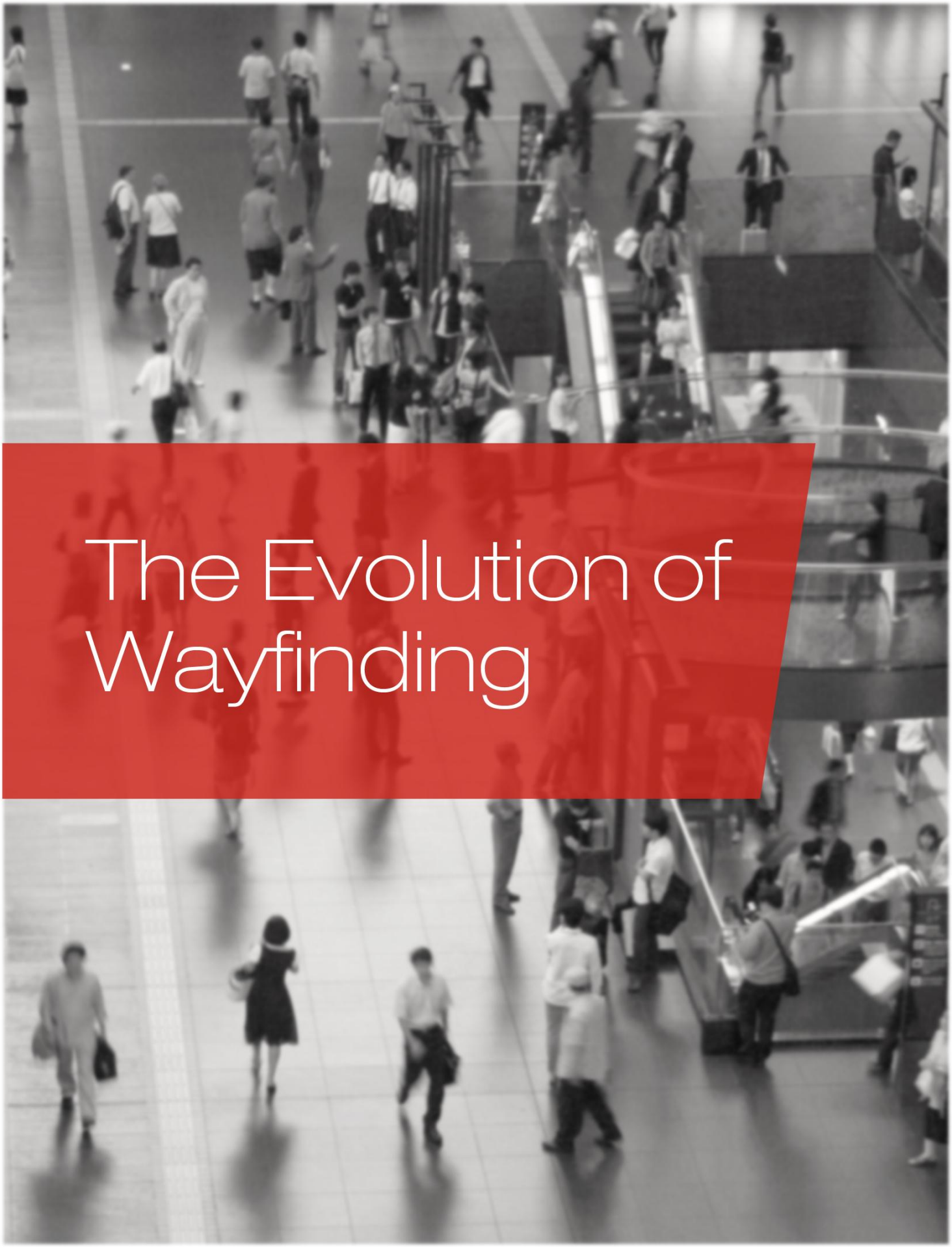

The Evolution of Wayfinding

eBook

You may not realize it but wayfinding is fast becoming an integral part of our everyday lives. Increasingly, it answers a critical human need – Where are we? And, how do we get where we are we going?

In order to get their bearings, people oftentimes experience feelings of confusion and anxiety if they're facing an unknown space. Experiential wayfinding is the navigational solution that provides essential information to a visitor, at the right time, in a way that lets them fill-in the map in their head, easing any feeling of confusion and stress.

Although wayfinding systems are more visible in the commercial industries, they are an invaluable asset to other institutions as well, such as healthcare facilities or corporate campuses. The experience of every visitor in one of these institutions is oftentimes already under the pressure of solving a problem. A well-designed wayfinding system will help them save time and energy trying to find what they're looking for.

In this eBook, we'll give you a general introduction into what wayfinding is and how it became a part of our daily lives. With applications in different fields such as design, architecture, retail and healthcare, wayfinding is improving our lives, sometimes without us knowing it. We'll also give you a quick glimpse into the indoor location technologies currently used by experiential wayfinding systems.

