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Wayfinding Systems: Critical Components and Effective Design

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“Wayfinding” you ask?

A wayfinding system is essentially a succession of clues which assist how people navigate their way from one place to another, also defined as spatial problem solving. There are numerous aspects of a wayfinding system that includes **visual, audible and tactile elements**. For the most part, real estate professionals are most familiar with static signage programs versus a wayfinding system, which goes beyond just signage and incorporates other aspects such as architecture, lighting, landscaping, and landmarks – which all work together in unison.

When thinking about how we direct our tenants and visitors in our real estate, it is helpful to understand the broader tool kit that can be implemented. A wayfinding system can be used to help navigate through office buildings, shopping centres, apartment buildings and retirement homes to create a welcoming and stress free environment. Read on... to learn about the evolution of wayfinding as well as its benefits, critical components, and emerging technologies.

The Evolution of the Wayfinding System

To understand wayfinding we must understand how it evolved into what it is today. Wayfinding consultants recognize Paul Arthur for his extensive career in developing the discipline of communications design. His career began with major airport projects in 1961, which he believes to be the beginning of environmental graphics, and subsequently grew with projects such as Montreal’s Expo 67, university campuses, hospitals, the U.S. Postal Service, and Parks Canada. At the beginning of his career he admits that there was no proper, mature approach to research, and there was limited if any acknowledgement of cognitive and perceptual impairments. **The wayfinding system evolved from a limited view of functionality focused on signage to more “performance-based” criteria rooted in how people perceive and process information.**¹

Human Wayfinding: How People Find Their Way

Wayfinding is an innate skill that begins to be developed as a small child. In all situations where this skill is being demonstrated common-sense knowledge of geographic space is being utilized.

Industry professionals involved in wayfinding by and large are of the same opinion that **people have a cognitive map in their heads – a mental representation that corresponds to people’s perceptions of the real world.**²

Components of a wayfinding system should be designed to accommodate varying cognitive skills:

- Some people are cognitively focused, relying on maps and written directions.
- Others respond to verbal communication, where one person explains directions to another.
- Others respond to visual cues such as landmarks, colours, and noticeable features.
- Some gain understanding primarily through personal interaction with people.



¹ Large, M. (2001, Spring). Communication Among All People Everywhere. *Massachusetts Institute of Technology*, 7(2), 81-90.

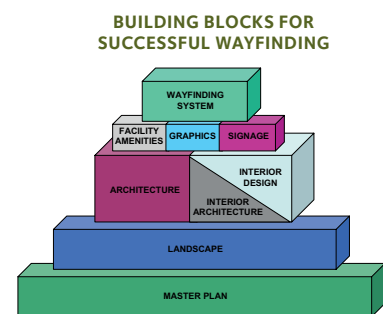
² Raubal, M., & Egenhofer, M.J. (1998). Comparing the Complexity of Wayfinding Tasks in Built Environments. *Environment & Planning B*, 25(6), 895-913.

Critical Components of Wayfinding

A high-quality wayfinding system focuses on the decision making process, the knowledge of the wayfinder, comprehensible clues and unambiguous identification of pathways and destinations.

As illustrated in Figure 1, there are many components in a wayfinding system that depend on one another to create synergy and a solid, efficient foundation. At the base is the “Master Plan,” which is the strategy that creates the foundation for the wayfinding system — **a strategy and plan for maintenance is as critical to success as the design**. During the initial planning stages it is important to look into the future and what adaptations may arise with the building. With each expansion, new entrance, new elevator and new circulation pathway the original pathways get interrupted and it can become very difficult to implement a successful wayfinding system, unless a master plan originally anticipated a facility’s growth and expansion. The other elements which are incorporated in the strategy and work together to create synergy and an all encompassing wayfinding system are the following:

- Landscape – trees, plantings, flagpoles, water features, and outdoor furnishings that are strategically placed.
- Interior architecture – entrances that are easy to identify, clear pathways, easy-to-see visitor elevators, and landmarks that create visual cues at decision points.
- Interior design – colour palettes, materials, and lighting support.
- Signage – builds upon good interior design.
- Graphics – symbols, clear font and size, and facility’s logo on signs etc. to show consistency throughout the facility.
- Facility amenities – includes all services that make wayfinding easier (ie. staff members to provide directions).³



Source: Adapted from the Center for Health Design

Figure 1

Benefits of an Effective Wayfinding System

There are numerous benefits of an effective wayfinding system. Fundamentally, it should assist users to experience an environment in a positive way by creating a welcoming environment. It is essential that a wayfinding system is proactive with design elements to limit the questions a wayfinder would have if clues were not properly implemented. However, it is important that a system does not incorporate too much information as it creates clutter and is just as ineffective as having too little information available.

According to Paul Arthur and co-author Romedi Passini in their book entitled *Wayfinding: People, Signs, and Architecture*, good quality wayfinding promotes the following elements:

- Reduction of stress and frustration for the visitor
- Functionality efficiency
- Visitor accessibility
- Safety
- Visitor empowerment, improving cognitive skills in spatial understanding
- Improved bottom line

Good Wayfinding Promotes Health

As Carpman and Grant (2001) found when analyzing the relationship between disorientation and design, “It is important to consider that wayfinding problems have their own particular cost in the healthcare environment. Stress caused by disorientation may result in feelings of helplessness, raised blood pressure, headaches, increased physical exertion, and fatigue. In addition, patients may be affected by the wayfinding troubles of visitors who, because they became lost, may have less time to spend with patients.”

