



The Modern Workplace: **Human-Centered Design**

DIGITAL SIGNAGE WHITE PAPER

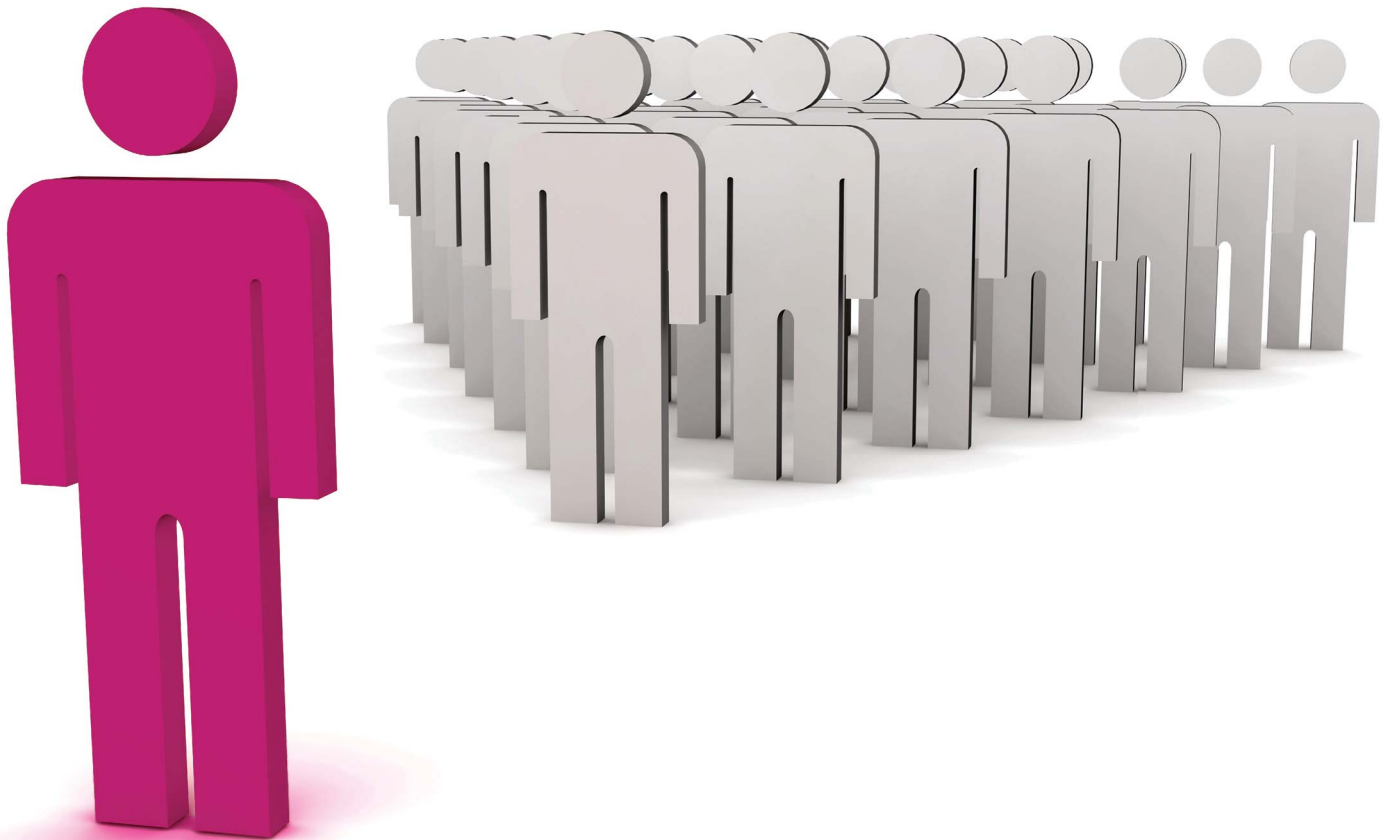


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Work is Not a Place. It's an Activity.

In the 21st century, technology, new ideas in corporate culture and a new generation are changing and challenging the very concept of what a workplace is and what it looks like. There have always been different sorts of spaces for work – offices are different from consulting rooms, studios and workshops are not the same as galleries or showrooms, on-site workers have different needs than off-site ones, and many spaces are multifunctional and can be reconfigured depending on what is needed at any given moment.

Labor is shifting from repetitive tasks to more varied and dynamic work. Employee engagement is now understood as a key factor in motivating employees to be more productive and increasing staff retention. Projects are increasingly being completed by small teams who share ideas and tasks, and both internal and external communications have been transformed by the advent of social networking.

There is no “right answer”, no “one size fits all” of how to configure a modern workplace. As with so much in the modern age, it all depends on various factors – what your corporate culture is, who your employees are, what kind of physical space you have and how you use it, and what technology is best suited to increasing productivity and employee satisfaction.

Corporate Culture

This is a somewhat vague concept – it's an intangible feeling that's a combination of your company's attitudes, beliefs and habits. You may have a strong culture where your employees understand the overall goals of your business, feel a part of it and are empowered to achieve those goals. Or you may have a weak culture where the main motivation is to complete tasks and collect a paycheck, without any connection to greater ideals.

Companies are made up of people, and people come with their own backgrounds, histories and expectations, and need to feel like they are part of something larger than themselves. This is why a strong corporate culture is preferable.

There are many ways to look at organizational culture types. Here are a few:

- **Academy** – Highly-skilled employees are key, and training and development are important to advancing within the organization. Employees are motivated by being valued for their knowledge and abilities, and having the chance to improve them.
- **Normative** – There are rather strict rules and guidelines that must be followed, and employees pretty much stick to what is expected of them. Employees are motivated through understanding their role in the overall plan, and enticed with carrot and stick incentives.
- **Power** – Similar to a normative culture, the power in the organization is in the hands of only a few, and the goal for advancement is to become one of those few who hold the reins.
- **Role** – Each employee and department have a defined set of responsibilities. Hard work and performance reviews are the basis for employee recognition and motivation. Sometimes called Club Culture.