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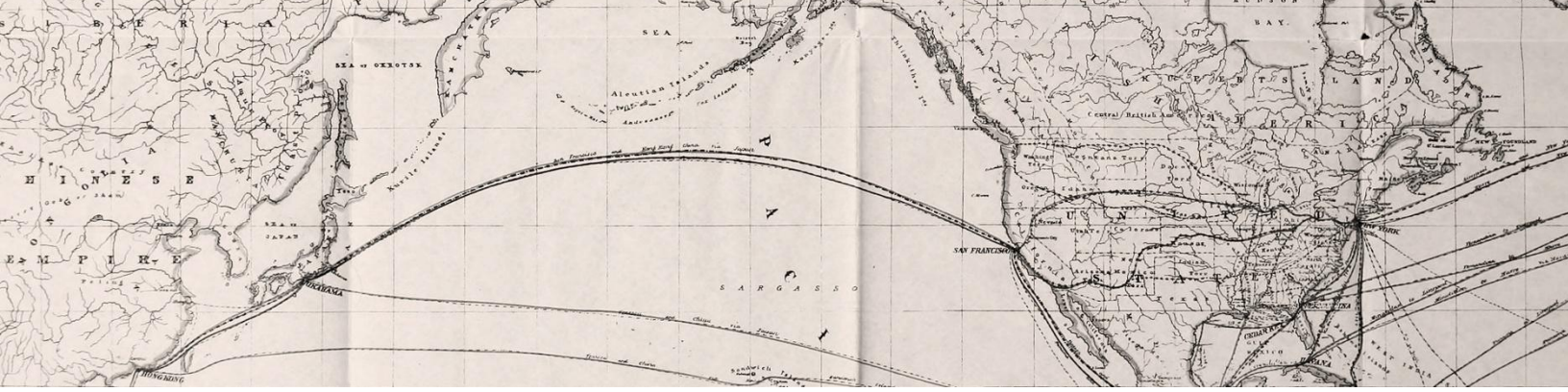
Chapter 1

The history of finding our way



The history of navigation

Where are we? Where are we going?

These are two fundamental questions that humanity has never stopped asking. From the beginning of human history we came up with thousands of answers and tools to solve this enigma. But the questions never left us.

In prehistoric times we needed to know how to find our way back home. We needed to know how to find food and bring it back to our cave so we used the position of the Sun to orientate ourselves, we observed the landscape and its main landmarks, or we created our own recognizable landmarks, such as piles of stones or tree carvings.

Then we became builders and we needed to find the best space for our emerging communities. Early humans migrated due to many factors such as changing climate and landscape or inadequate food supply, so it was important that we know our environment and use it to our advantage. We build our settlements near water sources and woodlands, on hill sides and close to existing roads, to maximize the position of our settlement - religious, industrial etc.

From carving signs on trees, to building landmarks by pilling rocks and relying on the position on the stars, we've always been searching for the next navigational technology.

We had an age of journeys ahead of us to discover and invent the civilized world as we now know it. Sea navigation was our main discovery method and it dated back to the time of the Vikings and the Polynesians.

We trusted the stars to tell us where we were and we used maps to set the course towards our destination. But even maps were not as reliable as we would have wanted – latitudes would be calculated by observing the Sun, Moon and the stars, while longitude was calculated by working out time differences in different parts of the world. We used knowledge of the currents, winds and sea depths to orientate our journeys, but it wasn't a precise and reliable way of navigating.

The magnetic compass was the first technological breakthrough to help us find our way, by always pointing its needle towards north. Over the 18th and 19th centuries, sextants and chronometers were used to assess longitude and latitude.

Modern navigation

At the beginning of the 20th century, we started using radio waves to help us navigate airplanes and ships, through the use of directional antenna.

Due to radio's ability to travel very long distances, the RDF or radio direction finder was used in navigational systems for ships and aircrafts. At the time of its discovery, this seemed like the closest humanity has ever gotten to being able to find its way. But, as we now know, it wasn’t.

We went on to use global navigation satellite systems that allow small electronic receivers to determine our location using time signals transmitted along a line of sight, by radio waves from satellites. The GPS project was developed in 1973 to overcome the limitations of previous navigation systems. Designed by the US military, GPS was made available for civilian use by President Ronald Reagan, after the crash of a civilian airplane in 1983. Currently, GPS is owned and operated by the United States Government as a national resource and is freely accessible to anyone with a GPS receiver.

Today, more than two dozen GPS satellites are in medium Earth orbit, transmitting signals that allow GPS receivers to determine the receiver's location, speed and direction. While GPS has made our lives considerably easier with applications in vehicle driving, cellular telephony, cartography, clock synchronization, military, robotics and recreation, we’re constantly inventing the next wayfinding technology.

The next thing right now? Indoor navigation technologies that can change the way we live.

Because GPS doesn’t work indoors, new wayfinding systems use Wi-Fi and Bluetooth technology, that doesn’t require a satellite connection.

