

2017

WORKPLACE
TRENDS

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*Michael Norris,
Chief Operating Officer
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None of us have crystal balls. If we did, however, as business leaders we may be tempted to peer into the future and see what our current workplaces look like. There are questions we'd all want to answer: Are we working smarter? What problems have we solved? Are we more productive, engaged and happy? Has our quality of life improved?

At Sodexo, we believe it's vitally important to identify what's next in the evolution of the workplace. We believe this for a number of reasons. Chief among them is the direct correlation between how we work and the quality of our lives. Most of us spend more of our waking lives at our places of employment with coworkers than at our homes with our families. Yet, research indicates millions of Americans who work full-time are either unhappy or, at best, merely apathetic and uninspired with their employment.

In this report we identify some trends we feel will have a significant impact on reversing some of that discontent and disengagement.

These trends all lend themselves to a future business reality: employers won't just build offices and provide their employees with a laundry list of standard benefits. The workplace of the future will be designed with the *experience* of the employee in mind.

And, to that end, companies will look to partners like Sodexo to create this workplace of the future—one in which employees are engaged, healthy, productive and enjoying a quality of life that will be key to the growth, performance and ultimately the success of any company.



From the CEO

*George Chavel
Chief Executive Officer of Sodexo,
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If you're running a company, here's something to consider: of the approximately 100 million people in America who are employed full-time, only 30 percent are engaged and inspired at work, according to Gallup's 2013 State of the American Workplace report. That means 70 million people in this country are either "actively disengaged" or simply "not engaged." Translation? When it comes to their jobs, many Americans are checked out.

To some, "engagement" may sound like corporate jargon, but it's really an idea rooted in common sense. Some people like their jobs, while others decidedly do not. Those who don't simply aren't as productive. So from the C-Suite perspective, employee engagement should be recognized as an essential element to the corporate culture, one with significant financial consequence.

How significant? Back to Gallup's findings: they found that poor, unengaging leaders — those who don't motivate or inspire their staffs — result in an apathetic workforce that costs the U.S. an estimated \$450 billion to \$550 billion annually. Many executives wouldn't want to imagine how much of their own revenues are washed away by the unproductivity associated with that apathy.

Thankfully, it is possible for companies to combat this trend. In the future, more and more businesses will attribute their success to an idea that is slowly but surely catching on: you don't hire engaged people, you create them. And the key to creating them is to understand how to enhance not only their productivity and engagement, but also their *quality of life*.

In short, the future workplace will be as much about living as it is about working. So, innovative companies will design employee-centric office buildings and workspaces. The environment will be thought of as an important part of the employee's experience, facilitating productivity, work and inspiration. Those spaces will use less energy, be connected to the natural environment and be free of toxins and chemicals. Companies will also spend more time developing a workforce with a global perspective; incorporating games into employee training, developing ways to not overwhelm employees with information in an "always on" environment; and adopting an approach to employee well-being and health that is truly holistic. And they will focus as much on making the work meaningful to their people, as they now do on ensuring their people are capable of the work.

Companies will seek out partners who can help them capitalize on these workplace trends. They will ask, "How can we help our employees feel more connected to this place, their work and our mission?" The successful among them will realize what a profound impact they can have on the quality of their employees' lives. And, as importantly, the tremendous return on investment that realization holds.

Research Methods

Rachel S. Permuth, PhD, MSPH

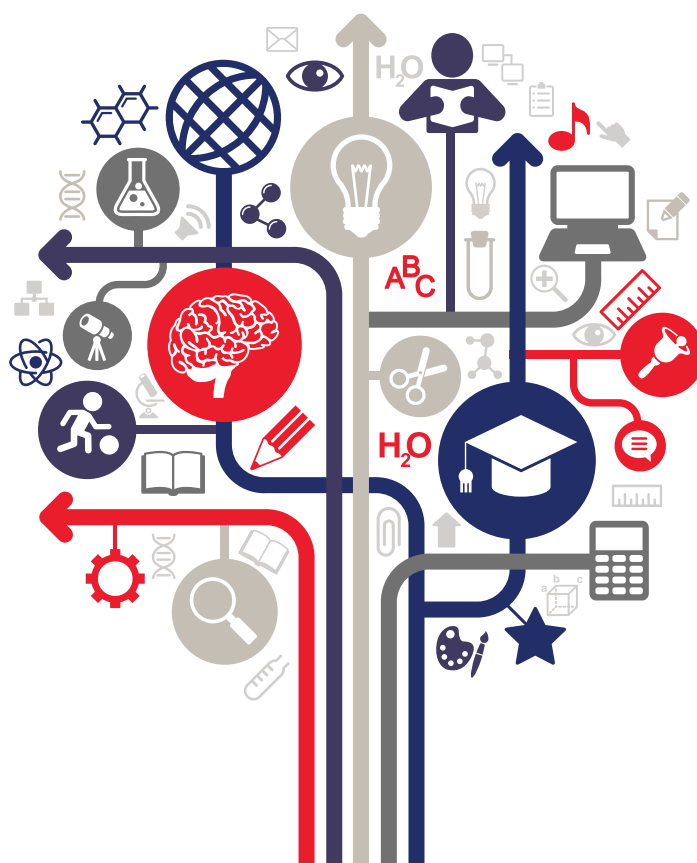
Kevin Rettle, FMP

Rebecca L. Scott, MPH

Sodexo's experts in quality of life and human capital solutions used mixed research methods to understand and highlight the trends that are affecting the workplace and its consumers. This approach included traditional quantitative measures, observations and interviews from over 1,000 client sites, as well as a robust bibliographic review of academic and trade journals within Human Resources, Organizational Psychology, Information Technology, Facilities, Real Estate and Hospitality. In addition, Sodexo collected interviews and reports from academic institutions and trade organizations alike, such as the American Psychological Association, the International Facilities Management Association (IFMA), CoreNet and Harvard.

Sodexo also reviewed select social media sites and other less-structured sources (e.g., LinkedIn, blogs) to gather additional data to substantiate our initial findings and conclusions. Finally, Sodexo worked with CoreNet Global to conduct primary research on today's workplace — specifically the concept of Workplace Experience® — in a survey of over 500 knowledge workers (please see Appendix for Workplace Experience: A Sodexo and CoreNet Global Survey Research Project). Survey respondents were asked to indicate the major trends driving the future of the workplace, and the changes and challenges their organizations anticipated as a result of these trends.

Based on our findings, in this year's report you'll find a diverse array of workplace and employee quality of life factors represented; these include trends related to the built environment, technological advances and the workforce. Each of the trends, by definition, has the ability to improve the quality of life of people and their communities. As one would expect, however, organizational commitment to its people — both on a professional and personal level — remains a central theme among all of our trends. With more employees viewing their work and life as one, it can only benefit an organization to become acquainted with the workplace trends that will engage and retain the workforce of 2014.





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TRENDS CATEGORIES



Workplace
Strategy



Well-being



Sustainability



Diversity

TRENDS AT A GLANCE

Employees: New Benefactors in the Experience Economy



The notions of “user experience” or “experience-centered design” are well-studied phenomena in industrialized countries, as experiences have long been a part of the entertainment business. Although today’s “Experience Economy” continues to focus on meeting ever-changing customer demands, a new and powerful benefactor has surfaced — the employee. With 54% of waking hours spent at work, the employee of the future expects to spend more time enjoying and benefiting from a series of memorable events and interactions that a company provides, which will engage him/her in an inherently personal way. They seek a more meaningful employment value proposition that can be achieved through the creation of contemporary experience environments.

Just like great customer experiences, great employee experiences — those that enable employees to support customers as they’re supposed to — don’t happen by accident. They have to be actively designed. Experiences are complex and involve many disciplines, environments, products, technologies, and more. Corporate Real Estate and FM leaders (CRE/FM) have a tremendous opportunity — not only to drive greater efficiencies, but to create a greater connection between the employee, the company and its customers along the way. Experience design within the context of the workplace environment and associated services requires new approaches, skills and capabilities for Corporate Real Estate and Facility Management leaders to embrace.

The Changing World of Wellness Regulation: Implications for Business



Workplace wellness programs — particularly programs that use financial incentives to encourage healthy behaviors by employees — have received significant attention recently. A number of events and trends have made these programs an important topic right now. With an increasing prevalence of chronic disease in the working-age population, employers are

interested in ways to encourage employees to live healthier lifestyles. Employers are also increasingly recognizing the potential benefits of wellness programs in terms of quality of life, employee productivity and health care costs. At the same time, there is a continuing debate about the effectiveness of wellness programs, and recent events have brought renewed attention to tensions in the design and operation of these programs and potential concerns about discrimination and privacy.

This leaves employers with a number of questions; while the answers are specific to each employer, this article seeks to help frame some of the issues and help employers understand current trends. It will provide context to some of the policy debate surrounding the programs, and also help employers know which questions to ask and how to think about the answers. Finally, this article seeks to help relate wellness programs to the broad array of changes occurring that aim to engage consumers and patients and encourage them to take a greater role in their health.

Preventing Information Overload in the “Always On” Workplace



Our love affair with smartphones, tablets, and other mobile devices makes it increasingly difficult for employees to disconnect from the office outside of normal work hours. In a recent survey by the American Psychological Association, more than half of employed adults said they check work messages at least once a day over the weekend, before or after work during the week and even when they are home sick. More than 4 in 10 workers reported doing the same while on vacation. In addition to enhanced productivity and flexibility, working adults reported that communication technology makes it easier for them to get their work done and nearly half indicated that it has a positive impact on their relationships with co-workers.

But being plugged in 24/7 is not without its challenges. More than one-third of employed Americans said communication technology increases

their workload and makes it more difficult to stop thinking about work and take a break. Although people are often given the advice to unplug in order to avoid the unhealthy effects of their hyper-connected lives, that doesn't necessarily require a complete "digital detox." Forward-thinking organizations are beginning to reevaluate their technology-related work practices and provide employees with resources that help them make effective use of information and communication technology, while avoiding the potential downsides.

Health-Centered Buildings: A Shifting Paradigm



From the perspective of public health, buildings must be designed to protect the health, safety and welfare of occupants. Going one step further, health-centered buildings not only protect occupants by "designing-out" potential hazards, but also emphasize how protective factors in the environment reduce susceptibility to injury and illness and promote overall well-being. This represents a paradigm shift from focusing on disease reduction to health promotion, emphasizing the World Health Organization's (WHO) definition of total health. In order to do this, we must study the effect of whole building design on harder-to-measure, whole person parameters such as well-being and productivity as well as the more traditional factors of indoor air quality (IAQ) and ventilation rate.

At the present time, building-related health issues focus largely on indoor air and the impact of materials, ventilation rates and maintenance in a reactionary approach toward illness symptoms. However, it is time to look much more closely at how our buildings affect human emotional functioning, social support and occupant stress. It is also time to expand our focus to include electric light, daylight, noise, views, connection to nature, and spatial factors that influence how people perceive, behave and cope with environmental stressors. This piece explores a multi-disciplinary, evidence-based conceptual framework that broadens the definition of health in buildings to address physical as well as mental, emotional and social factors.

"Smarter" Buildings: Raising Your Facility's IQ



While building automation systems have been around for decades, there have been significant changes in recent years because of technical advances in the field, an increase in demand for remote monitoring, and advancement in the way building owners and operators can access data. Despite the many advances in facility automation over the past few years, building owners and operators can still be resistant to the technology because they believe the perceived costs are too high, or there is a lack of common protocols or familiarity with qualified contractors.

With an increase in energy usage regulation and concern about environmental impact, the time has come for industries across the country — corporate, health care, education and government sectors — to consider facility automation, including remote monitoring and virtual energy management, as a vital part of an overall energy "smart" building. The global growth of building automation systems is estimated to double from \$72.5 billion in 2011 to \$146 billion by 2021, with building energy management in North America alone expected to grow from \$193 million in 2012 to \$402 million by 2015. This intersection of where technology and energy meet — where megabytes and megawatts converge — will be a major influencer in the way buildings are constructed and operated for years to come.

Gamification: Your "Win" to an Engaging Environment



"Gamification" covers the use of game mechanics outside of a purely gaming context. That means games at work, games to improve health, loyalty programs, serious games for training purposes and even software tools that "on-board" new users. Gamification offers a flexible set of tools and techniques that, put together in the right way, drive engagement — that sense of productivity, commitment and focus that great teams and long-term customers usually demonstrate.

TRENDS AT A GLANCE

Analyst firm Gartner predicts over 70% of Global 2000 companies will have at least one gamified application by 2014. Gamification and games at work can drive business success – companies across the globe have seen uplifts in sales, customer satisfaction and software adoption through the use of game mechanics appropriately woven into the work experience. Implementation, however, can be filled with pitfalls, because what works for some won't work for all. In this article, learn about the power of gamification, how it has been used, the real value it has derived, how to navigate past some of the classic pitfalls and how to get started reaping the benefits of gamification in your business today.

Exploring Cultural Nuances in a Global Workplace



One of the realities of today's workplace is the need for cross-cultural understanding in our increasingly global workplace. Whether you need to manage a diverse workforce that reflects a polyglot of cultures or nationalities under one roof or you find yourself crossing time zones to manage multiple locations in multiple countries, success for today's manager very often entails developing the facility to understand, appreciate and integrate a multiplicity of varied backgrounds, communications styles and cultural norms. Whether you are building your team, managing a worldwide supply chain, or marketing to an international clientele, cross-cultural understanding is an essential part of every modern manager's repertoire.

Developing not just the intellectual tools, but the emotional intelligence necessary to build trust and respect in a multi-cultural workplace is a complex and constantly evolving process, but success can bring substantial personal and organizational rewards. This article will explore some of the elements of cultural difference in the workplace, including: coping with differing modes of communication, reconciling disparate views of what constitutes work and work/life balance, building shared cultural references and shared historical experiences, and learning to not just

ignore, but to value and honor differences in dress, appearance and even expression.

VOI is the New ROI in Employee Rewards & Recognition



Creating and sustaining a high-performing workforce is the ultimate goal of modern human capital management. As career specialization becomes increasingly important and talent shortage looms globally, retaining human assets and engaging employees to contribute their full potential is vital to competitive success. This can at least partly be solved through a strategic approach to rewards and recognition. Formal rewards and recognition programs provide the most comprehensive platform to tailor incentives to organizational values, while fostering a culture of employee engagement that achieves business goals.

But as a growing number of organizations increase the use of these programs, a fundamental question arises: how should managers demonstrate the value of their programs to senior management? Usually the first response to this question is an attempt to measure ROI (Return on Investment), but leading companies are progressively realizing that the benefits of recognition programs go beyond short-term financial calculations. The emerging VOI (Value on Investment) framework proposes that intangible assets — which are an imperative for all kinds of organizations — be incorporated into value assessments. The key advantage of a VOI model is that it treats ROI as an equal input to less tangible metrics, providing managers with the ability to qualify and quantify the impact of recognition programs.

Total Worker Health™: A Holistic Perspective on Employee Well-Being



The alarming rise in employee health care costs in the U.S. has become a central issue in the corporate agenda due to the threat it represents to business sustainability and corporate America's bottom line.

Over the last 15 years, the total health benefits cost per employee has been growing consistently above overall inflation and worker earnings levels. Chronic diseases and workplace injuries are major drivers of runaway health care costs. These conditions are largely modifiable, and can be substantially prevented if a sound population health management strategy is adopted.

The workplace represents an ideal setting for the development of health enhancement programs, and growing evidence shows that health management strategies that integrate initiatives to promote and protect worker health may help minimize the economic and social burden associated with health problems. We define an integrated approach as a strategic and operational coordination of policies, programs and practices designed to simultaneously prevent work-related injuries and illnesses and enhance overall workforce health and well-being. Integrated worker health initiatives only deliver on their promise when supported by a business strategy with long-term visioning, leadership commitment, accountability systems and systematic management.

“Futureproofing” Your Organization



One of the most difficult challenges facing any organization and its leaders is balancing the time and effort spent on current operations with those dedicated to planning for the future. And in a world where uncertainty has been replaced with ambiguity and unpredictability, future-focused planning all too often feels like a waste of time. Why plan for a completely unknown future?

Yet if an organization wants to survive and thrive over the long term, anticipating and preparing for its future is absolutely essential. This piece offers several suggestions for getting started on “futureproofing” your organization. We first discuss the importance of thinking about tomorrow, and then highlight the absolute necessity of talking with colleagues, the staff at large and outside experts about what the future might hold, and how it could affect your organization.

We also identify several core business processes and practices that our experience suggests will help you get to the future, whatever shape it takes.

Creating Jobs of the Future: No Crystal Ball Needed — Plus 30 Jobs for 2030



We can think about our “jobs” as how we earn a living, how we spend our time, or how we find inspiration, but one thing is sure: the nature of jobs is changing along with the corporations, societies and other environments in which we work.

There are several approaches to creating future careers, including retrofitting (adding new skills to existing jobs) and blending (combining different jobs). One of easiest ways to begin thinking about future careers is to focus on what may be a problem in the future and invent a job that will solve it.

In this special section we’ll discuss these approaches and provide a list of 30 sample emerging job titles identified by a dozen leading futurists; we hope these ideas will stimulate your own thinking about the future and the jobs that may be needed in the decades ahead.

Employees: New Benefactors in the Experience Economy

Debra Dailey



A “COMMODITIZED” WORKPLACE?

No company wants the word “commoditized” applied to its goods or services, and certainly not to its place of work. While good pay, strong benefits and reward structures continue to be the mainstay for companies when striving to attract, retain and motivate top talent, we are beginning to see the need for “differentiated” value from the next generation of the workforce. Indeed, the convergence of several macro industry trends has increased the desire for something greater than the perceived value from today’s workplace services and benefits programs. Speed to innovate, the drive for more meaningful work and the elevated importance of quality of life have all played a role in this evolution.

Products and goods that evoke emotion through experiences are perceived to have greater value.

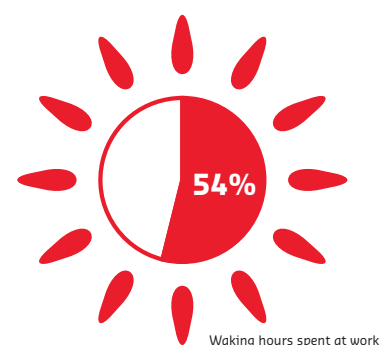
SHIFTING TO AN “EXPERIENCE ECONOMY”

The notions of “user experience” or “experience-centered design” are well-studied phenomena in industrialized countries. Experience Economy theorists Pine and Gilmore propose that those products and goods that are perceived to have greater value are those that have moved away from being commodities to those that evoke emotion through experiences.¹ UX (User Experience) design

is different from simple product design in that it takes a multi-disciplinary approach to create an emotional attachment to the product or service in order to make it more “sticky” or “appealing” so that the user will either purchase it again, recommend it to friends, or benefit from other outcomes associated with the particular entity.

Although today’s “Experience Economy” continues to focus on meeting ever-changing customer demands, a new and powerful benefactor has surfaced — **the employee**. With 54% of waking hours spent at work,² the employee of the future expects to spend more time enjoying and benefiting from a series of memorable events and interactions that a company provides, which will engage him/her in an inherently personal way. They seek a more meaningful employment value proposition that can be achieved through the creation of contemporary experience environments.

Just like great customer experiences, great employee experiences — those that enable employees to support customers as they’re supposed to — don’t happen by accident. They have to be actively designed. Experiences are complex and involve many disciplines, environments, products, technologies and more. Corporate Real Estate and FM leaders (CRE/FM) have a tremendous opportunity — not only to driver greater efficiencies, but to create a greater connection between the employee, the company and its customers along the way. Experience design within the context of the workplace environment and associated services requires new approaches, skills and capabilities for Corporate Real Estate and FM leaders to embrace. We will explore these concepts throughout the remainder of the trend.