- **Task** – Solving problems and achieving targets are what constitute success in this culture. Employees often work in small teams, leveraging and pooling their abilities. They are motivated by being able to work creatively and collaboratively.
- **Fortress** – The organization is everything, and employees that are productive continue to be employed, while those that fall short of expectations are terminated. Good job performance reviews, as well as advancement and pay raises are what motivate employees.
- **Pragmatic** – An almost totally customer-focused type of organization, where the rules and guidelines change depending on what a particular customer needs. Employees are valued for being flexible and adaptive, and motivated by customer satisfaction feedback.
- **Team** – The individuals that make up the company take priority over the organization as a whole. If the workers are happy, they will do well in their jobs. Extra perks and communal events help increase employee satisfaction. Sometimes called Person Culture.
- **Consistency** – Things are done a certain way in the company, and employees are expected to stick to the script without deviation. Employees that can be shaped to fit the expected role do well in this culture, and the main motivation is performance reviews.
- **Process** – Employees in a company with this culture are self-starters and expected to manage projects and processes already in place in a holistic way that maximizes output. Performance reviews are not very important, and they focus on general ideas and patterns of work. Employees are motivated by knowing what they have to do, but having a certain amount of freedom in how they do it.
- **Bet-Your-Company** – A company has a single idea, and the success or failure of that company depends on decisions individual employees make. This is a risky move, but can turn into a huge success for everyone involved if it pans out. Many software startups adopt this culture.

Your organization's culture may fall into one of these categories, or it might be something completely different. Most likely, it's some combination of two or more cultural types, or maybe each department has a certain level of autonomy and has its own culture. But determining what the focus and feeling of your workplace is an important step in getting the best from your workforce.

Employees

Just as there are many different ways to parse what an organization's corporate culture is, there are several ways of looking at the types of people working for you.

Obviously, there are fixed time employees, like full-time or part-time, as well as casual and seasonal workers. That's one way of categorizing your employees.

But there are other ways to think about the people who work for you. And you should. These people devote most of their waking time to helping your company be successful, so understanding who they are and what motivates them is important in getting the best from them and reducing employee turnover. (We all know how expensive it can be to train up new hires).



Types

There's no end of articles and systems out there that come up with different employee types. You'll need to research the different methodologies and find one that matches your culture and your goals.

In a blog for Forbes, Luis E. Romero identified three employee types:

- the Freeloader – looking for a paycheck, doesn't matter what they do to get it
- the Worker – looking for a job, a role in which to feel useful
- the Entrepreneur – looking for something to further their own personal vision and mission

Inc. Magazine identified six types of modern employees:

- the Totally Committed – work is life, responds well to a company that makes it easy to never go home with lots of perks and extras
- the Higher Purpose – work needs to make a difference in the world and people's lives, serve the greater good
- the Malcontented – working here is just as good as anywhere else
- the Bottom Line – the specifics of the job are less important than their take home pay and benefits
- the Old-Fashioned – would probably be happy to spend their entire career with your company if given growth opportunities
- the Millennial – motivated to work provided there is more to their job and the company than just profit, and there's flexibility in the workplace

James Sale identifies nine types of worker, based on specific motivators:

- the Defender – wants security, stability and clear roles and paths
- the Friend – wants fulfilling relationships and to belong
- the Star – wants to be respected and recognized
- the Director – wants power and influence
- the Builder – wants material satisfaction
- the Expert – wants knowledge and skills
- the Creator – wants innovation and change
- the Spirit – wants independence and autonomy
- the Searcher – wants purpose and meaning

Various methods and strategies exist for determining what types of employees you have working for you, such as John Sales' Motivational Maps, the Jung Typology Test, the Myers-Briggs Type Indicators (and reactions against using this in employee testing, such as the Hire Success Employment Testing System) and lots of others. You can get links for many of these at the end of this white paper.

Yes, each person is a unique individual and there are dangers to grouping people together. But unless your organization has a 1:1 ratio of managers to employees, you need to have some understanding of the general categories your people fall into to effectively lead and inspire them.

Generations

We spend all day on computers of various sizes at both work and play, creating and interacting with electronic files using software and protocols. This is even more true of the younger generations, Millennials and their children, Generation Z. Think of the now-cliché image of a group of people in their 20s or younger – sitting around, not talking, faces lit by their phones as they do who knows what online. It might seem like the time of the machines is here, and the machines have won.

But that's not a bad thing. We may use electronic devices more and more, but we are using them to communicate with other people. Those Millennials may be looking at their phones, but they are actually interacting with others, sometimes people geographically far away, or maybe even people they've never met in person. We use our computers to correlate data and send it in an email, but that email goes to people, so they can do their jobs better and prepare for a meeting in which people will be talking to people. Connecting people is what it's all about.

There are currently three generations in the workplace – three very different generations, and another is poised to enter the workforce very soon (or already has, according to some). Considering these unique age groups and their influences is a valuable exercise in understanding their motivations, values and technological savvy:

Baby Boomers – Born 1946-1965

Boomers are one of the two most prevalent generations currently in the workforce, alongside Generation X. They want to express themselves and are very focused on work.

- Famous people include Mitt Romney, Bill Gates, and Meryl Streep
- Influences include the Civil Rights Movement, the Vietnam War, the Sexual Revolution, and the Cold War

This generation grew up in a time of prosperity and relative peace, yet many became the radicals of the 60s and 70s. They have a distrust of authority and question everything, believe in equal rights for everyone, are very involved and optimistic, and often choose personal gratification over long-term goals.