Wi-Fi is a local area wireless technology that allows an electronic device to exchange data or connect to the internet using radio waves, whereas Bluetooth is a wireless technology standard for exchanging data over short distances, using short-wavelength UHF radio waves from fixed and mobile devices.

Chapter 2

How our brains understand wayfinding

We're wired to use our knowledge and previous experiences to find our way in an environment. We see our surroundings, process the information, decide where we want to go and try to find our way. But our brain may remember and analyze distances and locations differently than they appear in reality. Rooms seem so much bigger when we're kids, yet when we return as adults to the same rooms, they are considerably smaller, or at least that's what our brain registers.

Wayfinding is a natural skill that we learn as small children and then develop throughout our lives, relying on common-sense knowledge of geographical space.

When we enter a space, we make a cognitive map, based on the information our brain processes and remembers. Cognitive maps serve the construction and accumulation of spatial knowledge, allowing the "mind's eye" to visualize images and recall them at a later time.

"Modern navigation has a singular purpose: to get from here to there.

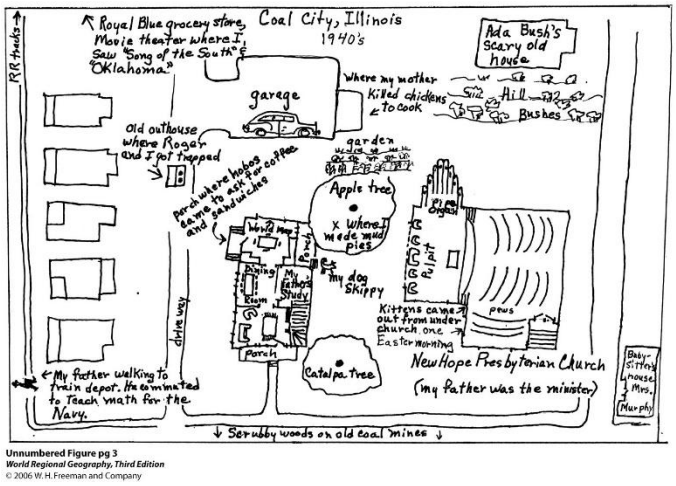
Wayfinding is about movement through space and time, and that movement leaves no relationship unchanged."

Ira Zunin

We use cognitive maps to perform a multitude of tasks such as deciphering verbal route instructions, rendering scene descriptions and of course, navigating. Our brain uses cognitive maps by retrieving information from the surrounding environment and then adding different corrections when it detects differences between the map and the real world.

When we create a cognitive map, we're concerned with the most important information, replacing the unknown with default reasoning. An example of default reasoning is when we have to change flights in an unfamiliar airport and we assume that once we get there we'll be provided with a more detailed orientation method.

We also use geographical maps for orientation, as two-dimensional depictions of the relationships between the elements in that space. A wayfinding scheme combines the elements of a cognitive map, with those of a geographical one.



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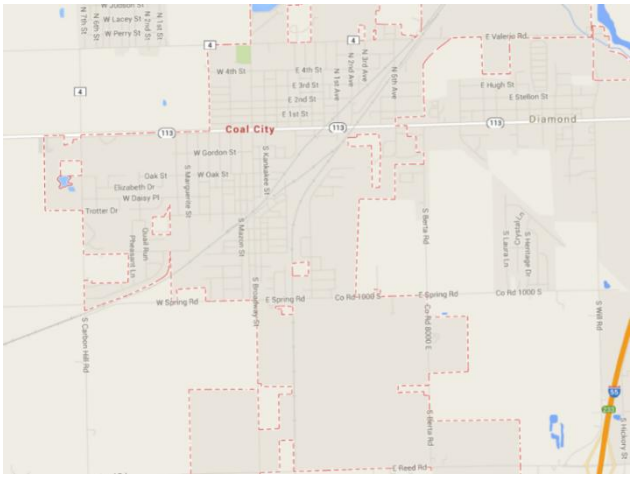
Cognitive map



Geographical map

The role of wayfinding is to inform people of their surroundings, by providing information at strategic points, in order to guide them in the right direction.

When you go on a trip or visit a new city, you simply set your car's navigation system or you browse an online map to the nearest coffee shop, without giving it too much thought. Wayfinding technology is part of consumer goods that have become indispensable to us.

Chapter 3

Principles of wayfinding

Experiential wayfinding relies on digital technology to translate the complexity of an environment into a personalized experience for visitors.

Without any form of wayfinding we couldn't make sense of our surroundings. We would be unable to move. To progress.

We constantly rely on signals in our environment to help us orientate through space and understand where we go next. Almost everything we experience in a day requires us to get from point A to point B. And most times that's not all we have to do. We have to perform different tasks along the way and sometimes we have other people relying on us to properly navigate through the environment we're in and perform those tasks.

When we're lost or struggling to reach our intended destination frustration kicks in, taking up precious energy that could have otherwise been saved or better employed.

Wayfinding in design and architecture

Designing and building complex structures is intrinsically linked to wayfinding. Actually, the term was first used by architect Kevin Lynch in his 1960 book, *The Image of the City*.

