as well. Electric motorized small vehicles do not only help people with motor disabilities but can also be adapted to eco-friendly devices such as scooters or electric bikes for more sustainable urban micro-commuting. Similarly, the ramps around curbside and stairs built for the disabled are also appreciated by travelers dragging their luggage on wheels or parents pushing their strollers.

Norman refers to this approach to design as inclusive design.

We offer inclusive design as a way to experiment with the power of the centre. In this context, the centre is provided by a particular group of users with their specific needs and expectations. Design innovations for this special group can create spillovers that extend to other users by making the design more inclusive.

Instructions

The exercise requires you to identify these special needs and to derive a few structuring product specs from this list that will eventually drive the development of the whole product by following the steps listed below:

1. Identify an object that is normally not designed for a specific type of users. The generalist design of the object is supposed to make it useful for everybody, but, in reality, the design is just good for a generic majority and leaves out or underserved minorities with special needs. We propose to redesign a shopping cart for the elderly, but the reader is free to choose any other object.
2. List reasons why the generic design does not work (well) for the selected group of users and identify design problems based on this list. Use the idea of narrative closure to organize this list of needs as they emerge in specific situations of use.
3. Identify design solutions addressing a key problem and identify other users who might benefit from or appreciate these innovations. The identifications of such additional users can help to make the design less discriminatory. For instance, as Don Norman complains in his article, products that are designed specifically for the elderly 'tend to be ugly devices that shout out to the world, I'm old and can't function!' Making the design more inclusive should help to solve this problem. After all, who does not need an easier life?
4. Sketch the new design and provide a list of specs for it.

Product idea	Shopping cart	
User category for which the product is being redesigned	Elderly	
Key User problem	**Possible solution**	**Might also work for …**
A key problem that could provide a design centre is diminishing muscular strength. In the case of the shopping cart, this key problem translates into the general difficulty of maneuvering the cart.	Ergonomic handles. Lighter material.	Users with less strength due to conditions (e.g. pregnant women).

References
Elegant Design: A Designer's Guide to Harnessing Aesthetics
© Bloomsbury, 2022

Norman, D. (2019), I wrote the book on user-friendly design. What I see today horrifies me, *Fastcompany*, https://www.fastcompany.com/90338379/i-wrote-the-book-on-user-friendly-design-what-i-see-today-horrifies-me