Source: Huelat, Barbara; The Center for Health Design

³ Huelat, B. (2007, October). Wayfinding: Design for Understanding. *The Center for Health Design*.



According to Karo, a branding and communication design firm, where retail landlords and tenants are concerned, an effective wayfinding system that enhances visibility and customer traffic tends to merit higher rents.

"A well-designed visual communication system may be beautiful. However it's not art; it must answer a specific need."
Source: Aust, Steve; Signweb.com

GWLRA Wayfinding Project

Western Canadian Place, Calgary, AB

At the end of 2007, Western Canadian Place installed a new touchscreen directory where visitors or tenants can pull up the main lobby, plus-15 level and see the map and get directions. The full colour and moving graphics draws attention so information is easily visible.

David G. Middleton, Senior Property Manager of Western Canadian Place provides his thoughts on the new touchscreen technology:

What are the reactions of tenants and visitors? *Extremely positive. We have received enquiries from neighbouring competing buildings in regard to the vendor and approximate cost of the directories and they are considering for installation at their buildings. Visitors have been very receptive as the directories don't just tell them the suite number and floor but it also describes exactly how to get to their desired location.*

What are some of the most appealing features? *One of the most used features, even by building tenants, is the conference room listings feature. This feature lists all conference room bookings, rooms and times. Additionally, building events scroll across the top of the display to give added prominence to pre-described messages.*

Is it something you would recommend for other GWLRA buildings? *Absolutely, the interactive nature of the kiosks is welcomed by the user and the system is relatively inexpensive compared to static directories.*



The Airport Model: Progressive Disclosure
Travelers are often unfamiliar with the airport layout with their disorientation heightened due to the fact they are often tired and stressed. Successful wayfinding in airports consists of a process called progressive disclosure — provides only enough information to get to the next point and then subsequent information is relayed.
Source: Huelat, Barbara; the Center for Health Design

Emerging Technologies



According to Hub Magazine, a touchscreen wayfinding system, in combination with a loyalty card program will provide a customer with a shopping experience that will give them a reason to come back. Stuart Armstrong of EnQii Digital View Media provides his take on the cost benefit analysis of retailers incorporating touchscreens into their wayfinding strategy:

*"The cost of implementing and maintaining a system — including screens, player hardware, connectivity, content development and management can typically range from about a few hundred to \$700 per-store, per-month, depending on the number of stores. With all-in cost at that level, achieving significant positive ROIs quickly is very doable."*⁴

⁴ Armstrong, S. (2007, Nov/Dec). Wayfinding Loyalty. *The Hub Magazine*.

As well, the digital display industry is evolving rapidly. In particular, developments in technology have increased the reliability and effectiveness of outdoor digital displays, due to the advances with LCD displays, optical bonding and thermal management. Where indoor digital displays are concerned, a digital signage study conducted by InfoTrends (a market research and strategic consulting firm for the digital imaging and document solutions industry) shows that this medium of communication and its applications have the potential to add value. The study, which polled consumers, found that digital signage displays have effectiveness on brand awareness, can increase overall sales volume and generate growth in repeat buyers and in-store traffic.

Due to the demonstrated effectiveness of digital displays, the market for digital display products is growing rapidly. In 2007 there was a global market for digital signage displays of \$1.5 billion and it is projected to exceed \$3.5 billion by 2009.⁵

The Five Secrets to Creating a Sign that Gets Noticed

1. Avoid Excessive Wordiness

Message has to be concise and to the point.

2. Ensure Your Sign Can Be Read at a Distance

Some designers follow the "Standard Letter Visibility Chart," commonly used by Canadian Provincial & U.S. State Roads authorities.

3. Frame Your Message

Frame your sign so that its design and messaging are unified and focused — sometimes not necessary if other elements are strong enough on their own.

4. Use the Right Colours

Recommend a minimum of two and a maximum of four solid colours.

When a corporate logo is used, you should always complement its design by incorporating one of its colours into the text or border to accent elements of the sign.

5. Choose the Right Typestyle

As a general rule, choose only one "decorative" typestyle for your design.

(See www.MillerMcConnell.com for more information)

Resources

Below is a sample of Canadian wayfinding consultants (*GWLRA in no way endorses these firms):

Karo

Vancouver and Calgary
www.karo.com

Web Wizards Inc.

Winnipeg, Manitoba
www.webwizards.ca

Wm.Whiteley Limited

Simcoe, Ontario
www.wmwhitely.com

Miller McConnell Signs

Ottawa, Ontario
www.millermcconnellsigns.biz

Eye Catch Signs International

Halifax, Nova Scotia
www.eyecatchsigns.com

Society of Environmental Graphic Designers (SEGD)

- Founded in 1974 and originally named the Society of Environmental Graphic Designers, SEGD has grown into an international educational foundation with over 1200 members.
- Membership is open to anyone working in Environmental Graphic Design (EDG) including designers, students, educators, in-house designers, artisans, fabricators and clients.
- Some common examples of work by EGD practitioners include wayfinding systems, architectural graphics, signage, exhibit design, identity graphics, civic design, pictogram design, retail and store design, mapping and themed environments.
- For the latest on wayfinding projects and publications, go to <http://www.segd.org>

⁵ Cohen, M., &Williams, G. (2008, October). Emerging Technologies in the Outdoor Digital Signage Market. *Advanced Imaging Magazine*.

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