Architects, designers and sign-makers work together to address a project's total environmental communication. As the primary generator of environmental communication, architecture outlines spatial organization, destination zones and information sequencing.

When we're navigating a space, we usually follow a scheme designed to help us orientate with the help of landmarks and signage. An effective wayfinding system is based on human behavior. Its goal is to create a comprehensive, clear and consistent visual communication system with concise messaging, by showing relevant information.

By following a good wayfinding scheme, architectural design can facilitate user access, increase satisfaction and reduces confusion. The design of wayfinding systems has to identify and mark spaces, group, link and organize them and communicate that information to the user.

In his paper on *"Designing Navigable Information Spaces"*, Mark A. Foltz identifies 8 key principles for effective wayfinding:

- Create an identity at each location, different from all others.
- Use landmarks to provide orientation cues and memorable locations.
- Create well-structured paths.
- Create regions of differing visual character.
- Don't give the user too many choices in navigation.
- Use survey views (give navigators a vista or map).
- Provide signs at decision points to help wayfinding decisions.
- Use sight lines to show what's ahead.

There are four key types of signs used in architectural wayfinding: information signs, direction signs, identification signs and warning signs. The typeface used in designing them has to ensure readability and clarity. Typography, color contrast and material choice are key details that can determine their effectiveness.

"The ability to find one's way into, though, and out of a building is clearly a prerequisite for satisfaction of higher goals."

Designer Jerry Weisman

In his article "Wayfinding is not Signage," John Muhlhausen pinpoints the following architectural aids to wayfinding:

- Clearly identify arrival points.
- Provide convenient parking and accessible walkways located adjacent to each public entry.
- Locate information desks within each public entry visible from the front door.
- Place elevator lobbies so they can be seen upon entering the building.
- Use consistent lighting, floor coverings and architectural finishes in primary public corridor systems.
- Situate memorable landmarks along corridors and at key decision points.
- Design public waiting areas that are visually open to corridors.
- Distinguish public from non-public corridors by using varied finishes, colors and lighting.
- Harmonize floor numbers between connecting buildings.

Chapter 4

How do advances in wayfinding technologies compliment traditional wayfinding principles?

Over the past decade we've seen advances in wayfinding technologies that are transforming the way we move through the space around us. These advances compliment traditional wayfinding principles, to transform a customer's experience of place.

Instead of a sign to indicate an arrival point or direction to follow, mobile devices receive signals from beacons in the space around them. The convergence of location aware technologies means mobile applications are location and proximity aware and, based on this information, deliver a contextual message.

Even elevators and escalators can tell us when they're out of service. Healthcare workers can be informed when they are entering a hazardous area and discounts on that pair of shoes you've been looking at are delivered to your mobile.

Location Aware Technologies

Location Aware Technologies is a general term used for technologies that are able to determine geographical location. A familiar example would be GPS, installed in most cars nowadays, it uses satellite signals to triangulate your position. The problem is GPS doesn't work indoors and isn't very accurate within 20 meters.

To overcome this, Wi-Fi positioning has become popular as an indoor navigation technology. While more accurate indoors than GPS and after some adjustments like round trip time (RTT) replacing received signal strength indication (RSSI) and improvements to the network intelligence helping to improve accuracy, Wi-Fi is still not an ideal solution in isolation.

More recently Bluetooth LE technology has been introduced. Bluetooth LE provides important proximity related information and compliments Wi-Fi positioning technology. A low energy technology that runs on beacons, mobile devices and other objects, it is more cost effective than Wi-Fi.

And the force behind all these location-sensing and location aware apps and objects?

Something we call the Internet of Things or "IoT". A network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment. Gartner estimates that by 2020 there will be an installation base of 26 billion "things", all aware of their location and able to report on it.

In the absence of “IoT”, our mobile devices are able to use DR technology. DR stands for dead reckoning, a process that estimates a person’s known current position based on the last determined position and increments that position based on known or estimated speeds over elapsed time.

Converging Technologies

As wayfinding technologies converge, integrated through a single software platform, innovators can create remarkable customer experiences.

The convergence of this variety of interactive technologies and the Internet of Things, the network of autonomous sensors and devices that connect machines, spaces and instrumentation to vast computing and analytical resources gives us experiential wayfinding.

What this means is wayfinding is no longer a passive experience of logographs and signs. Wayfinding becomes a tool to create a user experience, and not simply guide a journey.

The technologies behind experiential wayfinding

Experiential wayfinding is not built on specific technologies, but families of technologies—location-based services (LBS), mobility, predictive analytics, and the Internet of things.

These are the most important technologies that can be used in an integrated wayfinding system:

- GNSS (Global Navigation Satellite System), the satellites orbiting around our planet that provide absolute location data but has poor indoor coverage.
- Cellular networks, which provides relative location data to the last known GNSS coordinates.
- Wi-Fi networks that are much the same as cellular networks and begin solving the challenges around indoor navigation.
- Inertia Mems Sensor - The same as cellular
- Bluetooth - Advances in Bluetooth and Bluetooth low energy (LE) beacons are providing proximity data to a known POI
- Software solutions provided by companies such as Jibestream that bring point solutions together in a single application.
- Google Maps and Places integration for outdoor to indoor wayfinding
- Mobile applications for hospitals, shopping centers and campuses.