A CONTEMPORARY VIEW OF EXPERIENCE THROUGH QUALITY OF LIFE

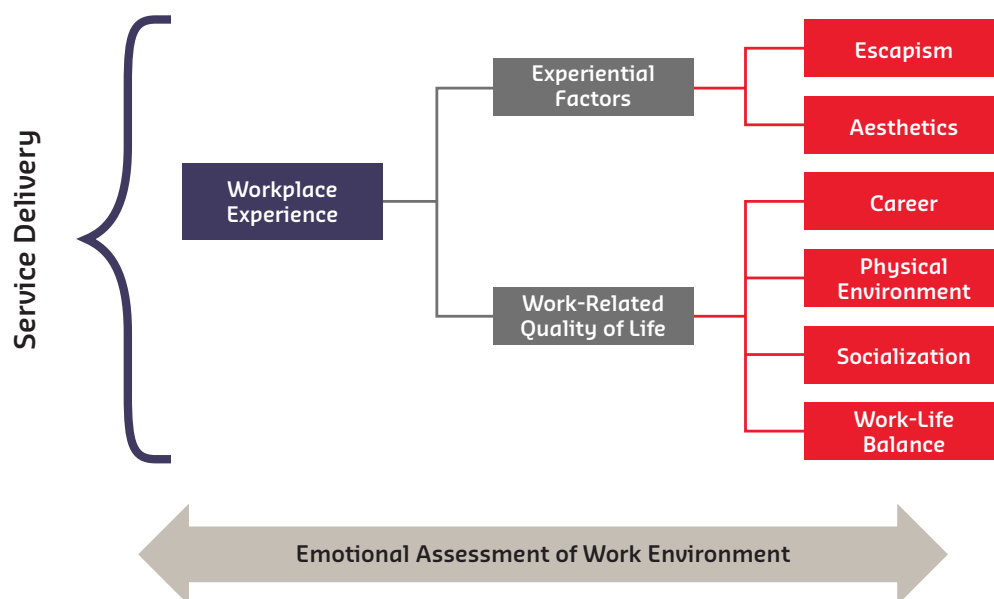
A recent Sodexo and CoreNet survey around workplace experience found that “customer/employee experience” was one of the most important issues facing the industry today, lagging only behind mobility and technology.³ Furthermore, 85% of survey respondents indicated that for their employer, creating a great Workplace Experience for employees is an “Important,” “Very Important,” or one of the “Most Important” objectives regarding organizational strategy as it relates to human capital. Yet 40% of respondents indicated the need for more research to understand how to create a better built environment to enhance employee quality of life; more than a third indicated the need for more research to understand what motivates employees.

While Experience Design is plentiful in technology and is gaining momentum with service delivery, there is almost no published research on creating better employee experiences within the workplace context. In spite of the lack of research, we do know that Quality of Life (QoL) is a contributor to one’s holistic experience. The most relevant research literature is that on Work-Related Quality of Life (WRQoL)⁴ and Workplace Well-being.⁵ In addition, the Experience Economy framework provides a great deal of insight into the component parts that help define any type of experience. From an environmental perspective, meaning the physical workplace/space, there is a significant body of research that focuses on work environments in the office setting, with measurable outcomes including job satisfaction, environmental satisfaction, and other health outcomes.⁶

Missing from the existing measures of work-related quality of life, however, is any mention of experiential elements. In response, a new Workplace Experience Model© was developed by Sodexo, revealing that experiential factors like aesthetics, elements of escapism, affective components, and other elements of a holistic end-to-end workday can — and do — enhance or detract from employees having a great experience (and optimal QoL) in the workplace.

The overarching themes of the Workplace Experience Model© are summarized in Figure 1 below:

Figure 1: Workplace Experience Model©⁷



The Workplace Experience Model is copyrighted. This work may not be copied, reproduced, or circulated without the express written consent of Sodexo, LLC.

EMPLOYEES

Most notably, the model highlights the component parts of Workplace Experience© and creates a distinction between experiential factors and work-related quality of life factors. The role of service delivery is emphasized, as workplace facilities and services can touch almost all of the sub-components of an experience, with the exception of certain career aspects (e.g., enjoyment of one's work, opportunities for promotion, etc.).

Also of note is the importance of one's emotional assessment of the workplace experience. Research based on customer motivations suggests that emotions are the key ingredient — they are what drive people to action.⁸ In fact, behavioral psychologists have long argued that only 30% of human decisions and behaviors are driven by rational considerations; the remaining 70% of the decision-making process is based on emotional factors.⁹ Since employees are the “customer” and recipient of real estate and workplace services, why wouldn't emotions also play a role in work-related outcomes such as employee motivation, drive and action? With this in mind, CRE and FM leaders are beginning to translate the emotional aspects of an experience to the workplace setting, and they are also developing new evaluation tools to measure the impact.

This model has many implications on workplace performance measures, particularly those that go beyond typical outcomes related to employee satisfaction, engagement and productivity. Implications include:

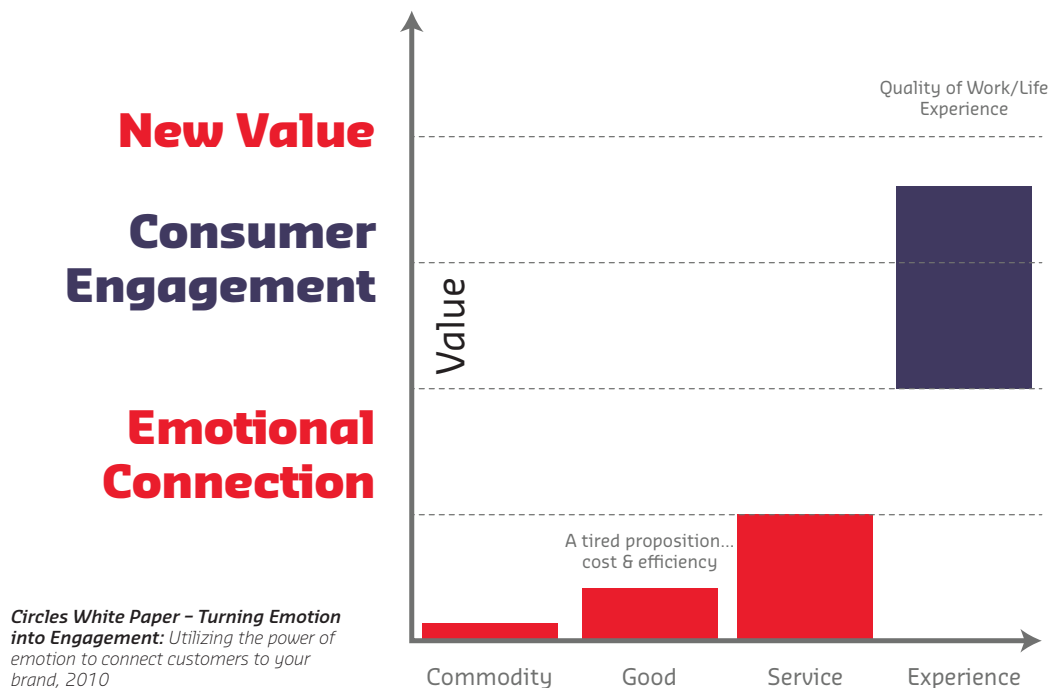
- Shifting the measure of value from “cost per square foot” to “quality of life per square foot,” a value that has much more meaning and potential to impact employees and the organization in unprecedented ways — not only by improving quality of life, but also by creating memorable moments that result in stronger emotional ties to the employer.
- Workplace professionals can infuse elements of aesthetics, escapism, entertainment and much more in the workplace environment to improve quality of life.

More importantly, the value of such an approach lies NOT within each of the individual components, rather in the systematic perspective it takes to understand a more holistic view of people and their experience.

NEEDED... DESIGNERS OF EXPERIENCE

The notion of CRE/FM applying these findings in order to create great employee experiences will be embraced more frequently in order to deliver greater value to the enterprise. A recent Futures Forum Report stated that creating great customer experiences “Requires a service that rises far above the ‘humdrum’ norm and is continually enhanced with new ideas and components that exceed expectations and delight the customers.”¹⁰ The report continues to share an additional challenge with CRE/FM in that most of the customers of workplace services do not have a choice over what to purchase and have to make do with what they are given, perhaps creating a higher level of skepticism from the outset than is normal. Despite this obstacle, more and more industries are recognizing that creating an experience does, in fact, lead to improved consumer engagement and ultimately new value and increased financial returns (see Figure 2).

Figure 2: Re-Thinking Value through New Experiences¹¹



Of importance, industries are beginning to understand the complexity around designing experiences and as such, have shifted their perspective and practices to support their development. These practices include:

- Enhanced methods to uncover motivations, thoughts, emotions and behaviors.
- Interactive design methods, activities and tools that enable the ability to craft the definition and orchestration of the experience. Activities include journey mapping, blueprinting, concepting, and prototyping.¹²
- Bringing in new talent and leadership, including the addition of a Chief Experience Officer and/or a team of Experience Designers.

CRE/FM leaders will begin to follow suit as they take more ownership over the development of experience environments.

DEFINING NEW CHALLENGES AND DESIGN THINKING WILL DRIVE GREAT EMPLOYEE EXPERIENCES

Today's CRE/FM "customers" place a high priority on experience, and there is a need for the organization to better understand what might constitute this experience. Yet there is a gap between current CRE/FM processes and their ability to define the right organizational and end-user challenges to design and improve the workplace experience. Today's CRE/FM processes tend to support supply-centric fulfillment of a product or service, resulting in limitations that hinder innovation and the ability to solve for complex organizational issues. Tomorrow's process will be focused on solving for complex human needs and the relationship between the environment, behavior and well-being.

Corporate Real Estate and Facility Leaders who begin to adopt a “design thinking” approach through deeper uncovering and understanding of end-user needs will view challenges much differently. For example, IDEO, a leading innovations consulting firm, is taking this concept to a completely new level, drawing upon the ideas, optimism and opinions of a global community to identify and solve complex social problems.¹³ A similar approach can be used within the CRE/FM industry, but it starts with the ability to move beyond talking about “what” services should be provided to “why” those services should be provided and the outcomes they might affect. This shift in thinking can extend to service proposals in order to unlock different types of value.

For example, a typical request for services might look something like this:

- Provide Meeting Room Management Services
- Deliver Environmental and Cleaning Services
- Improve Pantry Service

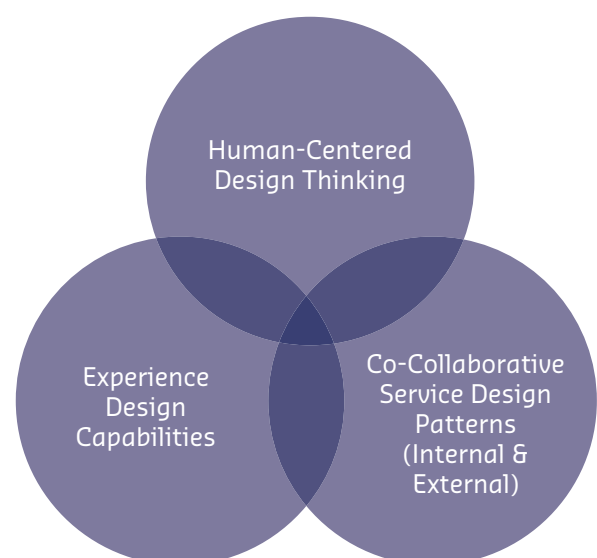
New “Design Thinkers” within the CRE/FM team will view outsourcing vendors as partners, whose value lies in the ability to co-create the new experience environment. The aforementioned CoreNet survey found that knowledge workers, in particular, are seeking environments that are flexible, collaborative, open, comfortable, engaging, productive, efficient, fun, energetic and supportive, among other things. With this in mind, outsourcing proposals will be framed more as organizational and employee challenges that need to be solved in order to drive greater value through experiences, such as:

- How might we enable the capacity for greater creativity amongst our employees?
- How might we create a workday without a million annoying distractions?

Solving for these types of challenges, however, will require the orchestration of many disciplines, service providers and products. An inclusive approach to the workplace experience design process — whereby the end-user all the way up to the C-suite is involved in the process — will ensure that the needs of all stakeholders are being met. Furthermore, taking an integrated approach to both the design and implementation of the workplace experience will ensure that the results are cohesive. There truly is inherent value in creating an aligned vision through cross-disciplinary teams and outsourcing vendor partnerships, because they provide different perspectives on problems and strategies that maximize efficiencies.

In sum, a new set of skills and practices will be implemented in order to drive innovation within CRE/FM (see Figure 3). The convergence of human-centered design thinking, experience design capabilities and co-collaborative service design partnerships will result in market differentiation and innovation within CRE/FM.

Figure 3: New Skills and Practices within CRE/FM



CONCLUSION

The services and value provided by today's CRE/FM industries are at risk of being "commoditized," placing further risk to the organization in its bid to attract, retain and motivate tomorrow's top talent. Learning to think about experience environments in the context of delivering greater value and improved quality of life to the individuals served can drive the momentum needed to change the conversation from cost to value.

Yet, experiences are complex and developing great ones requires a shift in perspective and practice. As a result, the CRE/FM industry will be pushed to bring to the table a completely new set of skills, capabilities and expertise. The following initial steps can be used as a foundation to move forward:

- Use the Workplace Experience Model© as a foundation to deliver value.
- Spend more time developing the right organizational "challenge."
- Bring in experts who understand experience design and can provide the tools and methods necessary to deeply understand both end-user and consumer needs.

With the continued transformation around today's working arrangements, in this year as well as in coming years, it will be important to consider your organization's workplace experience — and whether it detracts from or enhances your employees' ability to be optimally productive and engaged.

KEY INSIGHTS:

- *In today's "Experience Economy" a new and powerful benefactor has surfaced — the employee. Successful organizations must focus on employee experiences just as customers.*
- *Experience design within the context of the workplace environment will require new approaches, skills and capabilities for Corporate Real Estate and FM leaders.*
- *Sodexo has developed a new model that highlights the component parts of Workplace Experience© and creates a distinction between experiential factors and work-related quality of life factors.*
- *The concept of workplace experience is part of the growing movement to shift the measure of value from "cost per square foot" to "quality of life per square foot," a value that has much more meaning and potential to impact employees and organizations.*



EFFICIENT



COLLABORATIVE



PRODUCTIVE



ENGAGING



SUPPORTIVE



OPEN



FLEXIBLE



COMFORTABLE



ENERGETIC

IN A RECENT STUDY CONDUCTED BY SODEXO, 500 PEOPLE STATED

A GREAT **WORKPLACE**
EXPERIENCE IS...

The Changing World of Wellness Regulation: Implications for Business



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INTRODUCTION

Workplace wellness programs — particularly programs that use financial incentives to encourage healthy behaviors by employees — have received significant attention recently. In a recent survey, 86 percent of employers surveyed indicated that they currently offer wellness-based incentives, an increase from 73 percent in 2011.¹

A number of events and trends have made these programs an important topic right now. With an increasing prevalence of chronic disease in the working-age population,² employers are interested in ways to encourage employees to live healthier lifestyles. Employers are also increasingly recognizing the potential benefits of wellness programs in terms of quality of life, employee productivity and health care costs. At the same time, there is a continuing debate about the effectiveness of wellness programs, and recent events have brought renewed attention to tensions in the design and operation of these programs and potential concerns about discrimination and privacy.

This leaves employers with a number of questions:

- Should I offer a workplace wellness program at all? What are the potential advantages to the employer and to the employees?
- How can I structure an incentive-based wellness program to comply with federal regulations?
- What are some of the issues I should consider in structuring a wellness program to encourage healthy behavior, while remaining respectful of my employees' autonomy and privacy? How do I frame the program in a way that ensures that employees appreciate the value of the program?

While the answers to such questions are specific to each employer, this article seeks to help frame the issues and help employers understand some current trends. It will provide context to some of the policy debate surrounding the programs, and also help employers know which questions to ask and how to think about the answers. Finally, this article seeks to help relate wellness programs to the broad array of changes occurring that aim to engage consumers and patients and encourage them to take a greater role in their health.

This article focuses particularly on incentive-based programs — wellness programs that provide incentives (either in the form of a reward or a penalty) to individuals to encourage healthy behaviors. These types of programs raise unique issues with regard to regulations, employee autonomy and effectiveness.

POTENTIAL BENEFITS OF WORKPLACE WELLNESS PROGRAMS

There are typically two initial questions regarding workplace wellness programs:

1. What are the potential benefits of such programs?
2. How effective are the programs at achieving these benefits?

WELLNESS REGULATION

Advocates of wellness programs have cited their potential benefits to employees, employers and society in general. Some of the key benefits cited include:

- **Improved health:** The American Heart Association has stated that “workplace wellness programs are an important strategy to prevent the major shared risk factors for cardiovascular disease and stroke...,” while also noting that 20 to 30 percent of employers’ health care costs are spent on employees with risk factors targeted by wellness programs.³
- **Decreased costs:** In 2009, Steven A. Burd, CEO of Safeway Inc. and the founder of the Coalition to Advance Healthcare Reform, wrote an article⁴ describing the success of Safeway’s wellness initiative, noting that, from 2005 to 2009, Safeway had been able to keep its health care costs flat, while most American companies saw costs rise by 38 percent. Safeway’s success was lauded by politicians, and Mr. Burd’s claims and subsequent testimony to Congress were cited as a major impetus behind the provisions in the ACA allowing for larger penalties and rewards under workplace wellness programs.⁵
- **Increased productivity and efficiency:** The potential for increased employee productivity and efficiency seems to be a powerful motivator for employers providing wellness programs. A recent survey of employers found that four fifths of employers offering wellness programs believed that their programs decreased absenteeism and increased productivity.⁶
- **Improved Quality of Life:** Proponents argue that wellness programs can increase quality of life, both in and out of the workplace. A recent white paper by Health Advancement Systems asserts that improving quality of life should be the primary focus of workplace wellness programs. The white paper notes that programs that focus on quality of life can also help facilitate other benefits, such as increased employee productivity and decreased costs.⁷

The Key Question: Do the Programs Actually Provide the Promised Benefits?

Although proponents cite these and other benefits of workplace wellness programs, there has also been significant debate about whether wellness programs are effective at meeting these goals.

As noted above, the reported success of Safeway’s workplace wellness program at holding down health care costs was a major impetus for many of the wellness provisions of the ACA. However, not all critics agree that the benefits of the Safeway experience are clear. Some have noted that Safeway’s cost savings could seem to begin in 2005, while the incentive program itself only went into effect in 2008 — indicating the possibility that other factors may have been primarily responsible for keeping costs down.⁸

In March of 2013, several scholars published a study in the prominent health policy journal *Health Affairs*,⁹ suggesting that even if wellness programs cut costs for employers, they may not cut overall health care costs. Rather, the authors argue, wellness programs may save employers money by shifting costs to certain vulnerable employees. The article set off a round of arguments and counterarguments on the *Health Affairs* Blog regarding the effectiveness of wellness programs.¹⁰

While commenters have had various views and opinions about the effectiveness of wellness programs, there seems to be general agreement among most (although not all) commenters that employers should take a role

in the health and well-being of workers, such as by creating a healthy working environment and by supporting employee efforts to adopt and maintain healthy behaviors as part of the corporate culture.¹¹ At the same time, some commenters have expressed concern over whether employer involvement in these programs risks intruding on the personal lives of employees. Furthermore, it has been argued that even if it is not possible to demonstrate conclusively a financial return on investment to the employer or employee from the program, other factors more difficult to measure, such as increased employee quality of life, may be a strong reason for implementing the programs.¹²

CHANGES IN THE REGULATION OF WORKPLACE WELLNESS PROGRAMS

One driver of the increased attention to incentive-based wellness programs is that the ACA has made changes to how these programs will be regulated beginning in 2014. The new regulations largely build on existing rules with which employers are familiar, but they also make important changes.

Background: Wellness Programs and Non-Discrimination

Wellness programs have long been subject to regulation to ensure that the incentives provided do not create a framework that discriminates against individuals based on health status. For example, under rules published in 2006,¹³ any wellness program where a condition for receiving a reward is that an individual must satisfy a standard that is related to a health factor (called a “health-contingent wellness program”) must satisfy certain standards. For example, any reward was required to be made available at least once per year, and the program itself had to be “reasonably designed” to promote health. Two standards in particular are important — as they are the subject of the recent changes: first, the rules restrict the size of any financial reward provided by a wellness program; second, the rules require plans to provide a “reasonable alternative standard” (“RAS”) by which an individual may qualify for a reward in certain situations.

The Maximum Size of a Reward

Under the pre-ACA rules, where the receipt of a reward was based on an individual satisfying a standard related to a health factor, the amount of the reward could not exceed 20 percent of the total cost of coverage.¹⁴ The purpose of this rule was “to avoid a reward or penalty being so large as to have the effect of denying coverage or creating too heavy a financial penalty on individuals who do not satisfy an initial wellness program standard...”¹⁵

The ACA increased the amount of a potential reward from 20 percent to 30 percent of the total cost of coverage, and gave regulators the discretion to allow rewards of up to 50 percent in the case of a program designed to prevent or reduce tobacco use.¹⁶ Thus, individuals could have much more at stake when they participate in a program under the new rules. As noted above, one of the key impetuses for this change was the increased interest in wellness programs following the apparent success of such programs at Safeway and elsewhere.

The rules restrict the size of any financial reward provided by a wellness program; second, the rules require plans to provide a “reasonable alternative standard” (“RAS”) by which an individual may qualify for a reward in certain situations.

Thus, individuals could have much more at stake when they participate in a program under the new rules.