Boomers invented the 50-hour work week and can be “workaholics”. They believe that experience creates value, and have a high work ethic. Technology is something to acquire if it is useful. They prefer a “flat” organizational hierarchy. They are team-oriented and believe in fairness and a level playing field.

Generation X – Born 1966-1985

Flexibility is key for Xers, and things that let them do things better are appealing to them. This is a generation that likes to know things, and have a broad view. They are the largest part of the workforce, need honest feedback, and are about developing skills, ideas and relationships.

- Famous people include Matt Damon, J. K. Rowling and Elon Musk
- Influences include Watergate, the energy crisis, dual income families and single parents, the fall of the Berlin Wall, and Y2K

This generation is the first to have a lower standard of living than their parents, and have grown up in an environment that fosters deep distrust of authority. They seek balance as well as diversity, have a strong entrepreneurial streak, have very high expectations for their jobs, are informal and skeptical, tend to think globally, and are technologically literate.

Xers are self-reliant and seek to streamline tasks and workflows. They often receive a sense of value from merit and recognition, yet continually test authority. They tend to change jobs more frequently than earlier generations, looking at each job as the acquisition of skills and contacts. Casual work environments suite them, which they see as contributing to higher productivity. They assimilate technology quickly, especially if it saves them time. They are all about efficiency and having access to management and information. They prefer a more flexible organizational structure.

Millennials (or Generation Y) – Born 1986-2005

This is the fastest growing group entering the workforce. They are all about connections, common interests and constant feedback.

- Famous people include Britney Spears, Mark Zuckerberg and Serena Williams.
- Influences include the World Wide Web, the Tech Boom, mobile phones and social media, and 9/11.

As children, Millennials were kept extremely busy (being the first generation of children with schedules), are very focused on achievement and recognition, combine a high sense of morality with a deep love of fun, are extremely competitive while remaining highly social, and consider themselves realists.

Millennials are multi-taskers who believe that contributing is the most important thing they do. Environments which allow them to be creative and reach goals are best. Work is just part of what they do, though they can be enticed to commit huge amounts of time and energy to an organization that offers them flexibility, perks and training. Community and self-development are important to them. They are very tech-savvy and are constantly seeking ways to improve their own experience in the workplace.

Generation Z (or iGen) – Born 2005 to present

Who is in this group partially depends on how you decide to divide generations. Some say it should be every 20 years, like it has always been, while others say that technology and rapidly changing cultural norms dictate using different time scales. So, depending on who you listen to, Generation Z are born in either 2005 or 2000. Still others say you should go back to 1996.

Whenever you start measuring from, they are a bit like their parents in that they, too, have grown up with the internet and mobile phones. But they have also grown up with smartphones and other mobile computing devices, as well as social media. This is the Web 2.0 generation, and they seem to be as different from their parents as Millennials seem to the Gen Xers who raised them.

Traditional roles and attitudes are breaking down for this generation. They are comfortable with having multiple versions of themselves, and even multiple “identities” presented to the world at large. They are self-aware, self-reliant, innovative and goal-oriented. Education is very important to them, though not necessarily in a traditional sense. Having knowledge and being able to use it is much more important to them than having a diploma or certificate. They crave digital freedom, moving away from “old fashioned” platforms like Facebook to faster, more temporary sites like Snapchat. They also like to figure things out on their own or with their peers.

They want very much to make positive change in their world, and are even more diverse than their parents (in everything from ethnic background and gender identity to belief system and tolerance for differences). This will likely be an ambitious, self-reliant and highly sociable group of people when they enter the workforce.

Backgrounds

Your employees also come from different backgrounds, and these need to be taken into account as well. Things as varied as education, ethnicity, language, religion, race, gender, and gender identification can impact what they want and expect, and what makes them happy. It’s important to explore individual backgrounds to understand how these can fit in and contribute to your own culture, mission and workflows.

Thinking about who your employees are and where they come from can help you find the best ways to motivate them and maximize their productivity. The two go hand in hand – a HayGroup study shows highly engaged employees are up to 50% more productive and 54% more likely to remain at a job. If you can harmonize your culture with employees’ motivators, you’ll know how to both inspire them and maximize their experience.

Activity-Based Workspaces

The next thing to consider is a bit more tangible – it’s about the physical configuration of your workspaces and how your employees use them. Form follows function, and you want an office infrastructure that maximizes the potential of the specific workers at your specific company.

There are traditional office layouts with private offices ranged around the edges of a common floor, often with an administrative assistant out front; cubicles in lines with high walls, cubicles in lines and clusters with low walls, and open office floor plans. In all of these layouts, it’s basically a one desk to one worker ratio, with desks arranged in a way that makes communication with peers and managers easy and efficient.

Then there’s Activity-Based Working (ABW). The office space is divided into different zones, each for a specialized kind of task, and the employees use each space as need be, depending on what they are currently working on. Workers don’t have a fixed location that is “theirs”, but roam the office at will, working from anywhere.



Two strategies that use this concept are “hoteling” (where workers reserve a specific workstation in advance, for a certain day and time period, using a centralized booking system) and “hot desking” (where workers can immediately sit at any workstation that is currently vacant).

These methods only work well if either 1) each workstation has a computer, and all data is stored in the cloud so it can be accessed from anywhere, or 2) each worker has a WiFi-capable laptop or tablet they carry with them as they move from one work space to another.

Real Savings

There is great appeal to ABW schemes for a modern workplace. Studies show that the average worker is only at a desk 45-50% of the time they are in the office. A single desk costs around \$10,000 a year to maintain, and if people are only using a particular desk half the time, that’s \$5000 a year wasted for each and every desk in your office. In a medium-sized office of 250 employees, that’s \$1.25 million a year in waste out of a \$2.5 million annual expenditure. That’s a lot of money.