Chapter 5

Experiential wayfinding as an industry edge

Location and proximity are key requirements for context-aware applications. As indoor positioning technologies and become more pervasive, the full potential of context aware applications will become apparent.

In the corporate environment, indoor positioning systems could be linked to security and access control. Combined with passwords and badges, a user's location could add another level of security in the authentication chain.

In a retail environment, messages may be "pushed" to end users based on their proximity to what is around them.

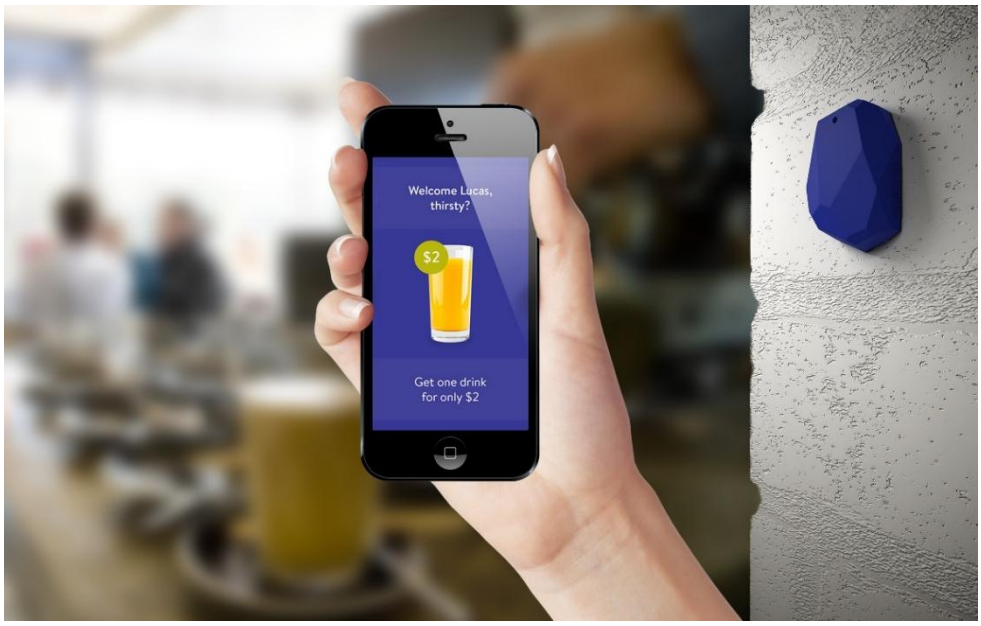
Experiential wayfinding in retail

Ecommerce is one of the most talked-about trends in the last few years. Worldwide ecommerce sales are expected to grow from $1.25 trillion in 2013 to $2.35 trillion in 2017. In the US, ecommerce is predicted to grow 67%, from $263.3 billion in 2013 to $440.4 billion in 2017. Meanwhile, US retail sales will only grow 18%.

More than three quarters of retail transactions take place at brick-and-mortar locations. As consumers go online to make purchases, retailers will need to provide a consistent omni-channel experience.

The Interactive Advertising Bureau found that 42% of consumers using a mobile device while in-store spend more than $1,000, while only 21% of shoppers without a phone spend as much.

To remain competitive, shopping malls have to deliver an experience that customers cannot find exclusively online. Even though they are in the retail industry, they should also learn to master the art of hospitality, which consumers expect.



What buyers want

Over the last 10 years, we've created technologies that have dramatically changed our shopping experience. But this is nothing compared to the possibilities we now have, by combining these technologies. GPS, RFID, DIGITAL VIDEO, Wireless transmission, the Cloud, Smartphones - they may not spell shopping but they have definitely revolutionized it.

Digital-savvy customers have gotten used to tailored landing pages, custom-made offers and recommendations. What's more, they want to have the same experience in an offline environment.

Our purchases have to be made on any device, through a clear and quick buying process and delivered as soon as possible. Technology has become a significant part of our lives. Consumers today are entering a store already informed on the products they want. They are already linking all your channels through their actions.

Accessibility is a must but there's something more that customers enjoy – connecting with your brand. An in-store experience is a unique opportunity for brands to engage and connect with customers. The fact that buyers are constantly online can be a great opportunity for you.

By leveraging existing behavioral trends and technology, brands are offering a coherent, continuous experience that builds loyalty and trust.

A great customer experience is an integrated experience

As businesses began to realize that one-size-fits-all marketing was no longer an option, they started implementing different tech solutions that could help them personalize experiences. This is how omni-channel marketing was born, bringing together all this amazing technology to achieve one single purpose: a seamless customer experience.