WELLNESS REGULATION

Reasonable Alternative Standards

Another change made by the ACA regulations was to broaden the range of individuals for whom an RAS must be provided. The specific rules regarding providing an RAS depend on whether the wellness program is considered an “activity-only program” or an “outcome-based program.”

An **activity-only program** is a program that requires an individual to perform an activity related to a health factor in order to obtain a reward, but does not require the individual to attain or maintain a specific health outcome—examples of these include walking, diet, and exercise programs.¹⁷ For activity-only programs, the program must provide an RAS for any individual for whom it is either unreasonably difficult due to a medical condition to meet the standard, or for whom it is medically inadvisable to attempt to satisfy the standard.¹⁸ For example, a pregnant employee might be provided an RAS if her physician determines that it is medically inadvisable for her to participate in a walking program.

Outcome-based programs are programs that require an individual to attain or maintain a specific health outcome (such as not smoking or attaining certain results on biometric screenings).¹⁹ For these programs, an RAS must be provided to a much broader group of individuals. Plans will be required to provide an RAS to any individual who does not meet the initial standard, regardless of the individual’s medical condition or health status.²⁰ Furthermore, if the RAS is itself an outcome-based standard, the individual must be given the opportunity to comply with the recommendations of his or her personal physician as an alternative.²¹

POLICY TENSIONS AND OPEN QUESTIONS

The regulations described above reflect a number of policy tensions regarding incentive-based wellness programs.

Non-Discrimination vs. Strong Incentives

One of the most important concerns with regard to the regulations has been how to balance non-discrimination with strong incentives. On one side, both existing laws and the ACA contain policies intended to prevent discrimination against individuals because of their health status — a goal that could be undermined if a wellness program provided bonuses or penalties tied to an individual’s underlying health. On the other side is one of the fundamental concepts behind wellness programs — the idea that individuals who make healthy lifestyle decisions should be rewarded, and the related concern that incentive programs must have enough “teeth” to actually encourage healthy behavior.

The rules prior to the ACA tried to strike this balance in a number of ways. They limited the amount of any award to 20 percent of the cost of coverage, they required that the program be reasonably designed to promote wellness and significantly, they required that an RAS be provided to individuals for whom meeting the initial standard is unreasonably difficult or inadvisable due to a medical condition.

The ACA rules increase the potential amount of any reward from 20 to 30 percent (which would shift the balance in favor of stronger incentives), but the rules also require that outcome-based programs provide broad availability of an RAS to individuals who fail to satisfy the initial standard. There has been debate about whether this broad availability of an RAS limits the ability of programs to incentivize healthy behavior.



In comments to the regulators' initial proposal to broaden the RAS, the U.S. Chamber of Commerce expressed concern that the rules went too far. The requirement is so broad, the Chamber argued, that it:

Requires that such programs impose a standard that no individual can fail to meet, or that there be a "backdoor" through which any individual may pass... Wellness programs should not be required to coddle apathetic participants and the Proposed Rule's pursuit of an "everybody wins" approach will thwart the very motivation that a rewards-based program is designed to create.²²

In contrast, Families USA, a consumer advocacy organization, supported broadening the RAS, arguing that the rules provided protection against potential discrimination:

We strongly support the clarifications made in this proposed rule regarding the requirements to offer a reasonable alternative standard. We agree that plans should be responsible for furnishing an alternative standard to eligible individuals and that plans should not be allowed to cease to provide a reasonable alternative standard to an individual just because that individual was not successful at modifying his/her behavior in previous attempts.²³

Employee Privacy

Because wellness programs may involve requiring information about a person's health and personal practices, another concern that has drawn significant attention in recent months is employee privacy. Recently, Penn State University received national attention after a reported backlash from employees for introducing a program which included a requirement that employees participate in a health risk assessment through an outside company. *The New York Times* reported that the assessment

"asked employees for intimate details about their jobs, marital situation and finances. It also asked female employees whether they planned to become pregnant over the next year."²⁴ Employees' concerns that the university would obtain their private health information and the reported intrusiveness of the questions ultimately contributed to the university removing the penalty for noncompliance just a few weeks after introducing it.²⁵

CONSIDERATIONS IN DESIGNING WELLNESS PROGRAMS

The regulations and policy tensions discussed above have implications for how employers choose to structure wellness programs. This section provides an overview of some of the more common options faced and how some of the above tensions reflect on those options.

Design of the Program and Behavioral Insights

One trend that is emerging with respect to these programs is greater attention to the design of incentives that may be used in a program. Research on behavior can provide insights into the timing, the form and the messaging around incentives. For example, it has been pointed out that efforts to effectively encourage new behavior must address motivation, behavior, and ability in combination.²⁶ Additionally, individuals tend to be more influenced by immediate benefits than delayed benefits.

To effectively change behaviors, workplace wellness programs must address a combination of motivation, behavior, and ability.

WELLNESS REGULATION

Thus, it has been argued that programs should provide “small but tangible and frequent positive feedback or rewards,”²⁷ rather than less frequent rewards. This idea is supported by research suggesting that long-term premium discounts may be a less effective incentive than more visible and salient rewards.²⁸

These same behavioral insights can provide insight into the messaging used to encourage participants. For example, positive messages that point out the near-term quality-of-life benefits of healthy behaviors may be more effective than negative messages that warn of the long-term effects of unhealthy behaviors.²⁹

Rewards vs. Penalties

A core element of a workplace wellness program is whether the incentive takes the form of a reward or a penalty. There is little data on whether reward or penalty programs are ultimately more effective.³⁰ The state of Oregon was able to find success in their program by charging \$17.50 per month if state teachers and public employees did not take a health risk assessment and follow through on the assessment’s recommendations.³¹ Other penalty-based programs, such as the Penn State program, have not met the same success.³²

\$17.50
per month for not taking an HRA

Obtaining employee input and “buy in” is essential when designing a workplace wellness program.

Perception of the Program by Employees

As the Penn State experience shows, another potentially important factor is employee “buy in” — obtaining the input and acceptance of employees about the program and its design.³³ The design of the program can have an important effect on how it is perceived by participants. In the case of Penn State, some faculty members were reported to say the structure of the program, resulting in \$100 per month being deducted from their pay for noncompliance, went too far in contrast to similar programs.

Wellness Programs in an “Exchange” Environment

One trend that could either complicate or provide new opportunities for wellness programs is the increasing use by employers of private health insurance exchanges.³⁴ A recent analysis by the consulting firm Accenture estimated that, by 2018, 40 million Americans could be enrolled in coverage through a private exchange.³⁵ Through these exchanges (offered by private organizations), employers typically provide employees with “defined contributions,” pegged to a benchmark plan, which the employees can use to purchase their choice of coverage from among a number of plans offered by the Exchange — potentially including plans from several different insurers or a single insurer. Such exchanges are viewed as potentially providing employees with greater choice and encouraging employees to take a stronger stake in choosing coverage that best meets their needs and in assessing how and from where they access care.

The interaction of private exchanges and wellness programs is likely to be an issue to watch. It has been argued that employers who are less involved in the administration of a health plan (as might be the case when an employer utilizes an exchange) may be less inclined to see employee wellness as being their responsibility — particularly if participation in the exchange insulates the employer from changes in premium costs.³⁶

Additionally, there is concern that, when wellness programs are provided in the context of exchanges, employers and health plans may not have the same level of access to aggregated health data that can be used to maximize wellness programs.³⁷

That said, some employers, such as Walgreens, have continued to provide wellness programs even after moving their employees into a private exchange.³⁸ Moreover, some believe exchanges may also create an opportunity for new structures for wellness programs. Exchanges could provide a platform for the offering of these programs, and work to integrate wellness program and benefit design.³⁹

CONCLUSION: PLACING WELLNESS PROGRAMS IN A BROADER CONTEXT

Workplace wellness programs are becoming increasingly common. These programs present employers with a range of potential options for lowering health care costs while improving the health of workers. As employers consider these options, it is important for them to be aware of some of the policy, regulatory and legal issues surrounding wellness programs.

It is also important to understand the role these programs play in relation to other efforts to transform the health system. It has been pointed out that workplace wellness programs reflect a broader trend of emphasizing prevention.⁴⁰ In addition, there has been significant interest recently in engaging consumers and patients to take a more active role in their health and in seeking value from the health care system, such as programs aimed at increasing price transparency and developing benefit designs that encourage consumers to access care that is supported by evidence and offered from high-performing providers. Wellness programs complement these broader efforts and also provide employers an opportunity to encourage behaviors that can lead to a better performing and more cost-effective health care system.

KEY INSIGHTS:

- *Advocates of wellness programs have cited a number of potential benefits for employees and employers, including improved health, decreased costs, increased productivity and efficiency, and improved quality of life.*
- *There are two important standards for wellness programs that are the subject of the recent changes outlined in the ACA: first, the rules restrict the size of any financial reward provided by a wellness program; second, the rules require plans to provide a “reasonable alternative standard” (“RAS”) by which an individual may qualify for a reward in certain situations.*
- *The new regulations reflect a number of policy tensions regarding incentive-based wellness programs, including how to balance non-discrimination with strong incentives and concerns over employee privacy.*
- *When designing workplace wellness programs, research on behavior can provide insights into the timing, the form and the messaging around incentives. Obtaining the input and acceptance of employees about the program and its design is also essential.*

The views presented here reflect those of the authors and not necessarily those of their clients or any organizations with which they are affiliated.

Preventing Information Overload in the “Always On” Workplace



David W. Ballard, PsyD, MBA

Our love affair with smartphones, tablets and other mobile devices makes it increasingly difficult for employees to disconnect from the office outside of normal work hours. While this has the potential to negatively affect well-being and job performance, in a recent survey by the American Psychological Association,¹ a majority of working Americans said communication technology also allows them to be more productive and gives them added flexibility.



More than half of employed adults said they check work messages at least once a day over the weekend, before or after work during the week, and even when they are home sick. More than 4 in 10 workers reported doing the same while on vacation. In addition to enhanced productivity and flexibility, working adults reported that communication technology makes it easier for them to get their work done and nearly half indicated that it has a positive impact on their relationships with co-workers.

More than half of employed adults said they check work messages at least once a day over the weekend, before or after work during the week, and even when they are home sick.

But being plugged in 24/7 is not without its challenges. More than one-third of employed Americans said communication technology increases their workload and makes it more difficult to stop thinking about work and take a break. Although people are often given the advice to unplug in order to avoid the unhealthy effects of their hyper-connected lives, that doesn't necessarily require a complete “digital detox.”

Forward-thinking organizations are beginning to reevaluate their technology-related work practices and provide employees with resources that help them make effective use of information and communication technology, while avoiding the potential downsides.

ORGANIZATIONAL ISSUES

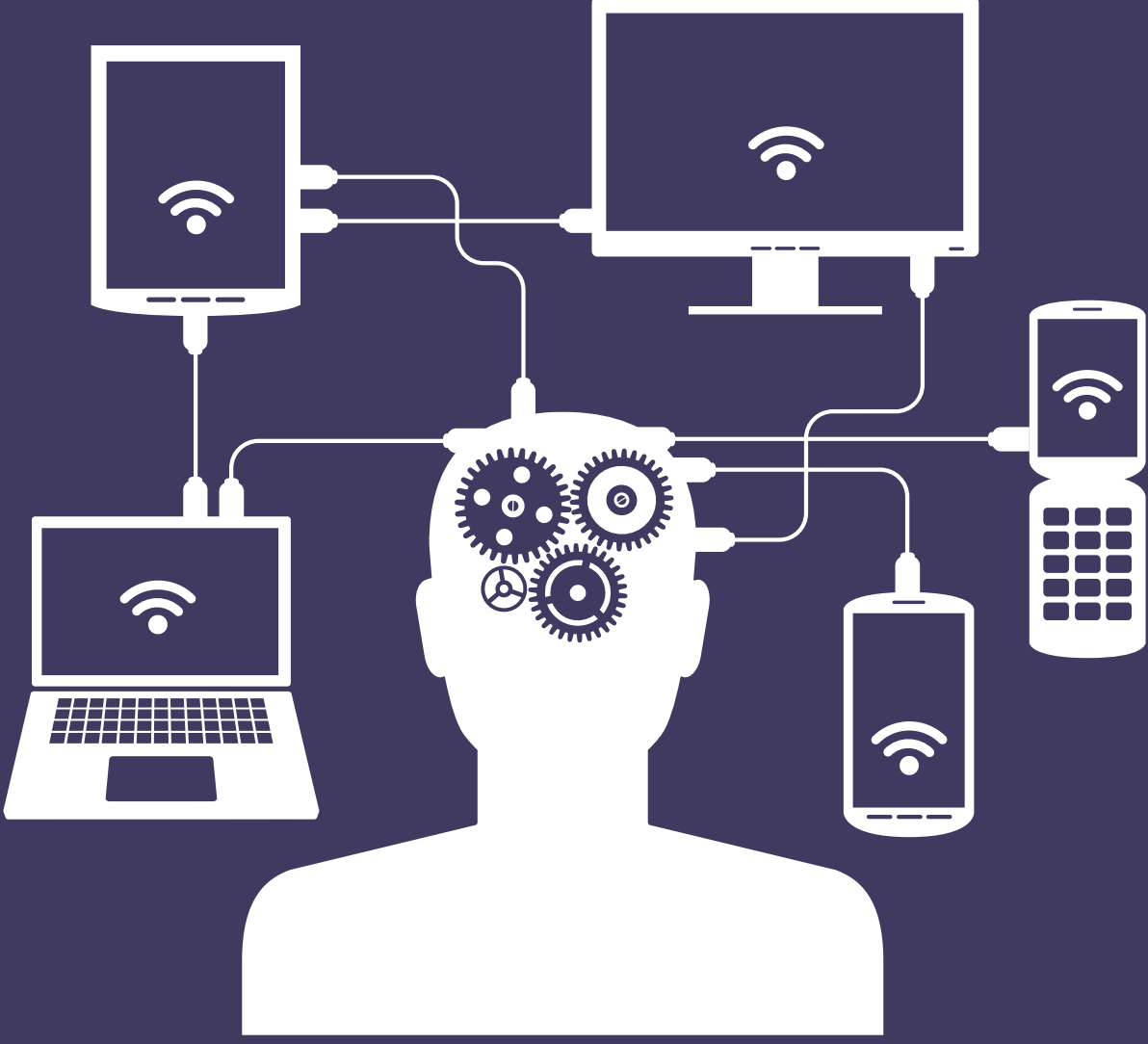
As employers grapple with the ever-changing technology landscape and its implications for work and well-being, they need to consider the way their workplace practices, norms and expectations shape the way employees use communication technology.

36% increased distractions

23% work/life conflict

30% intrudes on personal time

35% no/less breaks



ALWAYS ON

56% increased productivity

36% better work/life balance

49% improved work relationships

53% increased flexibility

PREVENTING OVERLOAD

Technology as a stressor. By automating routine tasks, giving us easy access to information and removing barriers to communication, technology is designed to make us more effective and efficient. In this “utopian world,” these tools free us to put our time and energy to more creative, productive, and meaningful use. That is, until we awaken to the reality of system failures, equipment malfunctions and network errors. Add to that the pressure to work faster and be more productive the need to stay up-to-date on the latest technology, information overload from hundreds of daily e-mails, and constant interruptions as new messages pour in, the benefits of these technologies can be quickly eroded.

Don't let the very tools that are supposed to help employees get the job done hinder their ability to achieve goals and cause anger, frustration and job stress. Fix your information technology problems, provide high-quality support services, select solutions that are user-friendly, and plan new system and software rollouts carefully, so technology is part of the solution, rather than part of the problem.

Understand your workforce. Before you jump straight to providing technical training, start with a good understanding of employees' attitudes about communication technology. Use employee surveys, small group meetings, and one-on-one conversations with managers to assess the degree to which employees feel confident in their ability to master new technologies and use existing tools effectively. Similarly, getting a read on their underlying beliefs about the technologies your

organization uses can help you plan more effective communications and training. For example, if employees think the tools are overly complicated, intrusive, time-wasting, or too impersonal, unearthing these beliefs can help you address barriers to effective technology use and build employees' feelings of self-efficacy.

Examine your culture. With few exceptions, it's unlikely that you have explicit policies that require employees to be “on call” and responsive at all hours. However, the norms and expectations that exist in your organization may be functioning as a set of unspoken rules that promote an always-on mentality. Does a “good” employee respond to an e-mail from the boss within minutes, even in the evenings and on weekends? Do managers expect employees to be available at their beck and call? What behaviors get highlighted as desirable or undesirable when it comes to availability and response time and what actions get rewarded? Are organizational leaders, who may be more likely to put in long hours and stay connected to the office outside of normal business hours, inadvertently communicating through their actions that they expect their employees to do the same?

These norms and expectations may be adding to employees' stress levels and preventing them from having the necessary recovery time to perform at their best. In addition to examining the assumptions that may be operating below the surface in your organization and taking steps to address any dysfunctional elements, managers and work teams should explicitly discuss their expectations when it comes to the use of information and communication technologies.

Good intentions gone bad. Some organizations are aware of the problems that constantly being plugged in can cause for employees and the organization alike and force employees to disconnect. Through either voluntary or mandatory e-mail blackouts, these employers effectively shut off e-mail after hours. Although designed to

The norms and expectations in your organization may be functioning as a set of unspoken rules that promote an “always on” mentality.

“protect” employees, this type of paternalistic approach may inadvertently cause more stress by reducing the flexibility employees have in how, when and where they work, decreasing the amount of control they have over their work environment, and preventing people from working in ways that are the best fit for their personal needs and preferences.

A more effective approach is to communicate the importance of recovery time and help employees develop healthy habits when it comes to their use of information and communication technology. By ensuring that the workforce is equipped with the skills necessary to recover from work stress, avoid burnout and minimize work-life conflict, employers can buffer themselves from the associated damage to engagement and productivity and benefit from the value technology can bring to the workplace.

CONCLUSION

In the end, our computers and mobile devices are just tools. By taking a thoughtful approach to how we use them, information and communication technologies can enhance our lives by helping us achieve our individual and collective goals, connecting us to others and helping us to be healthier, happier and more productive.

KEY INSIGHTS:

- *While communication technology allows employees to be more productive and gives them added flexibility, it has the potential to negatively affect well-being and job performance.*
- *Organizations are beginning to reevaluate their technology-related work practices and provide employees with resources that help them make effective use of information and communication technology, while avoiding the potential downsides.*
- *By ensuring that the workforce is equipped with the skills necessary to recover from work stress, avoid burnout, and minimize work-life conflict, employers can buffer themselves from the associated damage to engagement and productivity and benefit from the value technology can bring to the workplace.*

PREVENTING OVERLOAD

7 COMMUNICATION TECHNOLOGY TIPS FOR STAYING FULLY CHARGED

Stop multitasking. In an effort to be more productive and juggle the multiple demands they face every day, people fool themselves into believing they are great multitaskers. In reality, this amounts to nothing more than a frequent shifting of attention that is further exacerbated by the chirping tweets, pinging text messages and chiming e-mail alerts that distract us from the task at hand. Research suggests that we actually get less done, miss more information and make more mistakes when we multitask. So, eliminate distractions, turn off push notifications and alerts for all but essential communication channels and give what you are doing your full attention.

Take short breaks. Stay energized and productive by taking a minute or two periodically throughout the day to stand up, stretch, breathe deeply and shake off the accumulating tension. Short breaks between tasks can be particularly effective, helping you feel like you've wrapped up one thing before moving on to the next. Take a 10–15 minute break every few hours to recharge and avoid the temptation to work through lunch. The productivity you gain will more than make up for the time you spend on break.

Set boundaries. Communication technology can enhance your productivity, but it can also allow work to creep into family and personal time. Set rules for yourself, such as turning off your cell phone during meal times, or establishing certain times when you return calls or respond to e-mails. Although people have different preferences when it comes to how much they blend their work and home life, creating some clear boundaries between these realms can reduce the potential for work-life conflict.

Manage expectations. Be sure to communicate your rules to others, so you can manage their expectations. If you don't intend to respond to e-mails at all hours of the night, make sure your boss knows that. If you are on your work e-mail all weekend, people will come to expect an immediate response and you may feel pressured to act accordingly. Let technology be a tool that works for you, rather than the other way around.

Turn off and tune in. The world is full of distractions that prevent us from living in the moment. By learning to better focus on the present, you can improve your attention and concentration, reduce your stress level

and be more engaged in all aspects of your life. Start by putting away your smartphone for a few minutes each day and focusing on a simple activity like breathing, walking, or enjoying a meal. The skill of being able to focus purposefully on a single activity without distraction will get stronger with practice and you'll find that you can apply it to many different aspects of your life.