And there’s the technical infrastructure associated with each desk – a phone, a computer, network and power cabling, furniture, electricity, and so on. So, by adopting ABW principles, that same 250-person company spends \$1.25 million a year on 125 desks – even less, because the employees have their phones and computers with them. It also means that they don’t need as large an office footprint, which means less money spent on leases and property taxes.

Worker Satisfaction

Not only does ABW save in costs, but it allows more flexibility for your workers and encourages collaborative work. This might be just the thing that your corporate culture wants to promote, and something your workers may respond very favorably to. It can also be a draw for acquiring new talent, and something that keeps current workers from looking for a job elsewhere. If you’re a person who thrives in a flexible, re-configurable environment, why would you consider going back to a traditional office set up?

Company events to create a team atmosphere have been around for a while, but it’s also becoming rather commonplace for offices to include cafes and cafeterias, nap and relaxation rooms, music and game rooms, showers and other on-site perks that appeal to certain types of employees.

Many companies have already implemented some sort of FlexTime program, where employees can work a certain percentage of the week from home or on the road. And many more companies are adopting additional ABW ideas and reporting significant results. Some different types of ABW environments include:

- **Group Desks** – clusters of desks that are available to anyone at any time, encouraging teamwork
- **Quiet Desks** – workstations off on their own, for when people need a quiet place to focus their concentration
- **Visitor Desks** – group or quiet desks that are designated for use by people who are visiting or just in the office for a very short while
- **Team Desks** – large tables for a group to have a collaborative meeting or discussion, but don’t need the privacy of a separate meeting room
- **Huddle Spaces** – small private spaces for 1-2 people, isolated from the rest of the office environment; could be a booth, a work pod or a cabana
- **Standing Zones** – common spaces without furniture, designed for a super-fast meeting or quick conversation; the idea is to use these spaces for no more than 15 minutes
- **Super Desks** – new ideas for desks, from long high tables that are shared by people sitting on stools, to moveable desks that can fit together to make a larger work area or break apart into smaller spate ones; or, very long desk areas that also include small huddle spaces in their design, making a mini office all in itself

- **Meeting Rooms** – for longer meetings, training sessions, presentations to large groups or longer collaborative sessions
- **Overlap Zones** – parts of the office where people from different departments or specialties can run into each other, fostering unplanned interactions that can spark creativity and collaboration
- **Lounges** – casual gathering spaces with conformable furniture where people can meet in an informal environment to collaborate or relax
- **Video Zones** – single desks, huddle spaces or meeting rooms with videoconferencing capabilities to connect remote workers, vendors and others to people inside the office

After the initial costs involved converting to a more Activity-Based Workplace, companies start to see savings early, even in the first year. And many employees take to these kinds of environments. While there is currently a backlash against open office floor plans because they are just so noisy and distracting, employees in ABW offices report that they have improved concentration because they can vary the environment they work in, or retreat to a quiet zone if they need to.

And your employees are really what it's all about. Design Thinking, sometimes called Human-Centered Design (HCD), says to organize and design things to maximize the human experience. You probably already do this with your customers – how can you give them the best products and services possible, and gain their loyalty? Now extend that to your employees. Think about your office and processes from their perspective. ABW allows greater flexibility for your employees, empowers them to make decisions and utilize particular work areas as they prefer, grants them a sense of ownership and builds trust within the organization, and increases their wellbeing and health.

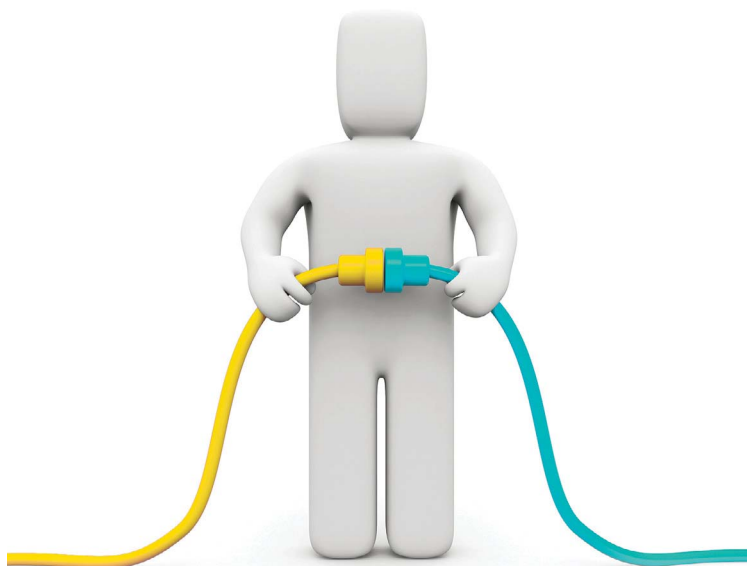
And the fastest growing segment of the workforce, Millennials, take to office environments like this much more than to traditional layouts. The older generations are retiring, and the old ways of doing things just don't appeal to Xers and Millennials. Multi-purpose work environments are at the top of almost every list of "hot trends" for the coming year. Between 2000 and 2013, cubicle sales went down 13%, and continue to fall. This is the wave of the future, and as we eventually see Millennials getting into management positions, we will see more office spaces designed with ABW in mind.

Technology

In many ways, technology is what makes the modern workplace possible. The role of the physical office in the digital workplace is even more important than before. Not just the physical layout of things, but also a smarter workplace that leverages and uses the Internet of Things – where devices talk to other devices without human intervention. This is concept called Bürolandschaft – a German word meaning "office landscape".

More and more organizations are going for a paperless office, which is environmentally responsible as well as cost-effective. No paper means no printers, ink cartridges, pens, paperclips, staplers, staple removers, hole punches, binders and all the other paraphernalia needed to maintain physical documents. Also, no filing cabinets to store documents in, no storage facility costs for overflow documentation (and transportation costs), and so on.

Many companies are already experimenting with ABW concepts using portable computing within the office.