Omni-channel is a multichannel approach that integrates all shopping channels, at a back-end level, in order to provide the customer with a satisfactory unified experience, whether the customer is shopping online, from a desktop or mobile device, by telephone or in the physical store.

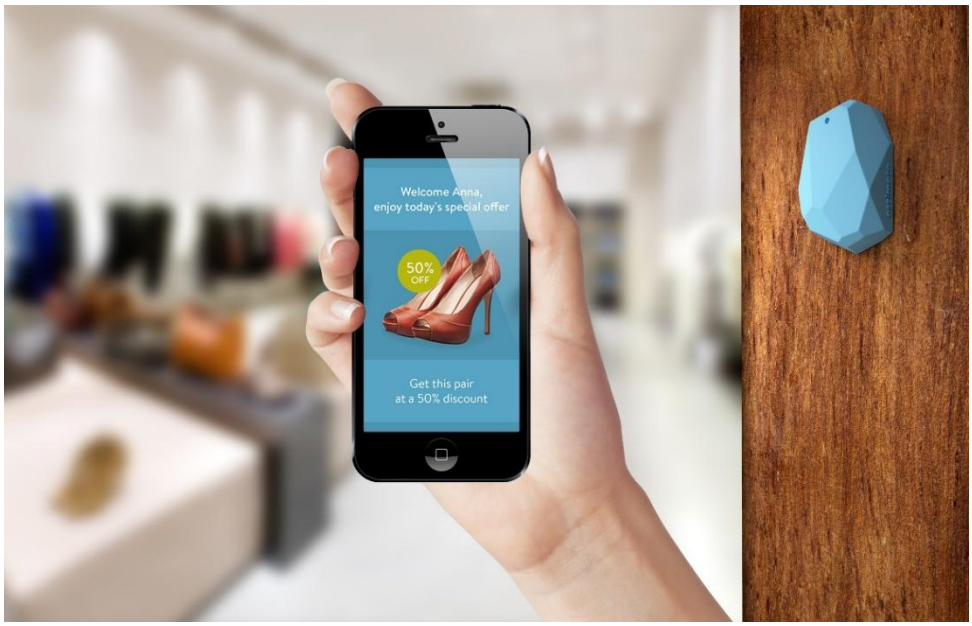
Through experiential wayfinding, retailers can now integrate the offline shopping experience with online interactions, having a full view of the customer's journey from intent to action. If you know what they're searching for, their purchasing history and their online intent, you can bring them in-store for a personalized customer experience. Not only will they appreciate being treated like a VIP, but they will associate these positive emotions with your brand and that means they'll come back.

Imagine a customer walking past your store - after seeing an ad last week and taking a look at this season's trends, their phone receives an offer as they pass by, with a special offer on the item they've previously browsed on your website.

That's just one example of how wayfinding technology can give you the information you need to connect with customers, at different stages of decision making.

In the old days, retailers would try their best to keep up with industry trends, but mostly they operated by instinct, putting in orders in 6-12 months before the start of the season. Today, through an integrated omni-channel strategy, you can get real-time data by connecting all the points of the buyer's journey.

In the end, it's all about understanding your customers – what they expect, how they relate to your business and where you can interact with them. By connecting with them at different point of the buyer journey and tailoring your offers, you can deliver an outstanding customer experience and become highly efficient.



Experiential wayfinding in healthcare

From a first glance, it's hard to notice similarities between consumer industries such as retail and the healthcare industry. But perhaps the biggest similarity has started to become more and more visible – the customer-centric transformation. This shift in mentality that was once perceived to be a luxury for hospitals struggling to find new funding and increase efficiency.

"We see growing interest in visit preplanning as part of wayfinding. A hospital visit begins at home, so a truly comprehensive wayfinding solution needs to include directions from the visitor's residence to the hospital as well as directions within the hospital."

Mike Drozda, chief operating officer of LogicJunction, Cleveland

Today, the healthcare industry is realizing that patients have options in their choice of healthcare provider and they are treating this industry just like any other, fully informed and with high expectations of service delivery.

A patient's experience can be roughly defined as the sum of all their interactions with the healthcare facility. From the

patient's point of view, it's hard to separate experience from safety and quality. All three elements make-up the sum of all interactions.

From the healthcare provider's standpoint, they are clearly separated notions, each of them demanding its own set of resources to manage. Now, with the growing number of patients and the recent spending cutbacks, the need for efficiency in those particular management processes has increased exponentially.

"Good wayfinding design promotes healing because being able to understand their environment provides visitors with a sense of control and empowerment, key factors in reducing stress, anxiety, and fear—feelings that undermine the body's ability to heal."

Passini and Arthur

Delivering an excellent patient experience through efficient processes

By capturing a patient's intent to navigate to the clinic and using information from various intelligent systems, an integrated wayfinding system can shape their journey, making it easier to fulfil their goal, while, at the same time, saving the clinic significant time. In other words:

- Reduced waiting time;
- Increased patient communication;
- Increased staff communication;
- Better staff time management;
- Quality on the overall patient experience;
- Lower costs in patient reception;
- An increase patient satisfaction score;
- Improved communication and accessibility for patients with disabilities;
- Positive brand positioning to attract patients, as well as investors.