Break bad habits. Do you fill every empty moment of the day by crushing virtual sweets, slicing pixelated fruit, or launching feathered friends from slingshots? When was the last family meal you had where people actually made eye contact? Can you sit through a meeting or have an extended conversation with a colleague without checking your friends' status updates? Habits form through repetition and become stronger and more automatic over time. Our technology habits are no exception and you may even find yourself whipping out your smartphone and scrolling down to refresh a page before you even realize you're doing it. Work to identify your unhealthy technology habits and eliminate them. Remove the temptation by putting your phone away or turning it off, close or minimize other windows on your computer's desktop, and enlist support from friends and family members to help keep you on track.

Recharge. To avoid the negative effects of chronic stress and burnout, we need time to replenish and return to our pre-stress level of functioning. This recovery process requires "switching off" from work by having periods of time when you are neither engaging in work-related activities, nor thinking about work. Our "always on" culture and availability of mobile technology makes this type of detachment difficult, because work is always within arm's reach and incoming messages repeatedly pull your thoughts back to work, even when you are off the clock. That's why it's critical that you establish some rules for yourself and set boundaries that allow you to disconnect from time to time, in a way that fits your needs and preferences. By periodically eliminating the distraction of your smartphone and focusing your attention on hobbies, community events, sports and fitness activities, healthy sleep habits and important relationships in your life, you can benefit from better physical and mental health, have more energy and less stress, and perform better in all aspects of your life.

Health-Centered Buildings: A Shifting Paradigm

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Originally presented at Healthy Buildings 10th International Conference in Brisbane, Australia.2012.



INTRODUCTION

From the perspective of public health, buildings must be designed to protect the health, safety and welfare of occupants. Going one step further, health-centered buildings not only protect occupants by “designing-out” potential hazards, but also emphasize how protective factors in the environment reduce susceptibility to injury and illness and promote overall well-being. This represents a paradigm shift from focusing on disease reduction to health promotion, emphasizing the World Health Organization’s (WHO) definition of total health. In order to do this, we must study the effect of whole building design on harder-to-measure, whole person parameters such as well-being and productivity as well as the more traditional factors of indoor air quality (IAQ) and ventilation rate.

At the present time, building-related health issues focus largely on indoor air and the impact of materials, ventilation rates and maintenance in a reactionary approach toward illness symptoms. Given the continuously increasing number of new chemicals used in building materials, this concern is very well justified. However, it is time to look much more closely at how our buildings affect human emotional functioning, social support and occupant stress. It is also time to expand our focus to include electric light, daylight, noise, views, connection to nature and spatial factors that influence how people perceive, behave and cope with environmental stressors. Researchers in the social sciences have explored these topics for decades, but their work has been largely ignored in the health field (and vice versa).

In this piece, we develop a multi-disciplinary, evidence-based conceptual framework that broadens the definition of health in buildings to address physical as well as mental, emotional and social factors.

EMOTIONAL AND SOCIAL HEALTH/PSYCHOSOCIAL WELL-BEING

For 90% of our waking hours, we live and work in manufactured worlds with artificial air, light, temperatures, sounds and materials. An increasing number of people are exploring the consequences of this evolutionarily novel lifestyle for human health and well-being. Prominent among these researchers is Stephen Boyden, who has been exploring the mismatch between our evolutionary history and modern environments for several decades. Boyden (1971) distinguishes between “survival needs” and “well-being” needs.¹ Survival needs deal with aspects of the environment that directly affect

For 90% of our waking hours, we live and work in manufactured worlds with artificial air, light, temperatures, sounds and materials.

HEALTH-CENTERED BUILDINGS

human health, such as clean air and water, lack of pathogens or toxins and opportunity for rest and sleep. Well-being needs, on the other hand, address fulfillment, quality of life and psychosocial well-being. Whereas failure to satisfy survival needs may lead to serious illness or death, failure to satisfy the well-being needs produces what Boyden calls the “gray life” of psychosocial maladjustment and stress-related illnesses.

Boyden’s well-being needs include several that are directly relevant to buildings. These include:

- Opportunity to engage in spontaneous social encounters
- Freedom to move between one social phase and another (from solitary work to group interaction)
- Opportunity to engage in a full range of behaviors (creativity, self-expression, cooperation, exploration)
- Opportunity for regular exercise
- Noise levels not much above or below that in nature
- Meaningful change and sensory variability
- An interesting visual environment



To Boyden’s list we add “connection to nature” a topic that has begun to receive a significant amount of attention in the architecture and health fields.² A growing body of research shows that the natural environment has a wide range of benefits for human health, from stress reduction and positive emotional states to enhanced social engagement. These effects are linked to window views, indoor plants, gardening and outdoor “green” exercise.

A case study of the Baltimore Medical System Healthy Living Center illustrates the successful application of these principles. Near the center of Baltimore City is the Baltimore Medical System (BMS) Highlandtown Healthy Living Center, which completed construction in 2010. It is a community health care center that employs 87 workers as physicians, managers, nurse practitioners, registered nurses, translators, medical assistants and administrative personnel. Prior to moving into the new community health care center, workers were housed in a renovated furniture factory and adjacent storefront properties that could not accommodate the high patient demand. Using the move as a catalyst for environmental health improvements, BMS designed the new building to promote the health and well-being of workers and patients. In the new building, a common waiting room with an open layout and high ceilings provides natural light and views to a terrace garden for patients and staff. The open layout is carried over into the clinical care area in the design of shared nursing and medical assistants’ stations. Most associates’ offices are on the perimeter of the building with glass doors that allow public light into the core of the floor plan. In combination, these spaces allow for more than 90% of all seated areas to be day-lit and 75% of all interior spaces to be day-lit.

A pre- and post-occupancy evaluation (PPOE) was developed with the Center for the Built Environment³ to compare workers' perceptions of their health and well-being in the new space as compared to the old space. The new building was less than a half-mile away from the old building and the workforce stayed consistent across the move. In an attempt to capture how the whole building impacted workers (as compared to studying one feature over another), semi-structured in-depth interviews and focus groups were held with 34 workers over the course of two weeks. Results from the qualitative analysis compared specific and *whole building* impacts of the indoor environment on workers' perceptions of their health and well-being. Workers responded differently when asked to discuss the impact of one feature of the building as compared to commenting about the impact of the whole building, often noting covariation and amplification effects of exposure to compounded negative environmental stimuli. In addition, workers perceived the design and operation of the building differently based on individual factors, coping skills and their overall state of well-being.

Based on these findings, the PPOE was designed to ask questions on the impact of both positive and negative stimuli in the environment on workers' health, while controlling for confounding variables. It proved challenging to ascertain the effects of changes to certain environmental stressors without accounting for the buffering or positive effect of others. To address this issue, a theoretical framework was developed to guide the development and analysis of the PPOE that illustrates the complex relationship between exposure to multiple environmental stimuli and health outcomes (Figure 1).



ENVIRONMENTAL STRESS AND HEALTH OUTCOMES MODEL

The Environmental Stress and Health Outcomes (ESHO) model (Figure 1) follows how exposure to certain ambient environmental stressors (e.g., inadequate levels of light, daylight, heat, air conditioning, airflow, toxin level and sound barriers) leads to an adverse health reaction. Negative reactions to such ambient stressors result in the accumulation of environmental stress. Initially, this may be interpreted as nuisance, inconvenience, or discomfort. However, in concert with psychological and psychosocial stresses in the workplace environment, exposure to negative ambient stressors may result in increased susceptibility to disease or poor health states. Mediating variables identified as coping factors in the model are influenced by individual factors and contribute to a state of well-being, playing a key role in defining the relationship between environmental stressors and perceptions of health. When well-being needs are met (e.g., social engagement, sensory variability, supportive work environments), a person is more able to cope with environmental stressors, thus reducing susceptibility to negative health outcomes. This relationship between exposures and health outcomes exemplifies why health-centered building research must analyze whole building impacts, or the combination of positive and negative environmental stimuli, to capture physical and psychological health impacts on the whole person.

As part of the exploratory case study, several outcomes were studied to determine how building

People are better able to cope with environmental stressors when their well-being needs are met, thus reducing susceptibility to negative health outcomes.

HEALTH-CENTERED BUILDINGS

changes impacted workers' health related to sick building syndrome, worker and patient safety, productivity and intent to stay on the job. In addition, a series of 13 questions were developed to measure employee well-being as a protective factor for stress. Confounders, including psychological and psychosocial stress, were controlled for alongside individual factors (age, job position, health history, etc.).

Well-being scores were compared across buildings, with workers reporting statistically significant improvements in overall well-being in the new building.

Further analysis was performed on the 13 questions to determine which aspects of well-being were related to the changes in the physical work environment. Results yielded seven well-being factors: attitude, motivation, satisfaction, fatigue, connection, work strain and happiness. Data analysis was performed on key factors, yielding the following results after adjusting for potential confounders:

- Occupant satisfaction with views of nature and acoustics were strong predictors of attitude.
- Occupant satisfaction with lighting was significantly associated with motivation in the workplace.
- Occupant satisfaction with acoustics and views of nature were strongly associated with work strain.
- Occupants' thermal comfort and satisfaction with IAQ were not found to be strong predictors of well-being.

Data on pre- and post-move safety perceptions were also analyzed. In the new building, workers reported that satisfaction with day lighting and views of the outdoors significantly impacted how they felt in regards to worker safety and patient safety, after adjusting for individual factors, stress and well-being. The link between daylight and staff morale, productivity and decreases in patient medical errors has been previously reported in healthcare settings.^{4,5} One explanation is that access to sunlight improves energy levels and reduces non-seasonal and seasonal depression.^{6,7} Positive feelings related to increased energy may also contribute to alertness and better avoidance of safety hazards in the workplace. Indirectly, views of nature and daylight may increase workers' feelings of being valued in the workplace. The new building provides a professional setting with state-of-the-art design features, increased layout and dedicated office space for employees. This may influence workers'

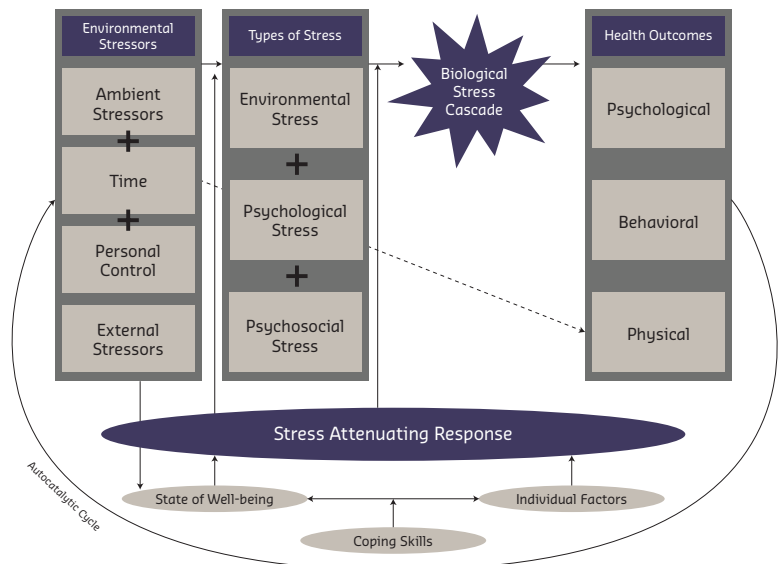


Figure 1. Environmental Stress and Health Outcomes Model.

These results support that positive environmental stimuli such as lighting and views of nature are strong predictors of perceived well-being.

HEALTHY BUILDING DESIGN

Occupant satisfaction with **views of nature, acoustics, lighting and temperature** are predictors of positive attitude, job satisfaction, motivation in the workplace, psychological and physical well-being, decreased work strain, decreased absenteeism, decreased turnover and increased productivity.



LIGHTING



ACOUSTICS



TEMPERATURE



AIR QUALITY



VIEW OF NATURE

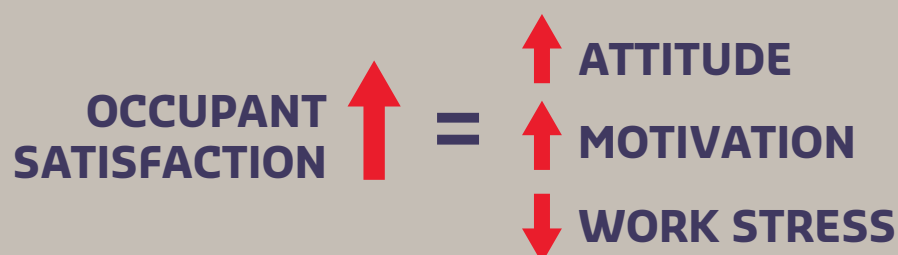
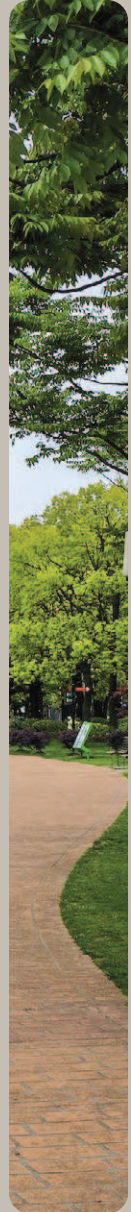
Increasing the outdoor air ventilation rate can result in a 1–3% improvement in average performance.

People are uncomfortable when humidity levels increase above 60% and as a result may attempt to control their discomfort by lowering the temperature setting, thus increasing the building operational costs.

Humidity less than 30% may result in overly dry nasal passages, increased respiratory illnesses and dry eyes.

The EPA estimates that sick building syndrome costs businesses between \$60 and \$200 billion a year.

The World Health Organization (WHO) estimates that 30% of the buildings in the United States experience indoor air quality (IAQ) problems.



HEALTH-CENTERED BUILDINGS

values and attitudes surrounding the type of care provided for patients, which is supported by reported improvements in patient safety perceptions.⁸

The results of this study show that improvements in building lighting and views of nature contribute to improved perceptions of safety climate in one health care setting. Beyond the direct effects of the building features on safety, indirect effects, including improved morale and stress related to safety issues, suggest a new research approach and effect of the impact of changes in the indoor environment on workers' health and safety.

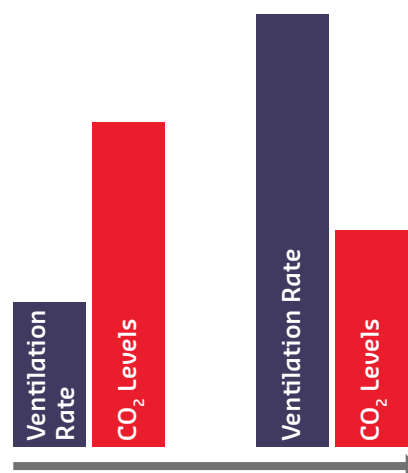
PHYSICAL QUALITIES OF WHOLE BUILDINGS/INDOOR AIR QUALITY

While assessing the Indoor Environmental Quality (IEQ) aspects of healthy buildings, discussed above, we also must address the physical building aspects from a new angle focusing on the whole building system as it relates to optimizing health. An increasing number of studies purport to investigate the link between Indoor Air Quality (IAQ) in buildings and health. The majority of research on IAQ was spurred in part by the growing number of illness reports from modern buildings. We are proposing to shift the focus from reducing disease to promoting health by attempting to optimize health in buildings. The measures to improve IAQ in buildings, which if properly applied, should result in improved occupant health, include the following:

1. Sufficient and effective ventilation
2. Source control through eliminating sources and air cleaning
3. Humidity control

In order to meet the higher energy efficiency requirements, green building design may minimize the ventilation and the ventilation effectiveness in buildings in spite of certification requirements to bring in higher percentages of outdoor air than the standard minimums, which has occasionally led to worsening IAQ. However, decreases in ventilation

rates are counter-indicated in the design of health-centered buildings. Studies are showing that higher ventilation rates promote human health by reducing IAQ exposures and improving indoor environmental quality, generally at much higher rates than the prescribed standards.^{9 10} Carbon dioxide (CO₂) levels are decreased with increasing ventilation. In a study conducted by Bayer et al, CO₂ levels were decreased by an average of 400 ppm when the ventilation rate was tripled — from 5 cfm/person to 15 cfm/person.¹¹ CO₂ is usually considered to be a surrogate for removal of airborne pollutants in indoor spaces; however, recent studies are showing that increased levels of CO₂ itself appears to have health impacts.¹²



Excessive levels of humidity are an additional risk to human health, not only due to the fact that they can potentially result in mold growth. People are uncomfortable when humidity levels increase above 60% and as a result may attempt to control their discomfort by lowering the temperature setting, thus increasing the building operational costs. In a study of ten schools in Georgia, Fischer and Bayer found that when humidity control was poor, the classroom temperatures were set approximately two degrees colder than in schools with excellent humidity control.¹³ This resulted in a ten percent increase in energy costs in these schools. Too low humidity levels also have health risks. Humidity less than 30% may result in overly dry nasal passages, increased respiratory illnesses and dry eyes.

The most commonly used method of improving IAQ in green buildings is the use of certified materials and furnishings as a means of lowering volatile organic compound (VOC) contaminant levels in buildings. This approach is known as “source control” and is an effective means of reducing sources in a building. However, the certification levels are not health-based, but rather are levels set by the certification organizations as an attempt to reach achievable level of product emission reductions. Little health-based data on the complex mixture of VOCs indoors is available other than individual VOCs that have been determined to be or suspected to be carcinogens. Notable VOCs that are or suspected to be carcinogens are formaldehyde, benzene and styrene, all of which are commonly found in indoor environments. What is known is that reducing sources of VOCs in buildings by reducing product emissions, using cleaning products with minimal perfumes and eliminating the use of highly perfumed products, such as solid air fresheners, will reduce VOCs in indoor environments and should improve the health of the building occupants.

Reducing sources of volatile organic compounds can improve the health of building occupants.

CONCLUSION

Health-centered design and operation of buildings requires a paradigm shift away from an emphasis on energy efficiency toward a focus on the building occupants’ health. Health-centered buildings require a holistic, transdisciplinary whole building approach toward complete health thus promoting health of the occupants.



Complete health addresses the *whole person* — encompassing the physical, mental and social well-being of the building occupants. Human-centered buildings protect occupants by “designing out” potential hazards as well as by “designing in” protective factors that reduce susceptibility to injury and illness and promote overall well-being.

KEY INSIGHTS:

- *At present, building-related health issues focus largely on indoor air and the impact of materials, ventilation rates and maintenance in a reactionary approach toward illness symptoms.*
- *It is time to look much more closely at how our buildings affect human emotional functioning, social support and occupant stress. It is also time to expand our focus to include electric light, daylight, noise, views, connection to nature and spatial factors that influence how people perceive, behave and cope with environmental stressors.*
- *The Environmental Stress and Health Outcomes (ESHO) model (see Figure 1 above) follows how exposure to certain ambient environmental stressors can lead to an adverse health reaction.*

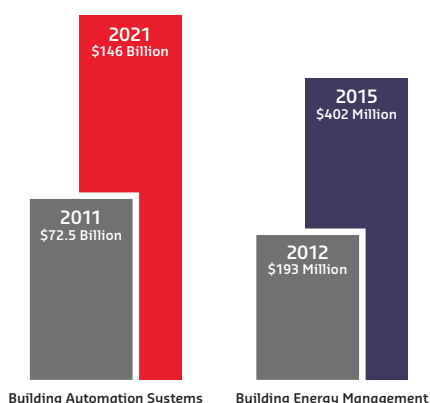
"SMARTER" BUILDINGS

Constructing "Smarter" Buildings: Raising Your Facility's IQ

Phil Rogers

While building automation systems have been around for decades, there have been significant changes in recent years because of technical advances in the field, an increase in demand for remote monitoring, and advancement in the way building owners and operators can access data.

With an increase in energy usage regulation and concern about environmental impact, the time has come for industries across the country — corporate, health care, education and government sectors — to consider facility automation, including remote monitoring and virtual energy management, as a vital part of an overall energy "smart" building. The global growth of building automation systems is estimated to double from \$72.5 billion in 2011 to \$146 billion by 2021,¹ with building energy management in North America alone expected to grow from \$193 million in 2012 to \$402 million by 2015.²



BIG DATA

A contributing factor to this explosive growth is the surge in the amount of data that is now available and accessible remotely. For the first time, building

owners and operators have access to ongoing real-time information, which provides new insights into a building's operating performance, resulting in improved operating efficiencies, reduced energy usage and the ability to make more informed decisions regarding overall energy management. Effective energy management operations result in an increase in efficiency and equipment performance, reducing the carbon footprint of a building and helping clients to reduce energy consumption and emissions.