Bring Your Own Device (BYOD) policies allow people to bring in and use the laptops, tablets and smartphones they already own. Other companies worried about data security have devices for use at the office, supplying lockers for people to put their personal belongings in while on site. Sometimes the devices are dedicated to specific employees, and sometimes everything is uploaded and stored in a local cloud network, so it doesn't matter which device you use.

WiFi and Bluetooth technologies are key to making modern offices like this function smoothly. And telecommuting is on the rise across many industries, showing a 79% increase from 2005 to 2012. Employees already use devices and technologies like this in their day-to-day lives, so why not use the same things at work? If they are telecommuting, they are probably using their own devices anyway.

Despite the popular term "digital workplace", it's really about putting people first – adding a technological layer that positively impacts employees and drives change in the organization. Management coordinates and facilitates between the technology, processes and people, and is still responsible for effective communications to and among teams.

Communication in the modern office is no longer as simple as pushing out mass emails. To connect with modern employees, you have to deliver dynamic content that engages their interest and motivates them to act. You also have to consider all of the different media, delivery methods, networks and devices, and then pair those with multiple employee preferences.

It's about creating a consumer-like experience for your employees, which makes them more effective. Communicating effectively, encouraging sharing and incorporating modern technologies to help with this can keep your company competitive in the increasingly fast-paced business world.

Digital Signage and HCD

Digital signage has been leading the way towards the digital workplace for some years now. Especially in an office environment where people are constantly moving from one location or workspace to another, nothing unifies the company more effectively. And with modern technology, you can turn any device with a screen into a digital sign.

You can publish a playlist of messages to any number of screens, and those screens can be anywhere you want – different rooms, different floors, different buildings, even different locations around the world using a cloud network. Or different screens can be targeted with different playlists for different audiences, letting you deliver unique communications for different cultures, spaces or teams.

You get your audience to rely on your digital signage by offering hooks - things like news feeds and tickers, current date and time, local weather and forecasts, commuter traffic data. They want this information, and you save them the time it would take them to look it up on their laptop or smartphone, and they see your corporate announcements at the same time.

In addition to messages about upcoming events, safety reminders, deadlines and whatever else your audience needs, you can display auto-updating metrics that show data changes in real time. Display progress towards goals to motivate your employees to push that extra little bit to get to the target. Show current energy and water consumption to encourage people to adjust their behavior, saving money and being environmentally responsible.

Interactive touchscreens allow even denser message saturation. Searchable directories let people sift through large amounts of information quickly on a single screen. You can combine multiple playlists and data sources in one place for easy access. Having digital signage with interactive menus can let people see what's on offer in the on-site cafeteria and order right there from the screen. Or, you could offer short training modules at touchscreen kiosks throughout your facility.

Then there are room signs. These are mounted on the wall outside meeting rooms, huddle spaces and other office hoteling areas, and show when a space is booked and when it's free. Interactive room signs let people schedule a space right at the sign, and the sign communicates with your calendar app, so there are no double bookings. Plus, you can see data on how effectively people are using your spaces. You can even integrate your online calendar app, room signs and large interactive screens to offer room booking from anywhere.

Digital signage is also a great tool to promote another modern workplace concept – microlearning. Show clear, concise snippets of information, like “How to Book a Huddle Space” followed by a stripped-down set of instructions, or “The Benefits of Snacking” followed by statistics on health and productivity. These short instructional messages get repeated throughout the day as people walk past your screens, and the information sinks in after just a few repeated viewings. This can also be a very effective way to inform your employees of changes you make to the workplace environment as you implement modern things like relaxation rooms and standing zones.

Using Digital Signage to Promote HCD

The word “communication” comes from the Latin *communicare*, which means both to impart and to participate. Think of all the words that come from the same root: common, communal, communion, community and even commerce.

This means that at every stage of a project, the focus is on users and other people involved – what they need, what they want, what they will find useful or interesting. In the digital signage context, it means getting into the mindset of the people you are trying to communicate with, and trying to get them to engage and maybe even interact with what you’re telling them. It means asking the right questions at every stage of your digital signage deployment, including:

- Pre-deployment Planning
- Implementation
- Expanding to a larger deployment or other locations
- Tweaking in a process of continuous assessment and improvement

You want your digital signage to be the best it can be – it cost some money to get it up and running, and the better you use it, the more valuable it becomes. And you can’t do this just sitting at your desk, thinking about it.

Walk Around

Get up and roam the premises. See which digital signs and messages draw your interest, and which ones don’t. Stand in one place for a while and observe how many people look at the screens, and if they just walk past or stop and linger. Think about why they do what they do. If you have on-site venues, such as a café or commissary, and are using digital signs to drive traffic, ask both patrons and staff if they’ve seen recent messages, and if those messages increased traffic, or inspired them go there.

Think about everything – even the placement of your displays. Is that one too high? Wow, that one sure gets a lot of glare in the afternoons. The best way to understand your audience is to become a member yourself.

Make Feedback Routine

You need a system in place that allows people to let you know what works and what doesn’t. This should be commonplace, woven into the fabric of your organizational culture. Create a system, or series of interlocking systems, that allows people to give you feedback any time they want to. This gets them interacting with your organization at a higher level than just recipients of information – it makes them active partners in an ongoing process of people communicating with people.

For digital signs, this could involve periodic surveys, letting viewers vote on favorite designs or asking people to submit a simple suggestion form detailing what they’d like to see on screens.

Communication is a Group Activity

Imagine a cocktail party where everyone took turns speaking one at a time. How much fun would that be? Not much. At a party, you want buzz, a word that is also used to describe both excitement and word-of-mouth about something. In a world of social media, of tweets being official pronouncements and Facebook comments being used as news copy, it’s all about the buzz.