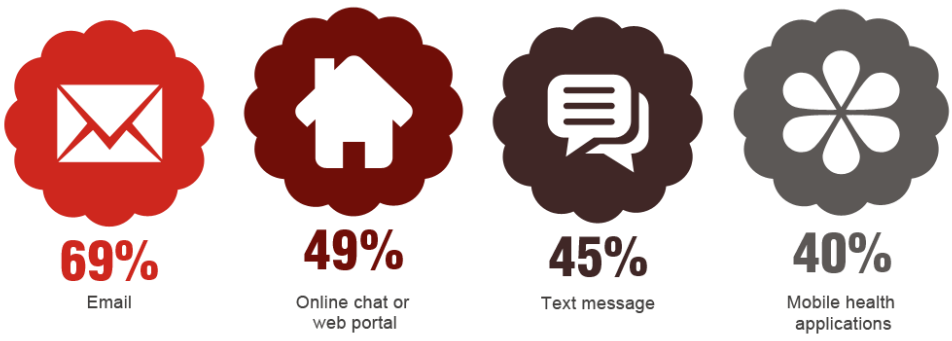
Making the most out of available technology

Although many healthcare units have tapped into the power of data collection through social, mobile, cloud and analytics technologies, they are not maximizing the power of that information because they lack the means to integrate it with their major information systems.

This vital data can be used to its fullest potential by integrating collected patient data with clinician workflows and electronic health records, in order to provide a great patient experience. An efficient wayfinding system can correlate data from mobile, social and cloud technologies and integrate it with your information system in order to create a personalized, seamless patient journey.

According to a recent PwC report, only 27% of physicians encourage patients to use mobile health applications, even though 59% of physicians and insurers believe that the widespread adoption of mobile health is inevitable in the near future.

When asked "How willing would you be to comunicate with your doctor, nurse or caregiver in the following way?" respondents answered:



Source: HRI Consumer Survey, PwC 2013 ©

The same report shows that consumers may be increasingly willing to pay for social, mobile, analytics, and cloud technologies to help manage their health, as they assume more financial risk for their healthcare (e.g., via high-deductible plans).

PwC outlined six new principles likely to underpin the success of using mobile technologies in healthcare:

1. **Interoperability** – the ability to be compatible with sensors and other mobile or non-mobile devices to share vast amounts of data — such as sharing patient records and healthcare plans.

2. **Integration** – being a natural part of existing provider and patient workflows, supporting new behaviors.

3. **Intelligence** – problem-solving capability to give real-time, qualitative answers based on data.

4. **Socialization** – being a trusted community for people to share information, offer support, coaching and recommendations.

5. **Outcomes** – being driven by healthcare objectives and return on investment with the focus on cost, access and quality.

6. **Engagement** – being open and responsive to patient participation. Including instant feedback from multiple sources so that behavior and performance can be fully realized and understood.

Many institutions have already seized this opportunity and have created wayfinding systems that help visitors have a positive experience. By using interactive maps, signage systems, artwork, beacons and landmarks, they were able to leverage architecture and design elements to direct visitors in a user-friendly way.

The results are significant – outstanding customer experiences, improved customer satisfaction scores, making customers feel respected and valued, optimizing staff productivity and improving the facility's reputation.

Experiential wayfinding in corporate campuses

Moving from the consumer-oriented industries of retail and healthcare to the corporate world, we focus on different challenges that today's business environments face. Human capital, operational excellence, innovation, customer relationships, corporate brand and sustainability are just a few of these challenges.

Maximizing talent potential

Human capital, in particular, is a recent challenge that has been brought on by the 21st-century workforce. A global workforce, highly connected, technology-savvy and eager to collaborate. Communication and collaboration are at the center of talent management strategies that tackle this challenge, through the latest available technology.

Companies invest in corporate campuses for one extensive goal: to organize their resources in the most efficient manner. Through these campuses, employees are able to connect to the company culture, communicate efficiently and deliver a better performance.

Today's wayfinding systems are designed to maximize cultural and workplace design factors, in order to provide employees with positive experiences, whether it's by ensuring a high level of security, providing free mobility or finding the smartest route to special-purpose areas (conferencing centers, data centers, fitness facilities and convenience stores for instance).

They facilitate:

- Better communication;
- Better time management;
- Increased performance;
- A highly collaborative culture;
- Loyalty towards the company;
- Increased retention rates;
- Efficient HR processes;
- An agile campus network;
- Increased security.

Bringing people together can result in less absenteeism and lower attrition rates, which in turn means better business performance. It's extremely beneficial for employees to have a strong sense of corporate culture and to feel connected, so that they develop a greater sense of loyalty and commitment to the company.