ANALYTICS

A continuing upward trend in the amount of data available to businesses presents the opportunity to more effectively operate a "smart" building, but also poses the challenge of information overload or "big data." Energy Management Companies such as Roth (a Sodexo Company), Schneider Electric and Intelligent Buildings® LLC are working to aggregate this data and analyze it so that it can be turned into actionable information to help improve operations. Managing billions of data points throughout the U.S., these companies work side-by-side with building owners and facilities managers to develop technology platforms that include an easily interfaced automation system that controls, monitors and reports almost every aspect of a building's operating system 24 hours a day, seven days a week, 365 days a year. This system allows owners and managers to monitor a building's temperature, humidity, air quality, energy consumption, lighting, security systems and much more.

This energy management technology platform provides the ability to analyze this data and compare it to operating equipment histories, diagnose trends and patterns in the data and immediately identify potential equipment or operational issues. This useful information can then be put into action allowing for repairs, system maintenance and other activities, that will, in turn, reduce service calls, decrease labor and

help a company's bottom line by lowering operating costs. Building owners and facilities managers are also able to adjust to real-time utility pricing, shift peak demand, aggregate multiple facilities and much more, all in an effort to reduce energy spending while creating the highest level of operating efficiency and a comfortable environment for all building occupants.

These companies have been able to save customers millions of dollars in energy costs avoidance over the past decade, in addition to saving trillions of kilowatts in electricity and helping the environment by decreasing carbon dioxide, nitrogen oxide and sulfur dioxide output.

SMART GRID

Another growing trend for any "smart" building is the ability to harness the power of the ever-growing Smart Electrical Utility Grid. This grid will allow a facility to reduce the cost of its energy usage by reducing the consumption of energy at peak times from the electrical utility. The peak times for electric utilities are during high temperature days when there is a high demand on their systems due to consumers' air conditioning needs. These programs are implemented by having a building reduce power or shed load during "peak" times and are called a Demand Response program. A "smart" building will have advanced or "smart" meters installed, which can communicate with your building automation system and electric utility in real time to complete this load shedding automatically.

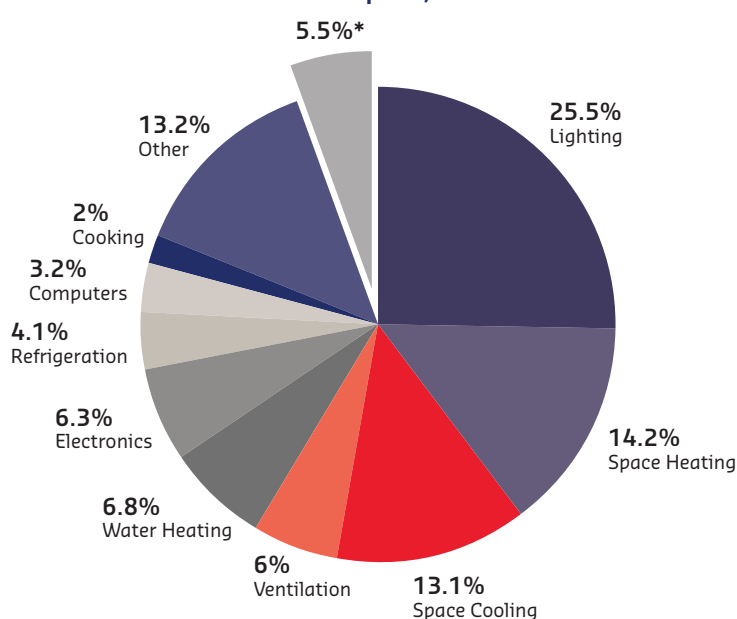
These smart or advanced meters that allow a building to maximize the value of the smart grid are growing in their use and adoption. According to the Federal Energy Regulatory Commission, the adoption rate for using smart or advanced meters versus conventional meters has increased from 4.7% in 2008 to 30.2% in 2013.³ This trend is expected to continue to grow as utilities continue to increase their demand response programs, energy efficiency legislation is adopted and more buildings are upgraded and/or built with advanced meters.

ENERGY EFFICIENT LIGHTING

According to the U.S. Department of Energy, the energy from lighting in a commercial building is on average 25% of the total energy consumption. This is the largest source of electrical consumption in a facility, so it is critical to find energy efficient lighting solutions to implement a truly "smart" building.

The greatest trend to reduce lighting energy consumption is the emergence of the light emitting diodes (LED) lamp. The LED uses less energy than the most efficient fluorescent lamp, lasts longer and is highly compatible with building automation systems. With

Chart 1 - Commercial Primary Energy End-Use Splits, 2005⁴



Source: U.S. Department of Energy, 2008

“SMARTER” BUILDINGS

these great features, it would be assumed that these lamps are the most used fixtures in the market, but unfortunately the price for LEDs is still too high to generate less than a two-year payback. The prices, quality and functionality of LEDs are continually improving and Navigant Research is forecasting LED lamp sales to commercial markets to have a compounded annual growth rate (CAGR) of 23.2% from 2013 to 2021. During the same period, the CAGR for all lamps is anticipated to be flat with -0.1%. So, the eventual removal of incandescent and halogen lighting from the market is expected to be close during the forecast period.⁵

Why Build Green?



- » Promotes Greater Health & Well-being
- » Encourages Sustainable Business Practices

SUSTAINABILITY

The main driver behind “smart” buildings is the growth of sustainability, which affects not only our personal lives but our business experiences as well. According to a 2013 report by McGraw-Hill Construction, the top two most important social reasons for building green are because it (1) promotes greater health and well-being, and (2) encourages sustainable business practices.⁶ Due to this trend, we have seen a movement by many businesses to not only report their financial performance but also their sustainability performance. So, organizations with facilities are looking to implement practices that can show their employees and customers that they practice sustainability.

This has led to the development of multiple sustainable ranking systems. In the U.S., the initial green building standard was from the United States Green Building Council with their Leadership in Environment and Energy Design (LEED) certification. Most recently we have seen the Green Globes certification platform from the Green Building Institute gain more acceptance and adoption. In October 2013, the United States General Services Administration (GSA), which owns or leases 9,600 buildings, recommended that the federal government mandate that their facilities use either LEED or Green Globes as their green building rating system.⁷

Sustainability in many cities, states and industries is being mandated by local, state and federal laws. This trend is not only occurring in the U.S. but all over the world — in the UK, for instance, 94% of firms report that their government has requirements related to green building standards.⁸ Sustainability will continue to drive the “smart” building, as it increasingly being mandated and adopted by organizations all over the world.

INTEGRATION WITH OTHER SYSTEMS

A “smarter” building needs to be able to integrate multiple building systems and services in a way that will produce the most efficient outcomes for the occupants and their organizations. Increased integration of various information technology, facility and operating systems will be required to accomplish this integration.

One method to generate this integration is to outsource your real estate or facility management functions. A recent survey by KPMG of corporate real estate leaders and real estate service providers found that the top drivers of outsourcing were the same drivers for creating a “smart” building.¹⁰ Therefore, the three top drivers of outsourcing — reducing costs, improving delivery and improving process performance — are exactly what a “smart” building should deliver as well.

A CASE STUDY OF A “SMART” BUILDING AT WORK

An excellent example of facility automation and remote monitoring operation at work is Simon Property Group, Inc., an S&P 100 company and leader in the global retail real estate industry. Headquartered in Indianapolis, the company currently owns or has an interest in 326 retail real estate properties in North America and Asia, comprising 241 million square feet.

Simon tasked an energy management services company to assist in developing an energy and building management solution that was innovative and would reduce both energy and operational capital costs. The company teamed with a global specialist in building controls to design an open, integrated solution, where they were able to connect buildings throughout the national portfolio and control all their corporate standards from the executive level.

A customer portal was developed that allowed for property managers at Simon to access information concerning HVAC issues, scheduling, local and remote alarming, power outages, equipment failure, data corruption, historical trend analysis, and more. In addition, they provided Simon with quarterly

reports that provided an overview of lighting and HVAC system operations, evaluation of corporate standards, mechanical failures, alarm management and other issues. Simon also worked with the company to develop an on-site evaluation routine, which enabled Simon to clearly see any alterations in equipment or controls at the property level. Simon Energy Managers were provided a full report on all the conditions of controls and HVAC so they could make informed decisions about how to best spend capital dollars and alter energy strategies.

As a result, this system made it easy to monitor and manage building HVAC and Lighting Controls on a portfolio level, allowing Simon to maintain the company’s corporate standard temperature and humidity levels while monitoring and maintaining the overall energy consumption and spend.

Following the implementation of this project, energy usage was reduced by 102 million kilowatt hours over a five-year period, resulting in an energy cost avoidance of \$11 million in additional energy costs. This is just one example of a “smart” building at work.

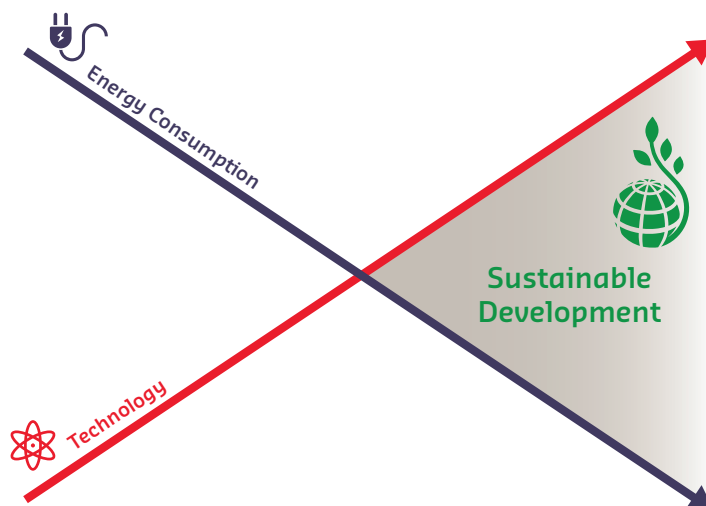
CONCLUSION: THE NEED FOR “SMARTER” BUILDINGS

Despite the many advances in facility automation over the past few years, building owners and operators can still be resistant to the technology because they believe the perceived costs are too high, or there is a lack of common protocols or familiarity with qualified contractors.

However, as the push for sustainable building construction, energy management and environmental awareness continues to grow, as well as the realization that “smart” building technology increases a company’s bottom line by cutting energy and maintenance costs, building owners and facilities managers will increasingly turn to energy management companies for solutions. They will use remote monitoring solutions to monitor their building’s controls and automation systems, and use this data to make more informed choices with regard to repairs, system maintenance and more.

"SMARTER" BUILDINGS

This intersection of where technology and energy meet — where megabytes and megawatts converge — will be a major influencer in the way buildings are constructed and operated for years to come. The growth in building facilities automation will continue as the technology used to monitor and analyze building energy usage continues to develop, customers are focusing on energy and maintenance cost reductions, and companies continue to focus on sustainability.



KEY INSIGHTS:

- *With an increase in energy usage regulation and concern about environmental impact, more industries are beginning to consider facility automation as a vital part of an overall energy "smart" building.*
- *A continuing upward trend in the amount of data available to businesses presents the opportunity to more effectively operate a "smart" building.*
- *Another growing trend is the ability to harness the power of the Smart Electrical Utility Grid, which allows a facility to reduce their consumption of energy at "peak" times.*
- *Regarding energy efficient lighting, the most prominent trend is the emergence of the light-emitting diodes (LED) lamp.*
- *A "smart" building needs to be able to integrate multiple building systems and services in a way that will produce the most efficient outcomes for the occupants and their organizations.*

Gamification: Your “Win” to an Engaging Environment

Toby Beresford

When management guru Charles “Chuck” Coonradt wrote a few books in the 90s including *Scorekeeping for Success* and *Game of Work*,¹ he probably had little inkling that 20 years later he would be dubbed “the grandfather of gamification.”

But if you read Chuck’s books, you’ll find him way ahead of his time, foreseeing a management approach that would suit not just his Generation X children but his “Generation Y millennial” grandchildren, too. The book *Game of Work* is based on a key insight: that a well-constructed game framework simplifies our working lives so we can focus on getting great results.

Since Chuck, many others have accepted and applied this insight into their workplaces. It’s now grown into an industry called “gamification” which covers the use of game mechanics outside of a purely gaming context. That means games at work, games to improve health, loyalty programs, serious games for training purposes and even software tools that “on-board” new users.

Gamification offers a flexible set of tools and techniques that, put together in the right way, drive engagement — that sense of productivity, commitment and focus that great teams and long-term customers usually demonstrate. In certain industries, better engagement can affect more than just the bottom line — think about improved adherence to safety measures among manufacturing workers, or better patient care standards among hospital employees.

Gartner predicts that over 70% of Global 2000 companies will adopt gamification by 2014.

Analyst firm Gartner predicts over 70% of Global 2000 companies will have at least one gamified application by 2014.² Similarly, M2 Research forecasts show the gamification market is expected to reach over \$2.8 billion in direct spending in the US by 2016, with especially notable growth in business and healthcare industries.³ Gamification has already been used to save time, save costs, increase sales, increase productivity and uplift just about any key performance indicator you might mention. Gamification moves the dial where countless other approaches have failed.

Engaged staff, as well as being more productive, tend also to be happier. We all recognize this from our own experience: on the days when we are engaged in our work, the time seems to fly by, but when we’re not engaged... well, those are the days you tap your wristwatch to check if it is still working! Sadly, engagement is sorely lacking in many workplaces today — a recent Gallup poll estimated that nearly 70% of Americans have disengaged at work. Gamification offers a solution.⁴



GAMIFICATION

In this article, I want to show you the power of gamification, how it has been used, the real value it has derived, provide a roadmap to navigate past some of the classic pitfalls and show you how to get started reaping the benefits of gamification in your business today.

CASE STUDY: LIVEOPS COMMUNITY LEADERBOARD FOR CALL CENTER REPS

How gamification at work can reach business goals

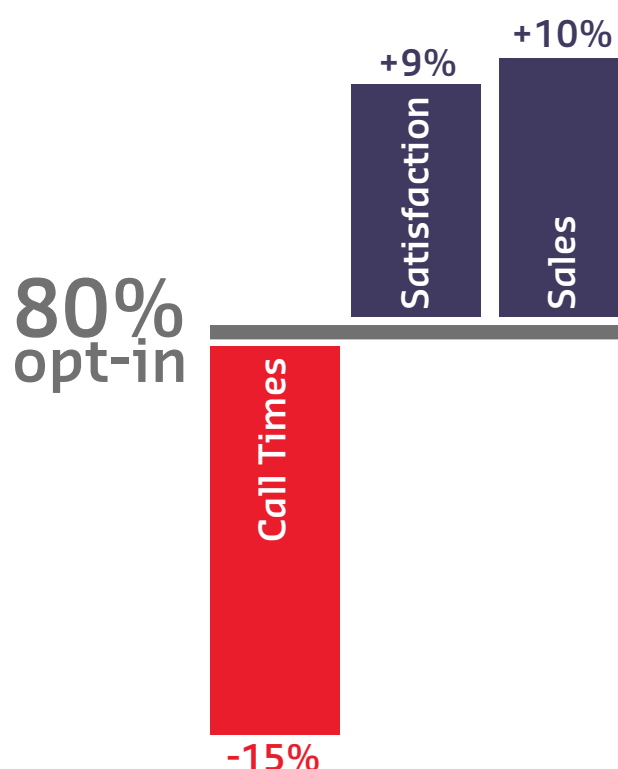
LiveOps is an outsourced call center provider “ they provide telephone support for others. Chances are you’ve already spoken to one of their staff. Whether you were stuck by the side of the road calling the Automobile Club of America, or perhaps you were calling a number from a Tristar TV advert about the AbRoller, Genie Bra or Power Juicer. In this and more cases, it would have been a LiveOps rep handling your call.



Great business for LiveOps but keeping call center staff motivated and engaged is a difficult task. With churn rates sometimes as high as 100%, working at a call center can feel like the classic dead-end job. Wanting to address the disengagement problem, Sanjay Mathur, senior vice president of product management at LiveOps, turned to gamification to help the company’s operators feel more a part of a community and identify with the team around them.

To drive more engagement among their 20,000 agents, LiveOps introduced an opt-in gamified program with badges, awards and competitive leaderboards. Agents could earn points — both as a team showing success in reaching the team goal as well as showing performance against peers. The points did not have a financial value but could be used to dress up a virtual avatar.

It may not sound like much, but Mathur saw a leap in engagement across all his key indicators for call center agents on the program. Call times reduced by an average 15%, while customer satisfaction rates improved overall by 9% for those agents on the program. Sales increased by 10%. The agents “bought in” to the program with over an 80% opt-in rate. Agents trained via the gamified system were quickly on-boarded and ready for frontline work — from 4 weeks to 14 hours on average. LiveOps had made gamification work for them.



GAMIFICATION WITHOUT TECHNOLOGY

But while LiveOps installed gamification software to achieve their goals, it's worth noting that gamification doesn't always require technology to succeed. Take the example of steel magnate Charles Schwab who, as a plant manager responsible for both the day and night shifts, struggled to persuade workers to produce more steel. Productivity was flat until he came up with a simple solution — at the end of a day shift, he chalked a single number on the floor – 6 – that reflected the total number of “heats” completed that day. The next morning he arrived in the office and the chalk had been rubbed out and replaced with a new number — in this case 10. The night shift had understood the challenge and had taken the initiative to beat the day shift.

*“The way to get things done
is to stimulate competition”
– Charles Schwab*

So now, without costing the company a dollar more, Schwab had managed to boost productivity on both shifts. “The way to get things done is to stimulate competition” Schwab told Dale Carnegie, who wrote up the story in his book, *How to Win Friends and Influence People*.⁵

So that was the key difference: a simple game drove a change of behavior that seemed impossible. The power of games at work.

NAVIGATING THE RAPIDS – GETTING GAMIFICATION RIGHT THE FIRST TIME

Schwab got the game right — he measured the right things and designed his game to fit the culture of the business (he made the two shifts compete as teams rather than as individuals).

But for others, applying games at work can be filled with pitfalls. When Gartner said that 80% of gamification initiatives in 2012 would fail by 2014, it recognized that what works for some won't work for all. Bad design can still kill a gamification program. As to be expected, there are both good and bad practices.

**80% of
gamification
initiatives in
2012 would
fail by 2014**

For me, bad practice is when the “gamifier” fails to make the game resonate in the context of the players. Getting the right balance of flow, feedback and rewards is critical — too difficult and players disengage; too many meaningless badges and “badge fatigue” sets in; not enough accurate feedback and players lose faith in the system.

When I interviewed security staff at a London airport about a new “TV dashboard” that showed their progress in achieving a fast throughput of passengers, I heard an all too familiar complaint — “That doesn't really concern us to be honest, it's something for management.” The new system tracked number of trays per hour and number of passengers per minute,

highlighting performance in either green for above par or red for below par. Clearly the installers had failed to correctly gamify the system. I noted that as the shifts changed, the numbers on the TVs stayed the same.

How the designers could have learned by applying the principles of gamification and learning from Charles Schwab's experience, to show the shifts how they fared against each other!

GAMIFICATION

Yet gamification isn't something we need to leave for the experts. If you've ever made up a game to play with a child, such as asking, "How many times in a row can you catch this ball?" then you already have what it takes to be a gamifier. In this next section I want to show you how to apply game mechanics to engage others in your workplace.

HOW TO BECOME A GAMIFIER AT WORK

So, where do you get started?

Set Goals and Objectives

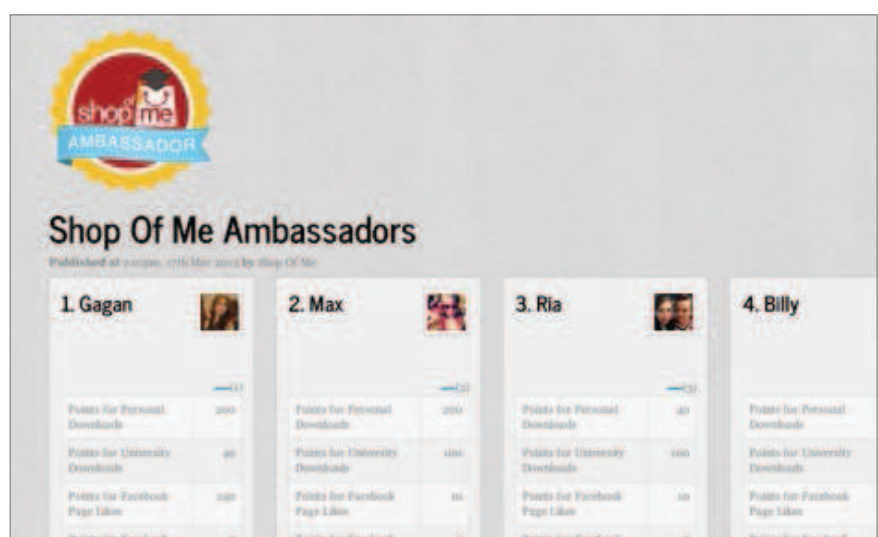
First, you need to define your business or organizational objectives from your local context and determine which issues you want to address. These goals should be SMART – Specific, Measurable, Attainable, Relevant, and Time-Sensitive. For instance, a hospital might aim to reduce infection rates by a specific percentage with one year, or a school might endeavor to increase the percentage of students passing core exams by the end of the school year.