Communicating with your audience isn't just the job of one team pushing content out onto digital screens. People today consume information, but they also interact with it. Websites that don't allow comments are seen as less trustworthy (what are they afraid of?), and old-style push-only communications are seen as hopelessly outdated and old fashioned at best, and as annoying and authoritarian at worst. People expect to interact, so use that to both your advantage and theirs.

Create message templates so anyone can create digital signage content, or publish design and layout guidelines so everything remains consistent. At the very least, set up an easy-to-remember email or web address where people can send message ideas.

Members of your audience can help create and curate content, but you also want them to interact with what's being shown. Make sure each message has some sort of measurable call to action – something people can do, preferably right then and there. On static screens, this could be a limited-time offer (“Buy one muffin and get a second one free for the next hour”, and then you track how many muffins are sold in that hour). Or you could have something right there that people can interact with (show messages about signing up for a blood drive, and have a table nearby with forms and information, maybe even people they can talk to).

You can also drive traffic to the web by supplying a QR code or short URL, so people can immediately get more information using their mobile device. On interactive screens and kiosks, people can simply push a button that says, for example, “Sign Up Now” and go to the online registration form right there at the sign.

The HCD Design Kit for Digital Signage

The company IDEO is one of the pioneers of HCD, and they break the process down into four stages: Inspiration, Ideation, Prototyping and Implementation. Looking at their website can give you some inspiration that you can turn into ideas that can become prototypes and get implemented. In this blog, we look at the first stage and how it can be applied to digital signage in your organization.

Inspiration

HCD says to “frame your design challenge”, so maybe we should say “frame your communication challenge”. For single messages, try to sum up the essential information in as few words as possible, then design the text around them. Ask yourself what you're trying to get your audience to do, and think of several ways to communicate that.

Make sure the important words are accented in some way – bold text, slightly larger font, placed in area of the screen where the eye naturally goes, etc. Would a picture help communicate some of what you want to say? You want your message to have maximum impact, so craft it wisely. Then think about when to schedule it in the playlist – what the best time of day for this message is, how often it should be displayed in an hour, if it should only go to certain screens, etc.

When designing an entire implementation, use the same ideas to decide where to put displays, what kind and what size, and so on. How do you want people to interact with your digital signs in, say, the lobby? Would a big video wall be best, or would a series of smaller screens and interactive kiosks further your overall aims better?

Another part of this stage of HCD is asking the Five Whys. This is applicable when improving your digital signage offering. Are people following your calls-to-action? Why or why not? And ask why multiple times – drill down to get to the nut of the issue, and find out why certain messages that succeed work and how you can apply those lessons to ones that don't work so well. You might have to keep asking why four or five times.

There's a nice idea at this stage before interviewing people to ask them to take snaps of everyday dynamics and moments. Getting a few people to walk around and snap a picture each time they see something appealing on your displays could be a great way to get feedback on what's effective and what isn't. Ask them to photograph things they like, but also things they don't. Then discuss the pictures they, and others, took when interviewing them.



You also want to talk to people – your audience as well as the people who create and schedule your content. If it's feasible to talk one-on-one with people, do so. If not, create a feedback system so people can tell you what works, what doesn't, and what they like and don't like. People are the focus of digital communications, so let the people be your inspiration. Ultimately, they are the judges of whether something is successful or not.

When you involve people in your digital communications strategy, make sure it's fun and not a chore, or yet another directive from on high. After going through the process a couple of times, they should be looking forward to the next chance to talk with you instead of dreading it.

No more than three people should be conducting the interview, and each person who is there should have a clear role (this one asks the questions, this one takes notes, etc.) Make sure the interview takes place on neutral ground – no one wants memories of being sent to the principal's office. Group interviews can also be highly effective – people will bounce ideas off one another, and they may feel more at ease in a group. If you have more than one interviewee at a time, have a strategy for encouraging quieter members to share their insights and impressions. Try to have a range of types when conducting interviews, power users and part-timers alike, so you can get the broadest picture possible about how effective your communications are.

Gamification is a great way to get people interacting with your message content. Tweaking your calls-to-action so they're presented as part of a contest of some sort (or a race against other people or teams) will get people's competitive spirit up. Having tangible prizes of value at the end of a "game" also encourages people to take part. Another benefit of gamification is that it builds a sense of community among everyone who knows about it – not just those who actually take part, but even people who are around in the background; they hear others talking about the game, or the prizes, or laughing about how fun something is, and it allows them to share in the experience. They might even be encouraged to actively participate in a future game, once they see how much people enjoy it.

The real point here is to inspire your audience – not just wow them with stunning visuals, but make them all fans of your digital signage system. Allowing them to interact with the admin side of things by creating content to be scheduled, or by providing feedback to content creators, gets them thinking about the whole system more. And the more it's on their minds, the more attention they will pay it. Even technophobes will start to shift their opinions – instead of screens everywhere, pushing content out at them in a Big Brother-type way, they'll start to see that communication is a two-way street, and that they also have valuable things to contribute to the ongoing conversation your digital signage enables.

Ideation

You've found ways to get inspired in new directions, as well as inspire others, so now it's time for Ideation – giving form to your ideas and concepts. More specifically, how will all your wonderful ideas actually be presented in the real world? What steps need to be taken to turn ideas into a working prototype – in the case of digital signage, messages that have maximum impact and engagement.

In the first step, Inspiration, you gathered a lot of information – data, pictures, quotes, impressions, interviews, etc. Now it's time to Download Your Learnings (but not with computers). Get your team together and sit in a circle. Each team member shares the basics of the information they gathered on Post-It notes, as well as details as to how they gathered that information and who from.

As more team members report, the Post-It notes are put on a board where everyone can see them, grouped in a way that show their similarities and connections. In this way, all the information begins to come together in a way that can be useful. It's best to do this when impressions are still fresh.

Then the group as a whole begins to Bundle the ideas into solutions – maybe two or three ideas can be combined into one more complex theme. As you do this, more patterns and themes will emerge. Workable solutions will begin to become apparent, and can now be turned into elements in a single system that furthers your overall goals.

