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What is wayfinding?

In 1960, Kevin Lynch coined and defined the term wayfinding as “a consistent use and organization of definite sensory cues from the external environment” (Lynch 1960 p. 3). It refers to “behaviour that gets us to and from specific destinations successfully” (Allen 2008 p. 861).

How does it work?

“The basic process of wayfinding involves the same four stages: orientation, route decision, route monitoring, and destination recognition” (Lidwell et al. 2003 p. 260). Wayfinding can be broken up into three types that include commuting, which involves repeated travel between destinations; exploring, which involves traveling simply to investigate what is out there; and questing, which involves visiting new places that the traveler knows of, but has not yet been to (Allen 2008 p. 862). As observed by Lynch’s analysis of mental maps, it is important to note that people experience and remember their surroundings differently. Wayfinding is constant spatial problem-solving. The challenge is to make it accessible for everyone.

Why is it important?

“To become completely lost is perhaps a rather rare experience for most people in the modern city. We are supported by the presence of others and by special way-finding devices: maps, street numbers, route signs, bus placards. But let the mishap of disorientation once occur, and the sense of anxiety and even terror that accompanies it reveals to us how closely it is linked to our sense of balance and well-being.” (Lynch 1960 p. 4).

As people age, they experience changes in mobility, visual acuity and perception, hearing ability, recognition and reaction times, orientation and short- and long-term memory (Carman and Fox, 2008 p. 164). People of any age may become lost, but given these physical changes, the opportunity for disorientation becomes greater as we grow older. In addition, wayfinding ability becomes worse among people with dementia; those who regularly partake in outdoor trips were still affected (Sheehan 2010 p. 278). However, “people with dementia, like most older people continue to use landmark strategies in wayfinding” (Sheehan 2010 p. 278).

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Figure 1: Confusing signage can cause disorientation in older adults.



Figure 2: View of passageways, floors and escalators allows for better understanding of routes.



Figure 3: Stairs and elevator located close to the entrance allow for choice of route and landmarking.

“These age-associated limitations in navigation could potentially lead to restrictions in daily activities, resistance to new environments or difficulty in transitioning to new environments” (Head and Isom, 2010 p. 49).

It is important that physical activity is encouraged in older adults in order to maintain and potentially improve physical and mental abilities. It is important, too, that people become more informed about the outdoors and how to make better use of their environment (Carman and Fox, 2008 p. 164-5). This awareness can be encouraged through community “**design that is easy to understand, regardless of the user’s experience, knowledge, language skills, or current concentration level**” (Carman and Fox, 2008 p. 183). Various strategies and components may be incorporated within such a design.

Components of Wayfinding Design

Architectural: Paths can be a major aspect of wayfinding and may be accentuated by structure, decoration, lighting, vegetation, water, and texture of materials (Arthur and Passini, 1992 p. 129). Fencing and landscaping can also be designed to orientate and guide seniors and people with disabilities (Carman and Fox, 2008 p. 189). “**The natural and built environments provide the wayfinding person with a great variety of basic wayfinding cues**” (Arthur and Passini, 1992 p. 128). Buildings that draw attention to interior circulation will also enable wayfinding (Giuliano et al., 2001). For example, an open centre courtyard will give clues on how to move about the building (figure 2). Elevators and staircases located in closed proximity to entrances will provide options for movement and become natural landmarks (figure 3).

Graphic: “Designers improve wayfinding mostly through appropriate signage... Whatever the rationale for creating signage, it has to be visible for an older adult.” (Carman and Fox, 2008 p. 189). The sign must be sized to allow it to be visible. The **lettering, symbols, numbers and graphics** must be large enough to be seen by an older adult, as well as bold and simple in typeface and style. Colour contrast between background and type or graphics should be distinct, and the surface material of the sign should attempt to eliminate glare (Carman 2008 p. 189). It is important that symbols such as

“how to make better use of [the] environment”

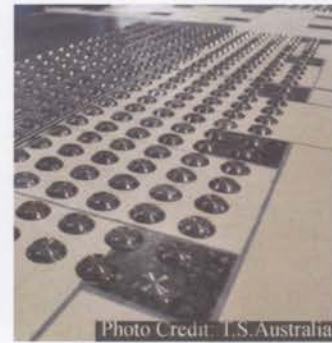


Figure 4: Clear text and contrasting colours, combined with commonly used pictographs and directional cues make for a clear sign.

Figure 5:
WalkNYC
"you are here"
map



Figure 6: Tactile
indicators to
warn against
the upcoming
escalator.



"Wayfinding design should be focused towards first-time visitors"

pictographics and cartographics remain basic and free of unnecessary detail (figure 4); only very basic symbols can be displayed without word clarification (Arthur 1992 p. 146). Language used must be **clear, simple and consistent** (Arthur and Passini, 1992 p. 153). Street maps are an excellent tool for both walking and public transportation. In New York, WalkNYC uses street maps that are orientated facing forward to show the street network as it appears to the user (Government of New York City, 2014) (figure 5).

Audible: Audible information is important to help guide all pedestrians - those who are visually impaired as well as sighted persons. Audible signals "help reinforce other cues in the environment and communicate to the wayfinder the appropriate time to cross the street safely" (Carreon 2000 p. 107). Synthetic voices are suitable in such places as elevator cars, bus and light-rail transit, and metro. In addition, information kiosks and voice-activated signs can enable wayfinding (Carman and Fox, 2008 p. 189).



Figure 7: Acrylic sign with stainless
steel Braille.

Tactile: "Raised lettering and Braille typefacing [on signs] will help those individuals with diminished eyesight" (Carman and Fox, 2008 p. 189). Markings may also be made tactile to **draw attention to potential hazards or define pathways**, such as with curbs or the rubberized markings that separate the edge of the subway platform (Arthur and Passini, 1992 p. 218). Tactile Systems Australia is a company located in Brisbane and the Gold Coast that installs tactile ground surface indicators to aid wayfinding for those individuals with visual impairments. In various locations including the Brisbane International Airport, they have installed stainless steel or polyurethane tracks to indicate such things as escalators and approaching roadsides (figure 6), and signs with stainless steel Braille (figure 7).

Final Thoughts

Wayfinding design should be focused towards first-time visitors as repeat visitors can draw upon past experiences for navigation (Lynch, 1960). Though every person will interpret an environment differently, **the most important thing to consider with age-friendly wayfinding is consistency**. It is important to keep design simple and clear in order to make surroundings navigable for everyone.

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Image Sources:

Cover Photo: Christina Chaey, Fast Co Create (2014)

Figure 1: www1.qoloq.com/confusing-road-signs.html (n.d.)

Figure 2: Aqso" (n.d.)

Figure 3: Tarleton State University (n.d.)

Figure 4: Codfish Design (2014)

Figure 5: WalkNYC (2014)

Figure 6: Tactile Systems Australia (2014)

Figure 7: Tactile Systems Australi (2014)