Let's imagine a gamification program for a professional sales team where we aim to increase the use of social media to drive new business.

Decide on Metrics that Quantify Success

The next step is to identify what **activities** and corresponding **responses** you can measure that achieve that goal. An activity might be something that each rep does; a response is what others do as a result. In my sales team example, we might decide that if a sales rep used Twitter to get a retweet from one of their followers (a response), that would constitute a good social selling objective. We might also track the total number of LinkedIn updates and new connections made (activities).

If you can't find quantifiable metrics, then you might need to narrow your business objective to something that you can easily measure and collect. Many jobs simply cannot be boiled down to numbers and that prevents many gamification techniques from working. Alternatively, it may be that you need to implement systems that generate those metrics — for example, giving customers a way to communicate their level of satisfaction through a rating system.



Internet startup Shop Of Me created an "Ambassador score" to drive sales behavior among their university ambassadors.



Decide on a Scoring System

Based on your metrics, you next need to create a scoring system that reflects your business priorities toward reaching your goal — is a LinkedIn connection more important than a retweet? That's a decision you will have to make.

In my sales example, we might allocate 10 points to LinkedIn connection, 5 points for the retweet and just 1 point for sharing an update on LinkedIn.

Decide on Feedback Presentation

How the game is presented to individuals really matters. Game Designer Jesse Schell advises “First and foremost it should look appealing as this will encourage people to engage further.”

There are three basic ways to present feedback:

- **Personal Performance** – each person sees how they are performing against themselves. This is how most people improve their golf game — has my handicap gone up or down?
- **Peer Performance** – each person sees how they are performing against their peers. This suits competitive environments, such as different competing firms or sales reps where progress against peers is part of the business culture.
- **Team Performance** – each person sees only how their team is performing against other teams. Individual success or failure is subordinate to whether the team as a whole is succeeding. The Stock Exchange might be the ultimate example of this — entire companies are reduced to a contest as to whether their stock is popular or not!

In my example, since I'm thinking about sales teams, I would opt to use a peer performance style of presentation (a leaderboard of individuals) — this would create a sense of friendly competition.

Presenting feedback on a team level can be more motivating, as it focuses on the performance of the team rather than that of the individual within the team.

GAMIFICATION

Decide on Rewards

Next, we need to think about the rewards — what does it really mean to do well in the gamified experience? What are the rewards for success? Gamification good practice strongly advises starting with non-cash incentives — that means the prizes are **status** and **access**.

Think “Employee of the Week” or encouraging words — “You just achieved 5 calls under 5 minutes in a row, that’s a personal best.” Or, “As a Top 40 rep you are now authorized to use Facebook during your lunch break.” The best rewards are those that mesh well with the intrinsic meaning behind the work itself. For example, “You’ve shortened all your call times this week — have a 20-minute coffee break, you’ve earned it.” Rewards also need to be “cool” and that means they need to feel right in your local context. Nobody wants a reward that will cause them embarrassment or cost them to receive it.

Pilot It

You’ve got your objective, you’ve got some initial quantifiable metrics, now all you need to do is run a pilot – a small team of 20 people is usually enough to find the strengths and weaknesses of your program.

During the pilot, you are looking out for places where players “game the system” in ways you hadn’t intended and for ways they can cheat that

will undermine trust. Additionally, you might want to run the pilot in “stealth” mode for a while first, as this will generate a baseline score. Having a baseline means you can demonstrate the quantifiable impact on the business goal from running the gamified program and showing it to staff.

Evaluation

Evaluating the outcomes is a vital step — in particular you need to try to compare everything you’ve been measuring against your baseline. Typically, you will see increases between 10% and 400% on the indicators you are measuring. You should also evaluate player engagement (if players are complaining about their scores, you are doing the right thing!) and program virality (have other staff asked to join the program?). Both are great indicators that your gamified program is working.

Iteration

Once you’ve run a pilot, it is likely you will need to tweak the way your program works. That might mean changing the scoring system, adding or removing metrics, or offering different rewards. At this stage it’s important to let players know you’ll be doing this up front. Keep communicating clearly around the program.

Don’t worry if you find the iteration process goes on a while! Football has made 8 changes to its scoring system since 1883. Nailing down how much a single “touchdown” or a “field goal” is really worth, when converted to points, took many games worth of experience, to achieve the scoring system we have today (finalized in 1988).

You’ll be pleased to know that there are shortcuts to pure points systems that don’t require 100 years of experience! Using a relatively weighted ranking system can be much more forgiving, as it ranks performances against others in the team and avoids a built-in bias toward one “cheaper” behavior that is easier to achieve.

Rank	Player	Total	RTs	Updates	Connections
1.	Scott Dodson	48	20	8	20
2.	Mario Herger	28	5	13	10
3.	Scott Sinclair	25	5	0	20
4.	Guy Stephens @guy1067	21	5	1	15
5.	Scott Schnaars	14	0	4	10
6.	Toby Beresford	12	10	2	0

For my social selling example I used Leaderboarded to create a pilot program with friends.

Trends

As gamification's contribution to behavior change is better understood, so the industry as a whole has begun to mature. To improve practices are new trade associations such as GamFed.com, which offers a peer review system for gamifiers' completed projects. For myself, I run a monthly leaderboard of "gamification gurus,"⁶ which highlights the individuals leading the community conversation around gamification. While it is no guarantee of good advice, simply being on the list shows a willingness to stand publicly by their teachings.

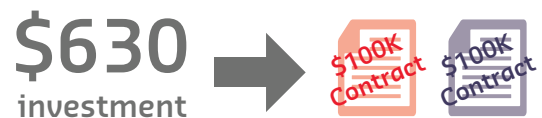
The year 2014 appears to be when gamification is ready for wider adoption. Many of the common pitfalls have now been identified and organizations starting today can be confident in avoiding the mistakes of others.

Many successful gamification use cases have been shrink-wrapped into pre-packaged products that fit with a specific need — whether that's a Follower of the Week competition for Twitter, a salesforce adoption leaderboard or a "punch tab" loyalty system for Website visitors — you should be able to find what you are looking for. A great resource is the gamification.co vendor directory.⁷

CONCLUSION

Gamification and games at work can drive business success, and depending on your industry, a host of other outcomes like health, safety, and better adherence to standards and best practices. The return on investment calculation will be different in each case. One of my clients paid \$630 for an annual leaderboard that he used for lead generation among the "untouchable" premier league soccer clubs. He has already got two face-to-face meetings as a result of the leaderboard and significant brand uplift. When you are selling \$50,000–\$100,000 contracts, \$630 seems a small price to pay for qualified business leads.

Many other companies across the globe have seen uplifts in sales, customer satisfaction and software adoption through the use of game mechanics appropriately woven into the work experience. Maybe it is time for you to get started and join the gamification revolution.



KEY INSIGHTS:

- *"Gamification" covers the use of game mechanics outside of a purely gaming context, and can include games that drive workplace outcomes, games to improve health, loyalty programs, serious games for training purposes and even software tools that "on-board" new users.*
- *In the workplace, gamification can drive employee engagement, business success and other organizational outcomes, like health and safety.*
- *Creating a successful gamification program involves the following steps:*
 - » (1) Setting goals and objectives,
 - » (2) Deciding on metrics, a scoring system, feedback presentation and rewards.
 - » (3) Piloting the program.
 - » (4) Evaluating the program.
 - » (5) Iteration (as needed).

Exploring Cultural Nuances in a Global Workplace



Stephen P. Sakach, CFM CPE

One of the realities of today's workplace is the need for cross-cultural understanding in our increasingly global workplace. Whether you need to manage a diverse workforce that reflects a polyglot of cultures or nationalities under one roof or you find yourself crossing time zones to manage multiple locations in multiple countries, success for today's manager very often entails developing the facility to understand, appreciate and integrate a multiplicity of varied backgrounds, communications styles and cultural norms. Whether you are building your team, managing a world-wide supply chain, or marketing to an international clientele, cross-cultural understanding is an essential part of every modern manager's repertoire.

Here at the International Monetary Fund, we have the unique environment with a multi-national, multi-cultural workforce broadly reflective of our 188 member countries all housed in our Washington, D.C. headquarters facilities. In addition, we lease small office spaces and residential facilities in approximately 102 countries. As Chief of Facilities Operations, working with this diverse and vibrant community has provided me with rich rewards and priceless learning, but also with some substantial challenges in meeting the needs of such a diverse clientele. Our daily routine often entails rapid transitions from culture to culture — and it can often be difficult to process the often stark difference between conversational styles — let alone non-verbal cues! My experience is certainly not comprehensive, but hopefully some of my learning can help you to better navigate some of the challenges to cross-cultural management and communication.

Developing not just the intellectual tools, but the emotional intelligence necessary to build trust and respect in a multi-cultural workplace is a complex and constantly evolving process, but success can bring substantial personal and organizational rewards. This article will seek to identify a number of the hallmarks of cultural differentiation in the workplace that merit consideration in management in a multi-cultural context. It goes without saying that cultural norms are largely stereotypes and individuals invariably widely vary from the stereotype. However, cultural stereotype has its place as a starting point to better understanding the background and social context of someone from a different society. **Great caution must always be taken to ensure you never *act on a stereotype*.** Actions must always be informed by understanding, not assumption.

So, with that caution in mind, let us explore some of the elements of cultural difference in the workplace that we will endeavor to explore: coping with differing modes of communication, reconciling disparate views of what constitutes work and work/life balance, building shared cultural references and shared historical experiences, and learning to not just ignore, but to value and honor differences in dress, appearance and even expression. This is certainly not a complete, or even a near-complete list of issues, but will hopefully serve as food for thought to fuel your individual journey into cross-cultural communication.

Emotional IQ: the ability to identify, assess and control the emotions of oneself, of others and of groups.

Intelligent IQ: a measure of the intelligence of an individual derived from results obtained from specially designed tests. The quotient is traditionally derived by dividing an individual's mental age by his chronological age and multiplying the result by 100.

COMMUNICATIONS STYLE (HIGH CONTEXT VS. LOW CONTEXT COMMUNICATION)

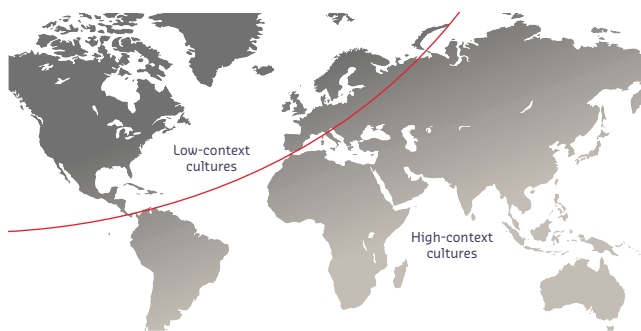
Anthropologist Edward T. Hall propounded the theory of high- and low-context culture, which can provide a means to better understand and manage the way in which culture shapes communication and decision making. This relates to the framework, background, and surrounding circumstances in which communication or an event takes place. Communications can be verbal, logical and direct, but it is equally true that successful cross-cultural communications requires awareness of non-verbal cues and development of the realization that the form in which communications are conducted matter, and often issues of emotion, commitment and social status and past history matter as much or more than “the issues” at hand.

High-context cultures (including much of the Middle East, Asia, Africa, and South America) are relational, collaborative, intuitive and contemplative. This means that people in these cultures emphasize interpersonal relationships. Developing trust is an important first step to any business transaction. According to Hall, these cultures are collectivist, preferring group harmony and consensus to individual achievement. High-context communication tends to be more indirect and more formal. The format of conversation — often more formal and characterized by flowery language, rituals like card exchanges and extensive

“small talk” — are crucial in establishing context and providing the relationship framework. Learning, understanding and following the appropriate norms and rituals of high-context cultures are an important bridge to effective communication. Discussions are important in and of themselves and the emphasis is on viewpoints being heard and understood rather than upon evaluating logical arguments.

Low-context cultures (including North America and much of Western Europe) are logical, linear, individualistic and action-oriented. People from low-context cultures value logic, facts and directness. Solving a problem means lining up the facts and evaluating one after another until the issue is typically resolved. The rationale for decision-making (at least explicitly) revolves around the examination of “facts” and discussion, even argumentation, revolves around the facts. Typically, emphasis is on advocacy and persuasion rather than of listening and cooperation. Discussions are expected to end with actions, and communicators are expected to be straightforward, concise and efficient in telling what action is expected.

Understanding how to “mix and match” low- and high-context communication styles is an essential skill in today’s world, and will pay dividends in not only your career, but in your personal life as well. Organizations with strong internal cultures that provide structure to conversation and decision-making make the task easier by providing common ground.



High-context cultures vs. Low-context cultures

DIFFERING VIEWS OF WORK/LIFE BALANCE AND HIERARCHY

“Some people live to work, while others work to live.” This hoary cliché nevertheless expresses the truth that work occupies a differing degree of importance in world cultures. In some cultures, who one is can be primarily defined by what one does. While we all identify ourselves as a sum of our many roles (man, husband, father, facility manager, American, baseball fan, etc.) the weighting of those

EXPLORING CULTURAL NUANCES

identifications can vary greatly. Different cultures have divergent views on the centrality of work to life, and about where one draws acceptable boundaries between the personal and the professional. Discussions about matters outside of work can be considered intrusive or nosy by some, but failure to ask about such things can equally be considered uncaring and distant by others. One approach may be to volunteer innocuous personal details into conversation (e.g., my wife works downtown and was telling me that traffic was awful yesterday) and see what is shared in return. In other cases, observe what they share with colleagues.

Care should be taken to evaluate the role of hierarchy in such conversations. In many high-context cultures, appropriate distance is expected between high status individuals and those of lower relative status. Sharing of personal details can be uncomfortable for both parties and should be avoided until and unless a more lasting professional relationship is established.

Similarly, expectations around working hours, break time, vacation time and acceptable reasons for using leave vary across the world, and smart managers are wise to have an explicit conversation to set forth clearly what each party understands about such matters. This is probably good advice even within the same culture.

CREATING SHARED CULTURAL CONTEXTS

How often do you find yourself using cultural references as shorthand to explain more complicated references? The U.S. hamburger chain Wendy's used an advertising campaign with the tagline "Where's the beef?" that caught on as a shorthand reference for "your proposal lacks substance." While perfectly understandable to an American of a certain age, it is utterly incomprehensible to non-Americans of the same age and even to younger Americans. Similarly, shared historical experiences shape culture — where were you when the Berlin Wall fell? Remember what it was like when the Greeks invaded Cyprus, or can you recall the launch of Sputnik? Help form the glue that bonds people into cultures. Humor is very difficult — particularly irony — to communicate across cultures. Even laughter itself is interpreted in different ways in different cultures, in that some cultures laugh to communicate embarrassment and discomfort rather than amusement, and Western managers can not only unknowingly horrify their colleagues, they can actively misinterpret the reaction into a belief that their colleague shared the joke!



Shared context is a very important component of relationship-building. Successful multi-cultural teams build their own shared context over time. Making a conscious effort to recall and remember key team experiences or to take the time to celebrate important landmarks in a business relationship can play a critical role in deepening partnership and communication. Nothing bonds like sharing and finding ways to share thoughts and experiences, and feelings can only assist in the process of developing cooperation and communication along the road to accomplishing shared goals and objectives.

RECONCILING VARIED TECHNICAL BACKGROUNDS AND EXPERIENCES

A common misconception is that technical expertise is distributed similarly to the degree of technical advancement of one's home country. Many conflate lack of regular access to advanced technology and systems with lack of familiarity. In fact, it is often truer that persons for whom such systems are perceived as a luxury rather than an entitlement take them much more seriously and have had to exhibit far greater perseverance and dedication just to familiarize themselves with them. It is equally true that different types of technology are used in different parts of the world, and we have benefited many times from having a colleague from a different part of the world bring up certain technology or an approach that we had never used or considered. Also, what is plentiful in one part of the world is scarce in another (think of water, oil, or arable land) and scarcity tends to breed innovation. Economically speaking, higher costs for standard items means that alternatives often become cost-effective in areas of scarcity — and thus undergo deeper development — than they do in wealthier developed countries. Successful managers engage all members of the team in problem solving and make active efforts to elicit everyone's experience — perhaps by asking team members explicitly how they had solved similar problems in their country in the past.

EMBRACING VISIBLE DIFFERENCES IN DRESS, POSTURE AND EXPRESSION

The most important thing to keep in mind about non-verbal behaviors is that they do not translate across cultures easily and can lead to serious misunderstandings. Human behaviors are driven by values, beliefs and attitudes, and it is helpful to consider how these invisible aspects of culture drive the behaviors we can see.

Eye Contact: If the eyes are the gateway to the soul, perhaps no non-verbal behavior is more understood cross-culturally than eye contact. In the American context, eye contact is critical to expressing interest and involvement — a lack of eye contact in conversation is particularly disturbing. In many other cultures, averting the eyes is a sign of respect. Eye contact is also used as a means of communicating readiness to speak and readiness to allow others to speak. Misunderstandings about presence or lack of eye contact can complicate a discussion immeasurably!

Head Nodding: Nodding of the head may be a sign of acknowledgment rather than agreement in some cultures. The nod may be saying, "Yes, I am listening to you intently" rather than "Yes, I understand what you are saying and I agree." So, nodding and silence may mean, "I am listening...but I am not in agreement." The only way to know is to ask in a respectful manner if they understand or have any concerns. You may have to ask more than once — even somewhat emphatically! Asking open-ended questions will elicit more thorough answers and reduce deferential head nodding.



EXPLORING CULTURAL NUANCES

Use of Silence: Americans are generally uncomfortable with any period of silence in conversation, and will tend to rush through pauses and quickly complete sentences that dangle. As a result, people from less-direct cultures may struggle to participate equally in conversation with those from direct cultures, an obvious hindrance to successful communication. The solution is to practice allowing silence, which necessitates slowing down the conversation and practicing more careful listening as well. Remember that conversation can be a means to build a relationship rather than to directly proceed to a conclusion. The use of silence suggests really hearing, considering, and valuing what is being said by the other person and is critical in cross-cultural interactions in establishing trust.

Expressiveness, Gesturing and Tone: Reserved cultures can often misinterpret the sometimes wild and expressive gesturing of many Latin American and Mediterranean speakers as an indication of strong emotion. Lack of gesture is often interpreted as lack of emotion or involvement, when in fact it can be an indication of the strongest of emotions. Some languages with hard consonants and low vowels often sound angry or combative in the ear of a non-speaker. In fact, any conversation in a language not spoken by the listener will tend to cause discomfort for that listener. The unknown is always more disconcerting than the known.

Smiles: In American and Western European cultures, there's a big difference between a wry smile and a happy smile, just as in many Asian cultures a "masking smile," with corners of the mouth turned down, is a polite way of letting you know what you are doing is not appropriate. Similarly, in many Asian cultures, laughter can be a sign of embarrassment rather than a response to humor.

Awareness of non-verbal cues is an essential skill to successful cross-cultural communication. Embrace the differences in the cultures that you encounter by seeking to understand prior to seeking to be understood.



CONCLUSION

Our increasingly connected world has brought a cross-cultural mix into each of our lives. This process brings a richness of experience and diversity, but also an unprecedented degree of difference and difficulty in communicating that can be uncomfortable and challenging. Cooperation between people of differing backgrounds and cultures provides new ideas and exciting new possibilities, but also creates new tensions and potential for

conflict, as we experience interactions that challenge our most basic assumptions about how we relate to others. Successfully navigating these challenges to realize the enormous potential of the multi-cultural world requires gaining a new level of self-awareness and emotional intelligence. This article has sought to provide you with a few helpful hints in building bridges in your cross-cultural communication efforts. However, one should always remember that people are individuals — not the embodiment of cultural norms. Nothing can possibly replace getting to know people one at a time — their strengths, hopes, dreams and history. All business is about people and learning to remove the cultural impediments to people-to-people communications can allow you to realize your full business and personal potential.