When transitioning from collegiate to corporate campuses, new hires are often “lost in translation.” Puzzled by the relevance and usage of their new physical space, they have a difficult time adjusting and learning. “Lost” employees translate into lower retention rates. For these new employees, an interactive wayfinding system could mean a much shorter induction period. Starting with their initial interview, they are guided through a series of digital messaging and signage elements that remove some of the pressure of meeting the company representatives for the first time.

For example, the first time that a prospective hire would come on campus, they would immediately be notified of where the nearest available parking slot is, invited to follow a certain route and guided along it with the essential information of where their appointment is. As they arrive, they are invited to the front desk while at the same time receiving an invite to get a coffee from the nearest available place, until their interview starts. The HR manager knows that the candidate has already arrived and can easily invite them in to start the meeting.

The system can be used to orientate and onboard new hires in the first weeks of work, reducing stress and confusion, while at the same time, saving HR the time and energy of repeating the same information.

Stimulating operational excellence through experiential wayfinding

Wayfinding can be useful in a variety of operations, especially involving data collection and communication – from user ID accessibility, to interactive campus mapping and emergency plans.

Employee directories can be available on different display solutions, providing interactive search and data connection options. Managing teams, events and meetings can be done from any part of the campus, and the information can later on be retrieved from another point in the facility.

There are endless possibilities to integrate your internal management systems with a wayfinding system that can provide employees, visitors and security teams with the right information at the right place. By turning your corporate campus into an interconnected network that’s designed to answer operational needs, as well as employee experience aspects, you can minimize costs and improve business performance.

Chapter 6

Indoor Location Technologies

At Jibestream, we aim to make updating maps an easy process.

Bluetooth standards for positioning will evolve in two stages. First, we can expect Bluetooth beacons to start broadcasting their absolute location - this means devices will be able to obtain a precise location from the beacon rather than having to access an external database. Second, a new Bluetooth standard, codenamed “Shanghai”, is due in 2015 that will provide very precise (sub-1 meter) location sensing technology.

Greater Sensor Fusion - relying on a point solution or individual sensor technology is flawed. These point solutions are seldom able to provide precise coverage of an entire venue such as a shopping mall, hospital or corporate campus. Fusion of multiple technologies can provide improved precision and coverage.

“Location-sensing and location aware apps and objects - like almost everything else in mobile and IoT domains - are evolving rapidly."

Gartner May (2014)

An explosion in Location-Aware Objects - Gartner predicts that by 2020, the installed base of the IoT will exceed 26 billion units. These “things” will be aware of their location and be able to broadcast this information. There will be an increase in the number of devices that can broadcast their location and open new opportunities for location-aware interactions.

Location in Employee-Facing Applications - Advances in location sensing technology will find their way into corporate campuses where they will provide information about employee location (hot-desking), entering hazardous work areas and scheduling processes.

Indoor location technologies provide numerous benefits to consumers and businesses alike. They enable key applications used in wayfinding systems such as navigation, mobile marketing, mobile payment, identity management and access control. Their full applicability is still being determined by pioneering industries.

Conclusion

When you're entering a space for the first time, you look around for an indication of where you are and you try to figure out where you need to go next, in order to reach your destination. Oftentimes, you may not even realize that a wayfinding system is in place, you just grasp the information offered to you by digital guiding systems, self-service systems or navigational signage and you immediately know where you're going.

Interactive wayfinding systems are designed to do just that – offer visitors a seamless experience, making every navigational step seem like a natural course of action. By offering key information at key moments in space, indoor location technologies provide an interactive wayfinding system that saves us time, energy and negative feelings such as frustration or confusion.

Be it in the retail industry, the healthcare industry or in a corporate campus, you can be connected to the information you need, through different layers of interaction. Interactive wayfinding systems strengthen the efficiency and widen the function of a space, improving relationships between visitors and the staff operating in that space.

These systems will soon be the standard in almost any physical space we enter. According to a new study by Grand View Research, Inc., the global digital signage market is expected to reach USD 20.03 billion by 2020, due to a growing demand from application areas such as retail and healthcare.

While retail accounted for over 40% of the market in 2013 and is expected to remain the largest application segment over the next six years, the healthcare segment has significant growth potential, since healthcare providers and hospitals have incorporated digital signage for numerous purposes such as sharing important registration information, conveying wellness tips for improving patients' health and guiding visitors through wayfinding functions.

At the present time, interactive wayfinding systems are still a unique selling point that both private and public institutions can leverage to offer the best visitor experience. As the future shapes up to embrace wayfinding systems as a standard, we'll be looking for the next innovative technology that offers a seamless customer experience.

Our goal, at Jibestream, is to help our clients create meaningful engagement points with those who interact in their space.

Who we are

Established in 2009, Jibestream is an award winning, founder managed software company. Our solutions provide real-time, data driven interactive applications for virtually any digital connection point.

Our team is made up of the industry's most talented innovators and wayfinding experts.

What we do

We have harnessed the power of Internet of Things (IoT) technology advances to create a dynamic platform that combines digital and physical realities of data, proximity and context.

Let's talk about your goals

Request a Consultation.

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