As individual ideas begin to fit into larger patterns, it may help you to draw some of them. Things like charts, Venn diagrams or matrixes can make things clearer, and so easier to work with as your shape your Frameworks. You want to take all the ideas you've bundled and refine them into Concepts.

A Concept is something you can turn into a workable real-world solution. Think of things in terms of answering the question “How might we...?” The results of this process will drive everything else in this stage.

So, let’s say that some of the information gathered in the first step includes:

- Pictures of hard to see displays (because they are too high or get mid-afternoon glare)
- Quotes from interviewees about previous messages and campaigns they remember that indicate that having high contrast colors and text draws their eye more
- Further quotes that show they remember funny mascots and characters created in previous communications efforts
- A lack of pictures or comments about messages that you thought would be effective (which tells you that they aren’t)
- Observational records that show that people stop when they see video or movement on the screens
- Complicated graphs and charts don’t seem to register with your audience
- Longer campaigns (a linked series of messages displayed over time) are more memorable to your audience than single messages

One of your team’s goals this month is to reduce power usage in the main building. By assembling all the above information into clusters, you can see that one way to do that might be to create a mascot, say a smiling light bulb, to guide your audience through simple explanations of when to turn off lights and equipment, how to set electronic devices to enter energy saving mode, and why these are good ideas. You can see from the information you’ve gathered that complicated graphs of power usage would be a less effective way to reach your audience than these simpler messages. And pictures with slight movement, cinemagraphs or very short video clips will probably be more effective and engaging than just still images.

Of course, if you found instead that graphs and charts are more appealing to your audience than cute characters, then you would know that you should incorporate those into your digital signage offering. (Perhaps you could even incorporate real-time data in an attractive dashboard display.)

Another useful tool is to look at an overall goal, and then list all the barriers that can prevent that goal from being realized. What limitations get in the way? Have a brainstorm session about how to marry your overarching goals with the realities of your environment and resources. This is also a good way to find out that some specific ideas won’t work – it’s okay to let them go and focus on what is achievable.

Mash-Ups are a great way to stimulate thinking. You ask yourself what it would be like if one thing were like another. For example, if you want more people going to the on-site café, and you also find that your audience seems to prefer Instagram to other forms of social media, then you might ask “What would an Instagram version of a café look like and do?” Combining seemingly disparate concepts into one can stimulate a lot of innovative and creative ideas.

You need to isolate one quality from this Mash-Up that you can add to your overall solution. In the example of the Instagram Café, maybe it would be the ability to share information (specifically pictures), or to add filters to things (which could translate as more options to individualize orders at the café). Or it could be about some great food and drinks photos (shareable, could be turned into a gamified solution in which the best pic of the day gets a free drink). Be bold, be wacky – this is outside-the-box thinking.

And always be thinking visually. Is there an image you can use to further your goals rather than words? How will it all look on the different types of digital signs you’re using? What have people told you attracts them, and what do they remember? Design for them, not for you.

With your designers and content creators, who are people, working with the information taken from the audience, who are also people, you can be sure that you are crafting digital signage messages that will engage and increase participation and engagement.

Prototyping & Implementation

Now we’ll take a look at how Prototyping & Implementation – the final stages of the process – can be adapted to craft meaningful digital signage strategies.

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1) REMEMBER THAT COMMUNICATION (EVEN VISUAL) IS A DIALOGUE.
We often forget that good communication is a mutual experience, as opposed to a “push” system that merely sends information from one source to another. This is especially important when designing visual communications. You want to make sure you engage your audience so they understand your message and take the appropriate action:

 - Choose topics, language and images relevant to your audience
 - Invite participation and feedback with calls-to-action
 - Be respectful, just as you would in face-to-face communications
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2) DEFINE WHAT YOU WANT VIEWERS TO TAKE AWAY FROM YOUR MESSAGE.
Each visual communication will have its own motivation and benefits:

 - To compel – student clubs and activities, benefits enrollment, charity drives
 - To inform – policies, classes and training dates, wayfinding, weather and news
 - To motivate – recognition, awards, stocks, productivity stats, internal contests
 - To include – welcomes, new hires, birthdays, community and social activities
 - To recognize – awards and achievements, safety benchmarks, sports team stats
 - To warn – severe weather, fire and other emergencies, security threats
- 

3) DETERMINE THE BEST DELIVERY METHOD FOR THE INFORMATION.
Successful communication takes careful consideration when crafting the message, and effort on the recipient's part as well as the sender's. Because we can't control our audience's viewing patterns, preconceptions or distractions, we have to work hard to break through those barriers to convey clear, unambiguous communications that will be both scrutinized and understood:

 - Choose a convenient deliver method for your audience
 - Match the content to most effective medium
 - Say it in multiple ways across multiple mediums for maximum impact
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4) DISTILL WHAT YOU NEED TO CONVEY TO ITS SIMPLEST FORM.
This may seem rudimentary, but getting back to basics can clean up clumsy processes that produce poor visual communications. Messages can become clunky or unwelcome when we only consider one side of the equation: What do I want to say? Instead, during each phase of communications, we must ask the opposing question: What do they need to know?

 - Keep messages short and sweet
 - Use attention-grabbing headlines and graphics
 - Give basic details and direct them elsewhere for lengthy info
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5) DETERMINE IF THEY UNDERSTOOD AND TOOK THE DESIRED ACTION.
Poor communications in any form causes confusion and results in missed opportunities. In visual communications, we face the added challenge of delivering messages without personal contact for clarification. Misinterpreted communications can cause more damage than if they are ignored. Our goal should be to ensure that viewers understand the message and act accordingly:

 - Publish concept-checking questions as follow-ups to messages
 - Consider surveys or polls to check understanding
 - Quantify ROI with easily measured calls-to-action

First, you'll want to come up with a rapid prototype of what you want to accomplish. You are mainly looking for interaction – with your digital signage messages, with your calls-to-action, with your screens – so consider roleplaying the ideal interactions your audience would have after seeing your communications. This means actually going through the motions – you need to see something tangible that you can really work with.