KEY INSIGHTS:

- *In today's increasingly global workplace, cross-cultural understanding is essential in order for managers to realize the potential of their multi-cultural employees and colleagues, and respectfully interact with clients.*
- *Is it especially important to consider the following cultural differences:*
 - » *Communications style*
 - » *Differing views of work/life balance and hierarchy*
 - » *Varied technical backgrounds and experience*
 - » *Differences in dress, posture and expression*
- *Creating shared cultural context is an important component of relationship-building and can assist in the process of developing cooperation and communication along the road to accomplishing shared goals and objectives.*

VOI is the New ROI in Employee Rewards & Recognition



Guilherme Trivellato Andrade, MPH, MBA

Creating and sustaining a high-performing workforce is the ultimate goal of modern human capital management. As career specialization becomes increasingly important and talent shortage looms globally,¹ retaining human assets and engaging employees to contribute their full potential is vital to competitive success. The link between employee engagement at work and organizational performance is widely established and highly generalizable across industry sectors. According to Gallup, high levels of employee engagement directly relate to nine key performance indicators at the business unit level: profitability, productivity, turnover, safety incidents, patient safety incidents, quality, customer loyalty, shrinkage, and absenteeism.²

Providing employees with market rate compensation and good working conditions is necessary to fulfill their basic needs, but not sufficient to instill a culture of superior performance, especially as diverse generations intersect in the workforce. One critical element often missing from the annual strategic plan is employee engagement and motivation. This is due to a lack of understanding in how to calculate the value of these attributes. However, this can be solved through a strategic approach to rewards and recognition. Formal rewards

and recognition programs provide the most comprehensive platform to tailor incentives to organizational values, while fostering a culture of employee engagement that achieves business goals. According to World at Work, there has been a steady increase in structured recognition programs from 2002 to 2013.³ But as a growing number of organizations increase the use of these programs, a fundamental question arises: how should managers demonstrate the value of their programs to senior management?

As a growing number of organizations increase the use of rewards and recognition programs, a fundamental question arises: how can managers best demonstrate the value of these programs to senior management?

Usually the first response to this question is an attempt to measure ROI (Return on Investment), but leading companies are progressively realizing that the benefits of recognition programs go beyond short-term financial calculations. The emerging VOI (Value on Investment) framework proposes that intangible assets such as knowledge, networks, collaboration, and communities of practice — which are an imperative for all kinds of organizations — be incorporated into value assessments, as they are the source of most new products, services, and experiences.⁴ The key advantage of a VOI model is that it treats ROI as an equal input to less tangible metrics, giving managers the ability to qualify and quantify the impact of recognition programs.

ORIGINS OF THE VOI FRAMEWORK

Gartner introduced the concept of VOI in their 2001 research report, “Changing the View of ROI to VOI — Value on Investment.”⁵

In the report, Gartner predicted that by

2006, “50 percent of Fortune 1000 companies will identify an owner for workplace initiatives, formally track and manage intangible assets, and measure investment versus value creation.” It should be noted that the VOI framework was initially designed to measure the outcomes of investments in information and communications technologies.

50%
Workplace
Initiative
Owners

FORTUNE1000

According to Gartner, there are five measurable elements that contribute to the new VOI value proposition. Specifically, value-building initiatives change an organization’s dynamics by encouraging:

1. Business process reinvention and innovation;
2. Cultivation, management and leveraging of knowledge assets;
3. Collaboration and increased capabilities to learn and develop communities;
4. Individual and organizational competencies; and
5. New kinds and levels of leadership.

Deconstructing VOI into these five elements can help an employer understand which outcomes are bringing about organizational change and thus increasing value. Yet decoupling the contribution of each program element and outcome can be a frustrating task. However, armed with a modern, structured framework for implementation and analysis, it is possible for managers to build a strong case for recognition programs in any organization. Let’s start by defining one of the most common tools in value assessment. ROI is the most common measure of financial efficiency between benefits and costs of investments.

$$\frac{\text{Gains from the investment} - \text{Costs of the investment}}{\text{Cost of the investment}} = \text{ROI}$$

The gains from the investments are the incremental financial benefits expected from the program, while the costs are the incremental expenditures incurred to operationalize it. The challenge of the ROI calculation lies in that there is no single source to ascertain gains and costs. In many organizations, program budget, tracking, oversight, rewards standardization and implementation vary dramatically across departments and geographic regions. A sample of incremental costs can include implementation, software, staff resources, rewards and hidden costs (certificate frames, pizza parties) buried in expense reports. When calculating gains, organizations should prioritize outcomes that best align with their values. While some companies may focus on increasing productivity levels and quality, others target organizational climate, employee retention and safety incidents, innovation, volunteer groups and behaviors that demonstrate company values. For the purposes of ROI calculation, all gains in the recognition and reward program are to be assigned a dollar value, which is difficult to determine.

VOI IS THE NEW ROI

While ROI estimation remains a useful tool in making the economic case for investments in recognition programs, its measurement ability is one-dimensional, and therefore restricted to capturing only a limited number of factors that impact performance. How do you assign a dollar value to improved communication and collaborative relationships? What are the exact costs of losing a highly talented employee to a competitor? How many accidents are avoided by

having manufacturing workers look after each other? Even in the best of circumstances, compiling all the inputs for the ROI formula is an ambiguous task and yet the output provides an incomplete picture of program impact.

Even in the best of circumstances, compiling all the inputs for the ROI formula is an ambiguous task and yet the output provides an incomplete picture of program impact.

VOI IN EMPLOYEE REWARDS AND RECOGNITION

The emerging trend in rewards and recognition programs is the acknowledgment of multiple economic, human and organizational benefits in value demonstration.⁶ In today's economy, harder to quantify resources such as engagement, collaboration, networks and retaining scarce skills are the key to creating services and products that have a competitive advantage.

Consequently, optimizing and measuring these assets will become an imperative metric for organizational performance. While ROI is still an important component of VOI and may be sufficient in some tactical analysis, most organizations will be able to better determine the impact of programs by using the more comprehensive VOI model, which emphasizes qualitative and quantitative impact on performance. Only a few measurement tools have been developed that effectively capture the VOI of employee rewards and recognition programs; one of these tools, Employee Lifetime Value, is described in greater detail below:

Employee Lifetime Value (ELTV): Employee Lifetime Value, developed by the Forum for People Performance Management and Measurement, is defined as a quantitative measure of the long-term contribution an employee makes to an organization.⁷ In contrast to ROI, ELTV measure the long-term, comprehensive value obtained from a particular investment in people – and rewards and recognition programs are one form of investing in workers.

According to the Forum,

“Many forms of employee-generated value exist. This may include instances of non-selling employees convincing people to become customers, or employees’ enthusiasm for a job making a company look attractive to potential customers or employees. Similarly, employees can contribute value by identifying or implementing cost savings in production, purchasing, distribution, pricing, or a host of other areas. Employees can also generate a great deal of goodwill through interpersonal relationships, inside and outside the workplace. A comprehensive assessment of employee value cannot be limited to just direct, measurable cash flows.”

Figure 1 below illustrates the ELTV employee value proposition:

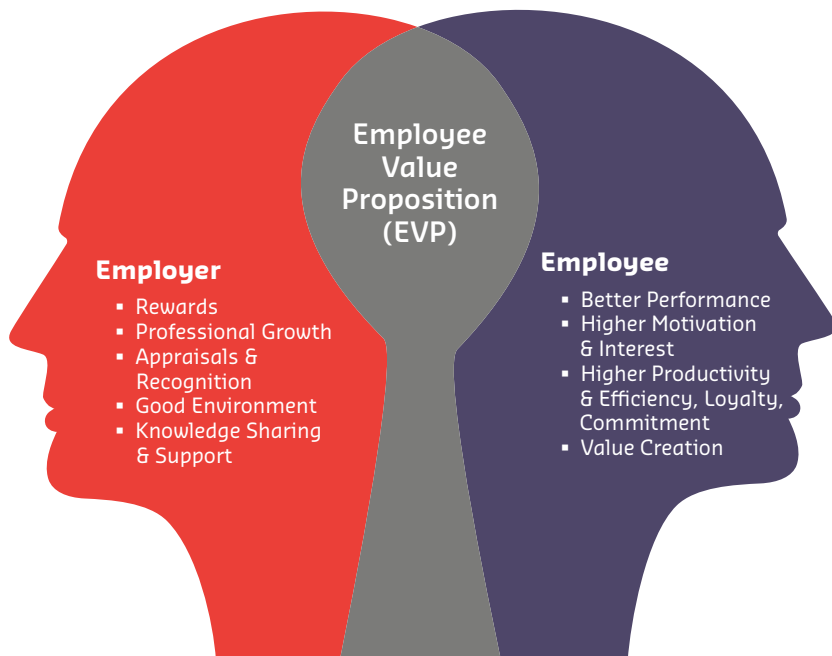


Figure 1: Employee Lifetime Value Proposition

The evolution to a VOI model like the ELTV, however, requires senior management buy-in that less tangible assets are just as financially valuable as sales and productivity valuations. To understand their program's full VOI, managers should avoid fragmented delivery of rewards and recognition incentives and implement an all-inclusive program that sets benchmarks and tracks a variety of outcomes over time. By doing so, managers get valuable information on how to continuously improve program components according to evolving needs of the employee population.⁸

The evolution to a VOI model; however, requires senior management buy-in that less tangible assets are just as financially valuable as sales and productivity valuations.

Measuring VOI

Questions to assess the full value of recognition programs:

- How does stronger engagement create new products, save money or increase sales?
- How does stronger engagement help improve customer retention?
- How does the recognition program impact work culture and productivity?
- How does improved engagement help reduce safety incidents/service quality?
- How else does the recognition program benefit the organization performance?

CONCLUSION

As formal recognition programs continue to increase, so does the demand for defining payback. Introducing a VOI framework in rewards and recognition programming can help organizational stakeholders capture a true perspective of all factors that impact performance and value creation. As opposed to ROI calculations, which tend to be limited in capturing the true breadth of program impact, the VOI model enables comprehensive appraisal of the total long-term value of the investment. VOI is a more robust tool to assess the strategic potential of rewards and recognition programs to change organizational outcomes. By adopting a formal, systematic approach to rewards and recognition program design, management and delivery managers will be developing a framework that will provide valuable insights that can measure the components of VOI.

KEY INSIGHTS:

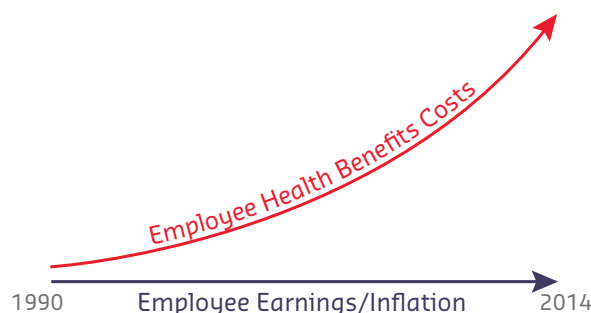
- *The VOI (Value on Investment) framework proposes that intangible assets such as knowledge, networks, collaboration and communities of practice be incorporated into value assessments, as they are the source of most new products, services and experiences.*
- *Introducing a VOI framework in rewards and recognition programming can help organizations capture a true perspective of all factors that impact performance and value creation. Employee Lifetime Value (ELV) is one measurement tool that can be used to capture the VOI of employee rewards and recognition programs.*
- *Managers should avoid fragmented delivery of rewards and recognition incentives by implementing an all-inclusive program that sets benchmarks and tracks a variety of outcomes over time.*

Total Worker Health™: A Holistic Perspective on Employee Well-Being



David Hurtado, ScD

The alarming rise in employee health care costs in the U.S. has become a central issue in the corporate agenda due to the threat it represents to business sustainability. Over the last 15 years, the total health benefits cost per employee has been growing consistently above overall inflation and worker earnings levels. The costs of poor worker health severely hit corporate America's bottom line. The total costs due to health problems are often underestimated, since a significant share exert influence through indirect pathways and are often not reflected in accounting statements.



Chronic diseases and workplace injuries are major drivers of runaway health care costs. These conditions are largely modifiable, and can be substantially prevented if a sound population health management strategy is adopted. The workplace represents an ideal setting for the development of health enhancement programs, and growing evidence shows that health management strategies that integrate initiatives to promote and protect worker health may help minimize the economic and social burden associated with health problems.

We define an integrated approach as a strategic and operational coordination of policies, programs and practices designed to simultaneously prevent work-related injuries and illnesses and enhance overall workforce health and well-being.

Traditionally, Occupational Safety and Health Programs (OSH), Worksite Health Promotion (WHP), and employee benefits and other supports (HR) have operated in independent “silos” within organizations, even though they share the common goal of ensuring worker health and well-being. In worksites, departments responsible for occupational safety and health are often charged with “health protection” initiatives, while “health promotion” may be managed by HR or other departments in the worksite. This disconnect may generate important gaps, redundancies and inefficiency in policies, programs and practices. Moreover, fragmentation may lead to inconsistent communications and offerings to employees, which may thwart participation levels and program outcomes.

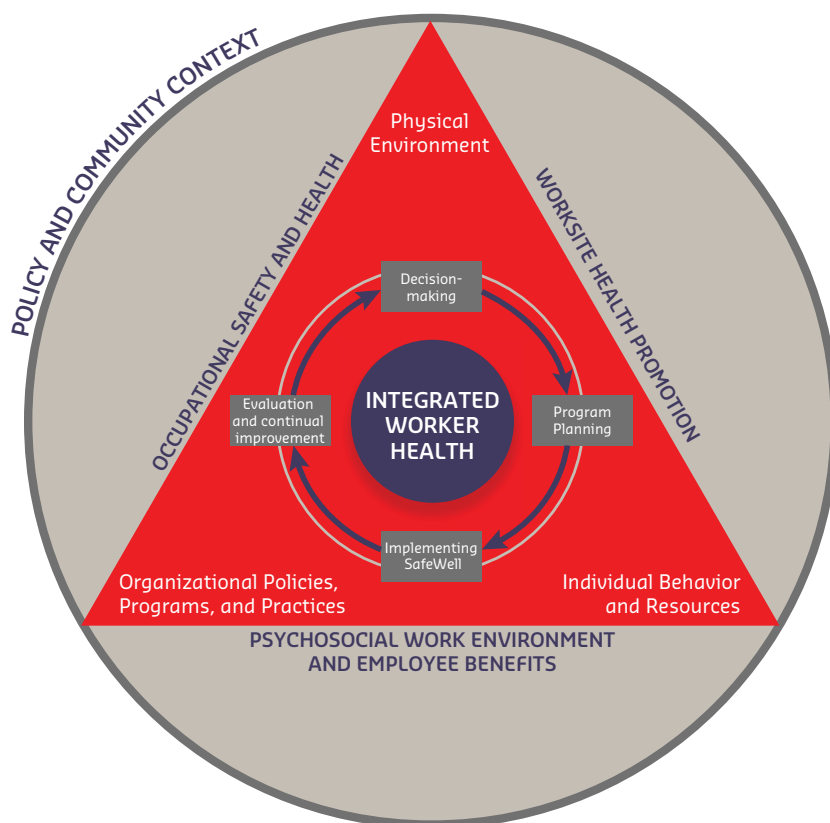
In order to reconcile this disconnection, in 2011, the National Institute for Occupational Safety and Health (NIOSH) launched the Total Worker Health™ (TWH) program, an initiative based on the integration of OSH and WHP activities. NIOSH supports TWH approaches with the funding of four extramural Centers of Excellence to Promote a Healthier Workforce, including the Center for Work, Health and Well-being (CWHW) at the Harvard School of Public Health.

Following the principles of the Total Worker Health™ program, the SafeWell Guidelines© were created to help workplaces to plan, implement, and evaluate programs that integrate health protection and health promotion. The SafeWell Guidelines© were the product of a collaboration between CWHW and Dartmouth-Hitchcock Health Care (D-H) in Lebanon, NH. The SafeWell approach acknowledges that the health and safety of workers and the

TOTAL WORKER HEALTH

social, organizational, and environmental work context are closely intertwined, and that effective workplace health programs need to address all of these areas in a synergistic way. Beyond the simple summation of health protection and health promotion, the integrated approach can result in an organizational transformation and a culture of health and safety that supports worker health, both within and outside the workplace, while strengthening the connections with surrounding communities.

The SafeWell Integrated Management System (SIMS)© provides a framework to guide planning, implementation and evaluation efforts in your organization.



Outer Circle	Macro-level contexts that exert upstream influence over workers and organizations — political, social (community) and economic circumstances.
Sides	Major areas to integrate for worker health — occupational safety and health (OSH), worksite health promotion (WHP), and the psychosocial work environment and employee benefits (HR).
Corners	Multiple levels of influence for SafeWell — the physical environment, organizational policies, programs, practices and individual behavior and resources.
Boxes	Main organizational processes that drive SIMS — decision-making, program planning, implementation, evaluation and continual improvement and communications.
Core	Ultimate goal of SIMS — to achieve and maintain integrated worker health.

Integrated worker health initiatives only deliver on their promise when supported by a business strategy with long-term visioning, leadership commitment, accountability systems and systematic management. Please see the references section for more information about the Total Worker Health™ program,¹ the Harvard Center for Work, Health and Well-being,² and the SafeWell Guidelines©.³

“Futureproofing” Your Organization

James P. Ware, PhD

One of the most difficult challenges facing any organization and its leaders is balancing the time and effort spent on current operations with those dedicated to planning for the future. And in a world where uncertainty has been replaced with ambiguity and unpredictability, future-focused planning all too often feels like a waste of time. Why plan for a completely unknown future?

Yet if an organization wants to survive and thrive over the long term, anticipating and preparing for its future is absolutely essential.

This piece offers several suggestions for getting started on “futureproofing” your organization. We first discuss the importance of thinking about tomorrow, and then highlight the absolute necessity of talking with colleagues, the staff at large, and outside experts about what the future *might* hold, and how it could affect your organization.

This is not a paper about the future per se (in our view “the future” doesn’t exist; all we can do is explore a range of possible futures, make bets on what’s most likely to happen, and be prepared to be surprised by what does unfold).

Here we identify several core business processes and practices that our experience suggests will help you get to the future, whatever shape it takes.

DON’T STOP THINKING ABOUT TOMORROW

As the television sports announcer Jim McKay once said of a star athlete, “His whole future lies ahead of him.” And of course, that’s true for all of us; one of our strongest and most common yearnings is to know what lies ahead. What’s around the corner? What’s over the horizon?

Those are interesting questions for us as individuals, but they are essential for organizations. Organizations make bets on the future every day. When McDonald’s buyers place an order for potatoes and ground beef, they do so on the belief that they know how many orders for Big Macs and fries they’ll get next week. When General Motors sets its production quotas for Chevrolet Volts, they are betting on how many cars the dealers will be able to sell a month from now.

However, those two examples are basic, tactical management decisions that depend on sophisticated market demand analysis, complex multivariate equations and a dose of guesswork. But while that kind of demand forecasting may require massive computing power, it’s simple in comparison to the need that senior executives have for understanding the bigger, broader and more fundamental trends in the economy and society.

Will the economy get better? Or worse? When? How will it affect your company? Will your business thrive or struggle? What’s going to happen to health insurance, Medicare, Social Security, climate change, unemployment, average wages? How will terrorism, violent weather, pandemics and public policy affect your business?

The truth, of course, is that no one can really know the future (in spite of what many pundits try to tell us). It has also been said that “the best way to predict the future is to create it.” However, as much as we’d all like to create our own future, that isn’t a very realistic option.

The reality facing every senior executive is that the big decisions that determine organizational health are long-term ones, with long lead times. And as much as I value organizational agility — the ability to “turn on a dime” — the truth is that no one can build a world-class workforce, or a world-class factory, or a world-class high-tech product brand in a few weeks or months.



FUTUREPROOFING

Strategic decisions are long term, and they require a solid understanding of the future. Yet, as Gary Hamel and C.K. Prahalad pointed out over a decade ago, most senior executives spend almost no time at all thinking about the future or sharing those thoughts with their colleagues.

In their classic text, *Competing for the Future*, Hamel and Prahalad reported that most senior executives spend less than 40% of their time focused on the world outside their own organization, only about 30% thinking about the next three to five years, and no more than 20% of their time talking with their colleagues about the future to build a collective view. In other words, only about 2.4% of management time (40% x 30% x 20%) is focused on building a **corporate** view of the future.¹

Most senior executives spend less than 40% of their time focused on the world outside their own organization.

RETHINKING STRATEGIC PLANNING

Historically, strategic planning was all about focusing an organization's attention on a particular marketplace and ensuring that it had the operational capabilities to compete effectively in that market segment. Most strategic plans make explicit assumptions about future trends, estimate probabilities and include educated guesses about what's going to happen.