After trying this out on yourself and your team, get some of the people you interviewed earlier to walk past a single display with your message on it, and see what their responses are. If you're trying to design a logo or mascot character, put it on a hat or t-shirt or poster, and see what people's reactions are. If you want people to follow a call-to-action, see if they take the correct steps. Then interview them and ask them for their impressions. Getting feedback is crucial if you're going to have long-term success with your audience.

The next thing to do is integrate that feedback, and then iterate another prototype. Use brainstorming sessions, frameworks, and other techniques from earlier stages to fine-tune your message. Then test out the new improved version on a select audience.

You are now ready for Live Prototyping. This means putting your messages out on multiple screens and observing if people stop and look, if they follow the call-to-action, etc. Spot check the audience with brief questions about what did or did not further your goals (keep it to three questions max). Then iterate some more.

You'll also want feedback from various stakeholders. Getting them on board at this stage in the process might trigger a cascade of great new ideas, or simply confirm that you're on the right track. But the more people who feel like they are part of the process (the more humans you incorporate into your Human-centered Design), the more effective it will be. You should also have someone to champion your new initiatives, adding excitement and buzz to the deployment.

Also, make sure the people who will actually be running your system have some say. These are the people on the front lines, creating and scheduling your content on a daily basis. Give them a stake in the planning and testing stages to ensure they understand the goal, what works and what doesn't.

Your messages or campaigns are now ready to be launched. But the work isn't over. You should always be improving your communications by finding out how things are being received and what people respond to, even after you think you've finished. This will build on past successes and create better frameworks for future messaging. Measure and evaluate, and adjust as needed.

By always keeping a human focus when designing your digital signage campaigns, you'll be more effective, and more appreciated by your audience. Digital signs may be electronic, but behind it all are people communicating with people – and that's essential to the success of your signage.

The Future

In the next few decades, as the Xers begin to retire and the Millennials dominate the workforce, we will see more adoption of green technologies in buildings, more flexible Activity-Based Workspaces, an enlarged Internet of Things (IoT), and smart offices that use little or no paper. Offices will transform to suit the employees' needs, and collaboration and flexibility will be so commonplace that companies that are not configured in these ways will fall behind.

Buildings will generate their own power and grow their own food. Workplaces will become more than simply places of toil, but will encourage more productivity from the workforce by making work feel a lot more like home. And everyone and everything will be connected.

Other innovations currently in the works that may impact the future workplace include:

- **Wearable Computing** – Whether it's computers mixed with eyeglasses or something else, mobile and portable computing will become smaller and more integrated into everyday life. Things being worked on right now include smart contact lenses and microchip pills.

- **Augmented and Virtual Reality** – Digital environments will become more graphics-based and more immersive, either creating realistic wholly digital spaces, or allowing a technological interface that overlays digital content onto the real world.
- **Real Hands Free** – Instead of screens, the future will have projectors with touchable interfaces, allowing any surface to become a temporary screen (for example, Sony's prototype Xperia or Argodesign's Interactive Light). Voice-activated Virtual Personal Assistants, like Siri, Alexa, Cortana and Google Now, are already becoming common. The mouse will become a thing of the past. Visual computer navigation, which tracks where your eye looks, will also supplant the mouse (current devices being developed include Samsung's EyeCan+ and Tobii's EyeMobile).
- **3D Printing** – The ability to create any physical object you need, and then easily dispose of it when finished after a single use, will transform the way we think of objects, and ownership.
- **Teleworking** – Remote working will continue to grow as more companies see that it makes workers more productive and saves them money on office infrastructure. Improved telepresence technology will also allow people to essentially work as if they are physically in the office, interacting with computers and devices from their own home or car (which will drive itself).
- **Wellbeing is Key** – Nap rooms and relaxation areas have already been shown to make happier, harder-working employees. Innovations such as Biophilic Design, which incorporates natural elements such as live grass and natural light into the workspace, shows workers reporting a 15% increase in wellbeing, which translates into a 6% increase in productivity and a 15% increase in creativity. Devices such as Walk Stations, which are standing desks attached to a treadmill, have also shown that people who exercise just 20 minutes each work day are more creative and have better memory retention. And they don't have to take off work early to get to the gym, because the gym is there at work. Another idea a few companies are experimenting with is having 24-hour office hours. Some medical studies show that the 9-5 work period is actually not conducive to good health. As the concept of work becomes more task-oriented, it really won't matter when someone works on a task or project – just that it meets the deadline. Smaller, more streamlined offices that leverage technology effectively will allow workers to come in whenever they best like to work, and not be stressed because they have to get up earlier than they like, or must pay for daycare for the kids.
- **Personalized Content** – Eventually, employees will have individualized apps on mobile computing devices that tailor content to what they specifically need and want. Each person will have what they need and only what they need – task lists, working files, social feeds, you name it.

Some think this will be the ultimate solution to the age-old problem of work-life balance. The two will become so blurred that there will be little difference. As work becomes more like life and play, people will work more efficiently, and be happier and healthier.

Conclusion

In truth, the future is now, and it's time to embrace the changes that are here and on the way. Companies that fail to change with the times may find their market position severely challenged, passed by more flexible organizations that embrace changes in both processes and thinking.

Yes, there are financial benefits to modernizing your workplace. But it's really about people – the people who make up your organization and devote their time and energy to that helping you succeed. Your company is your people.

Modern workplaces make modern employees happier. And there's really no price tag you can put on that.

Want to learn more? Contact us at salesteam@visix.com.

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