That kind of strategic planning has traditionally embodied several fundamental assumptions that are patently false in the current business environment:

- Industry conditions are relatively stable and predictable;
- We can extrapolate current trends into the future with reasonable accuracy;
- Customers and competitors are well known and will remain so;
- Competitors play by the same basic rules that have governed the industry and its distribution channels in the recent past;
- There is one "right" picture of the future that can be predicted by the careful analysis of trends and their underlying drivers; and
- Strategic planning can be done periodically (typically once a year) as a way to step back from daily operations and be reflective about the future.

The state of business today shows how totally irrelevant and even misleading those assumptions are. What we need instead is an approach to planning that moves at the speed of the Internet, embraces uncertainty and prepares the organization to move in several different possible directions, often at the same time.

The only approach I know that meets those basic requirements is scenario planning. I believe that it is absolutely essential for workplace strategists and facilities managers to develop explicit, detailed pictures of the future right now, before the future passes them by.

SCENARIO PLANNING

Arie de Geus, Peter Schwartz and their colleagues at Shell Oil in the 1970s are generally credited with being the “inventors” of scenario planning. Schwartz was also the co-founder (and remains Chairman) of Global Business Network, today’s undisputed home of scenario planning. And if there is a “bible” of scenario planning — what it’s about, why it’s important and how to do it — it’s Schwartz’s 1996 book *The Art of the Long View*.²

Because scenarios are developed explicitly to describe a range of possibilities, they enable managers to open their minds to the inherent uncertainties in the future, and to consider a number of “what-if” possibilities.

Scenarios are stories about the future that, when taken together, describe a range of plausible future states of an industry, its markets and a particular business. Scenarios are a tool for dealing with rapid change, uncertainty and inherent unpredictability. Scenarios are not predictions of the future; rather, they are images of **possible** futures, taken from the perspective of the present.

Because scenarios are developed explicitly to describe a range of possibilities, they enable managers to open their minds to the inherent uncertainties in the future, and to consider a number of “what-if” possibilities without needing to choose or commit exclusively to one most-likely outcome.

Scenario analysis enables managers, business planners and executive teams to develop multiple options for action that can be compared and assessed in advance of the need to implement them.

An effective scenario identifies critical implications for a business and contains personal meaning for the people who build it. Scenarios are useful tools primarily because they facilitate — indeed, require — a strategic dialogue about the unpredictable outcomes of today’s rapidly changing business environment.

Scenarios are powerful tools for thinking about tomorrow. But they don’t just happen by themselves, and they aren’t a “normal” form of strategic planning. And like most meaningful management practices, scenarios demand special time and attention. Building them — and learning from them — requires an investment. Think of it like an insurance policy. What better way is there to guarantee that you’ll be an active part of the future of work?

Scenario planning depends on an organization’s ability to imagine what the future could be like.

However, scenario planning itself depends on an organization’s ability to **imagine** what the future could be like.

IMAGINING TOMORROW

Organizational imagination depends on the collective wisdom and insights of a large group of thoughtful individuals who are willing to share their perspectives and to learn from each other. In short, **the only way to develop meaningful scenarios of future possibilities is to engage in rich, extended conversations.**

Thriving in the future means holding conversations — conversations with colleagues, with staff, with customers, with shareholders, with suppliers and with representatives of every outside group that could possibly influence your future (including even competitors when you can get away with it).

FUTUREPROOFING

Yet hardly any senior executives today recognize either the importance or the value of open-ended conversation.

The most insightful analysis of the role of conversation in organizations that I am aware of was contained in a classic *Harvard Business Review* article by Alan Webber (former HBR Editor-in-Chief and the founder of Fast Company Magazine) way back in 1993. It is one of the most prescient articles about the formation of the so-called “Knowledge Economy” that I have ever read.

Conversation is at the very core of organizational “work” in today’s information-based economy.

In “What’s So New About the New Economy”³ Webber suggested that conversation is at the very core of organizational “work” in the “new,” information-based economy. In Webber’s words:

“The logic goes like this: the revolution in information and communication technology makes knowledge the new competitive resource. But knowledge not only flows through technology; it actually resides in people — in knowledge workers and the organizations they inhabit. In the new economy, then, the manager’s job is to create an environment that allows knowledge workers to learn — from their own experience, from each other, and from customers, suppliers, and business partners.

The chief management tool that makes that learning happen is conversation. But the work of conversation introduces its own twist: it brings the character of the individual to the foreground of the workplace. If the job

of the manager in the new economy is to eliminate fear, foster trust, and facilitate the working conversations that create new knowledge, then the authenticity, integrity, and identity of the individual turn out to be the most critical managerial assets.”



Webber is raising an issue about the roles and responsibilities of management that goes well beyond the current focus on talking about the future. But creating a context of trust, authenticity, integrity and curiosity about the future is certainly a precondition for having meaningful conversations about the range of possible tomorrows for an organization.

And what constitutes a meaningful conversation about the future? In our experience, an effective conversation includes:

- A commitment to listening and learning;
- Equal attention to the content and the emotions being expressed;
- A willingness to be open, candid and truthful regarding your intentions and perceptions;
- The avoidance of criticism; identify different perspectives by asking questions, not by making assertions;
- Paying attention to the body language and tone of voice of the other participants; and
- A willingness to make commitments to future action based on the current conversation.

The most important thing to remember is that a genuine conversation involves give and take: sharing your own ideas *and* absorbing those of others. As that great American philosopher Yogi Berra once said, “We couldn’t get a conversation going; everyone was talking too much.”

Remember, too, that “talking about tomorrow” is not about “figuring out” **the** future. Never forget that the future doesn’t exist yet; you and all the other people on the planet are creating tomorrow, one day at a time.

That said, the vast majority of organizational conversations focus on the present or the past, and on internal issues. But talking about tomorrow involves inquiry into broad, general questions about the unfolding external environment. In those conversations, be sure to pay close attention to the “unknowables,” those uncertainties about the future that cannot be resolved today but that you believe will have a major impact on your organization down the road.

Because you are paying attention to which unknowns are becoming less uncertain, you’ll also know which of the alternative future scenarios are becoming more likely.

Meaningful conversations about the future will, over time, create a trusted community — a community that includes not only direct employees but external business partners and a broader circle or “ecosystem” of independent thought leaders as well. Futureproofing is about sharpening your peripheral vision through meaningful dialogues that leverage the diversity and many insights of your entire ecosystem.

*Futureproofing is about sharpening your **peripheral vision** through meaningful dialogues that leverage the diversity and many insights of your entire ecosystem.*

To get started, develop a “map” of your key relationships and stakeholders (both internal and external); identify existing relationships and interactions, and then work to create the conversations that are not happening but should be. Form an External Advisory Board of independent thought leaders and futurists. Think through:

- **Who** to have conversations with about the future;
- **What to talk about** (but leave plenty of room for spontaneity, too); and
- **What questions to ask** (and to keep asking over time).

Finally, a caveat: it can be very difficult to build a culture and capability focused on conversations about the future on your own. The most effective future-oriented organizations we know regularly engage with external experts and skilled group facilitators to help them have those conversations and build strategic planning processes that keep them focused on tomorrow. Whatever you do, don’t go it alone.

Creating Jobs of the Future: No Crystal Ball Needed



Cynthia G. Wagner

Adapted from the “70 Jobs for 2030”

Special Section in the January–February 2011 issue of THE FUTURIST

We can think about our “jobs” as how we earn a living, how we spend our time, or how we find inspiration, but one thing is sure: the nature of jobs is changing along with the corporations, societies and environments in which we work.

In February 1984, THE FUTURIST published one of its most popular articles ever: “Emerging Careers: Occupations for Post-Industrial Society” by psychologist and career counselor S. Norman Feingold. What made the article unique among all of the “how to get a job” pieces that regularly appear in magazines was the focus on trends that were reshaping the world of work and how individuals could use these ideas to shape their own futures.

The trends that Feingold was tracking at the time included the advancing information and communication technologies that were improving office productivity, as well as the opportunities created by medical breakthroughs and the challenges associated with resource depletion.



The principles on which Feingold based his forecasts for tomorrow’s job titles are still sound. The emerging careers he identified (such as genetic counselor, ocean hotel manager and artificial intelligence technician) all would develop from preexisting career areas and would become possible through advances in technology, changes in the environment and other megatrends. And the jobs he described were not just momentary fads, appearing and disappearing over a very short period of time.

So with this in mind, the editors of THE FUTURIST felt it was time to revisit some of the megatrends shaping tomorrow’s careers and invited several experts and World Future Society members to contribute their thoughts.

Interestingly, many of those megatrends from the early 1980s are still very active: environment and resource issues, accelerating technological development and the drive to explore the frontiers of ocean and space. So, though many of Feingold’s forecasted careers are well established (solar energy research scientist, laser technician, aquaculturist), new opportunities are still likely to emerge in these same areas.

FUTURING FOR JOB CREATORS

One of the easiest ways to begin thinking about future careers is to focus on what may be a problem in the future and invent a job that will solve it. We can do this through trend analysis, applying trends to functions that will need to be performed. Many functions will be more automated in the future, including professional services, but people will still find creative ways of using their skills and talents to make a living.

Here are three basic approaches:

1. **Retrofitting:** Adding new skills to existing jobs.
2. **Blending:** Combining skills and functions from different jobs or industries to create new specialties.
3. **Problem solving:** Necessity is still the mother of invention, and the supply of future problems for people to solve seems limitless.

RETROFITTING: APPLY NEW TRENDS TO CURRENT CAREERS

A number of trends suggest opportunities where new careers could be retrofitted onto existing occupations. For example, what kinds of jobs can be done by telecommuting? Technological advances as well as social change will create opportunities for jobs that you wouldn't normally think could be done remotely. Can a police officer, for instance, be effective while telecommuting? Yes, if it means strengthening ties to his/her own community. Job title: **Telecop**.

What kinds of jobs can be retrofitted with the goal of reducing one's environmental impact? **Green career coaches** could advise employers/workers about the environmental impacts of their tasks. How could you make beauty salons more eco-friendly? Department stores? Office supply stores?

Energy harvesters will combine construction and engineering to collect the kinetic energy of

humans through the materials they come in contact with, from floors to everyday objects, and even clothing. The power created by a single individual could operate his or her personal devices; the power collected by a group (office workers, apartment dwellers) could run a city block.

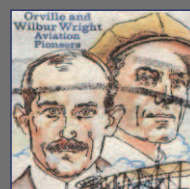
Another trend that could retrofit existing occupations is the growing incorporation of sensors, batteries and other technologies into textiles, such as for our clothes. How are "smart textiles" going to be cleaned or altered? Drycleaners may need to retrain themselves in handling electronics. Tailoring/garment customization will include not only design details but also communications customization.

The same issues will also affect transportation systems and infrastructure, as they become increasingly embedded with new technologies. Job titles could include **smart road designer/engineer, sensor control monitor/analyst, smart car interior designer**, and **smart car interior advertisement sales representative**.

Doing What You Love

An additional way to create an emerging career is to monetize your passion: Do what you love.

Two brothers, Wilbur and Orville Wright, made bicycles for a living, but they were fascinated by the possibility of flying machines.



In 1903, they succeeded in building the first successful airplane, thus creating a new job for themselves — and eventually jobs for thousands of other people.

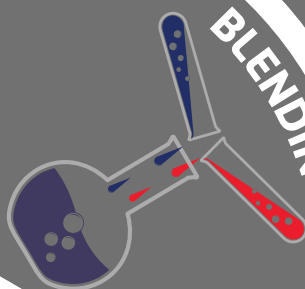
—Edward Cornish



PROBLEM-SOLVING



BLENDING



RETROFITTING



30 Jobs for 2030

BLENDING CAREERS

Another way of looking at trends from a future-career perspective is to make connections among two or more different areas. For instance, blending work in human and environmental health resulted in the emerging field of **environmental health nursing**, which involves treatment of patients exposed to toxins.

You may be a wonderful sales person but currently working in an industry that is in decline. By focusing on your transferrable skills (persuasiveness, interpersonal communications) as well as your interests (singing, painting), you may be able to create a new occupation in an industry on the rise. Perhaps you would lead music-therapy programs in hospitals or nursing homes as a **clinical choral consultant**.

While some may not view a return to an agrarian economy as “progress,” we have seen a surge of interest in organic and local farming. Today, many urbanites subscribe to a favorite orchard or farm for their supplies of fresh, healthy foods. Merge this with a trend (or perhaps simply a fad) in celebrity chefs, and you have opportunities for **agri-restaurateurs** (or **chef-farmers**).

We also see more agricultural activity taking place within cities themselves; people may increasingly choose to spend less time in monetized work (“jobs”) and more time producing food for their own and/or their community’s needs.

Another “blend” opportunity is to become a specialized generalist. For instance, if you want to be a journalist, you could become a specialized one in a growth sector such as health. Opportunities right now are in business journalism, particularly the finance and investment categories. Look for growth in health and medicine journalism and communications.

Some critics have feared a media future where anyone can write (or create content) for the public without any training or experience in communications theory, ethics, law, and so on. But there will still be a market for ideas and news — i.e., information — that is authoritative, balanced and useful. This authority-journalism may come from professional experts (e.g., neurosurgeons, astrophysicists, financial advisers) who do cross-training in journalism. They’ll assure audiences of their accurate reporting (they’ll get the facts right), and they’ll communicate in language that everyone can understand. And that’s all good, even if traditional outlets for “journalism,” like newspapers and broadcast news, disappear or transform into new platforms.

Journalism schools will evolve with these changes; the City University of New York, for instance, has introduced a master’s degree program in entrepreneurial journalism that will prepare students for the business and technological environments in which they will be working.

PROBLEM-SOLVING AS CAREER OPPORTUNITY

The communications age brought with it a host of unexpected problems, most notably privacy and security. Facebook and Twitter keep us connected but also vulnerable, often to our own missteps. Enter the new world of digital footprint management.

Elizabeth Charnock, author of *EHabits: What You Must Do to Optimize Your Professional Digital Presence* and CEO of the digital analytics firm Cataphora, suggests that new career opportunities are rising for those who would help you manage your online image by correcting your blunders. Others (such as prospective employers, political opponents, or spurned lovers) may pay good money to dig up that which you tried to bury, such as an impulsively sent e-mail deriding your co-workers. Job title: **digital archaeologist**.

JOBS OF THE FUTURE

Bridging the remaining gap between what our technologies can do for us and what they cannot do is another rich area of problems to solve. As business futurist Edie Weiner has pointed out, science's growing understanding of the human brain is a major area of potential economic growth for the future, whether the goal is to create artificial intelligence or to enhance human lives.

PUTTING IT ALL TOGETHER

It has been said that “futurist” is (or should be) everyone’s second profession, but for many it is their first profession. Futurist was a featured job title in the U.S. Bureau of Labor Statistics’ *Occupational Outlook Quarterly* (Spring 2009), which explores a variety of unique job titles in its “You’re a What?” series.

Professional futurologist Ian Pearson, formerly an engineer with BT Laboratories, describes some of the problems that futurists face when explaining what they actually do for a living.

“The most common [misconception] is that it can’t work — no one can predict the future. Ergo, I must be an idiot and wasting their time,” he said in an interview with the blog Vault Careers. “In fact, many things are quite predictable, such as progress in technology, and many of the impacts of that technology are pretty obvious too when you think about it.”

Where futurists may be able to make themselves most useful in the future would be as what Janna Quitney Anderson described in the January–February 2010 issue of *THE FUTURIST*: “Maybe what we need is a new employment category, like **future-guide**, to help prepare people for the effects of disruptive technology in their chosen professions so they don’t find themselves, frankly, out of a job.”

THE LIST: 30 JOBS FOR 2030

The following are 30 sample emerging job titles identified by over a dozen leading futurists; we hope the ideas discussed in the section will stimulate your own thinking about the future and the jobs that may be needed in the decades ahead.

- Augmented reality architect
- Autonomous vehicle operator
- Avatar relationship manager
- Chef-farmer (agri-restaurateur)
- Chief experience officer
- Digital identity planner
- Digital archaeologist
- Energy harvester
- Environmental health nurse
- Financial technologist
- Future-guide
- Global sourcing manager
- Global system architect
- Grassroots researcher
- Green career coach
- Healer
- Office concierge
- Online community organizer
- Organizational quartermaster
- Personal brand manager
- Personal care coordinator
- Plant psychologists
- Post-normal jobs counselor
- Residence technician
- Seed capitalist
- Smart road designer/engineer
- Talent aggregator
- Terabyte (lifelogger)
- Transhumanist consultant
- Wiki writer

30 JOBS FOR 2030: SELECT DESCRIPTIONS

Chief Experience Officer (CExO): Reporting to the chief executive officer, this C-Suite player will oversee a wide variety of functions, from marketing and sales to human resources. The CExO will be responsible for all of the experiences offered, to both employees and customers, and for the outcomes. This position will be created because businesses will have realized that, for all of the stakeholders of any enterprise, “It’s about the experience!” Whether it’s the experience of being an employee or the experience of being a customer, people will decide to be associated with companies based on how it feels. Offer a good experience and the company will prosper.

Energy Harvester: While the search for ways to store the energy from heat and vibrations has been going on for many decades, energy harvesting is also motivated by a desire to address the issue of climate change and global warming. Other applications are in wearable electronics, where energy harvesting devices can power personal devices such as cell phones or computers — or can be even broader in their reach — whereby the power collected by a group (such as the workers in a building) could power the local football stadium.

Office Concierge: As work and workers become increasingly mobile, commercial office space will be transformed. There will be many more kinds of workspaces (and hopefully no more cube farms). Individuals’ “home base” offices will most likely be home offices; they will “rent” space on a short-term, as-needed basis in corporate facilities. The office concierge will be much more than a space reservation clerk; he or she will proactively help managers and teams determine what kind of space they need for which time periods, and will direct the rearrangement of desks, chairs, technology and even walls, to meet the specific individual and collaborative needs of the workforce. The concierge will also be a source of information about local resources — not just caterers but also team

facilitators, graphic recorders, production specialists and any other extra talent the workers may need.

Talent Aggregator: Large organizations will continue to shrink down to their essential core functions, depending on contractors, outsourcers and contingent laborers to get needed work done. The entire economy will become more project-based, much the way Hollywood now assembles cast and crew for movie productions. Talent aggregators will maintain databases on thousands of independent “free agents,” assembling (often on short notice) the talent needed for any given project.

Personal Brand Manager: Because most people will hold many jobs over the course of their working lives, personal brands will become as important for individuals as product brands are today. Personal brand managers will serve as talent agents, coaches and scouts — helping individuals plan their careers, match their skills and preferences to jobs, seek out promising opportunities, evaluate their successes and failures, and “package” their personal brands. Brand managers will also act as personal coaches and career managers for their clients.

Global System Architect and Global Sourcing Manager: National systems are transitioning into global systems. Architects of these new global systems will play a crucial role in future world affairs. As the economy becomes more global, organizations will have many more choices to make about where to get what resources — whether they be physical, informational, or human. A global sourcing manager will be a logistics expert who understands supplier relationship management, energy costs and tradeoffs, international customs requirements and other legal factors, overall cost considerations and project deliverable timelines. The complexity of where, when and how material and people must come together to produce value will require expertise that is both broad and deep.

JOBS OF THE FUTURE

Organizational Quartermaster: Just as the global sourcing manager will sort out supply chain logistics for making and distributing both physical and informational products, the organizational quartermaster will provide staff (and contractors) with the resources they need to get their work done — whether it is technology, Web access, office space, office supplies, training other employees, or any of the many other things it takes to produce work effectively and efficiently. The quartermaster's job, like that of a military quartermaster, is to ensure that the mobile and widely distributed "troops" (the workforce) have what they need, when and where they need it, and at a reasonable cost to the organization. This job will combine what we know today as end-user computing, workplace services, employee training, project management, talent management and purchasing, for starters.

Personal Care Coordinator: By 2018, one out of every 10 American jobs will be in the health care management and technology sector. This explosive growth is due primarily to an aging population and expanding coverage. One new job title may arise in the next 20 years is the personal care coordinator. This person will serve as the bridge between the individual and all of the healthcare organizations and services that will provide personal care to him or her. The personal care coordinator will understand the

complexities of the modern health care system and will also be familiar, on a granular level, with each client's unique health care situation and history. This individual will have all records at his or her fingertips electronically, and the coordinator's presence will ensure that all providers work together to ensure the best possible patient outcome.

Chef Farmer or Agri-Restaurateur: These occupations will grow out of the trends of chefs desiring the use of local, seasonally grown and organic foods, to complement their culinary repertoire. Chefs and farmers will work together on seed development, enhanced produce growth and products, based on customer demand created largely by the creativity of the chef's menu. Food will be harvested in a timely fashion — to be ready for consumption at peak freshness and ripeness levels.

Residence Technician: A combination of today's appliance repair person, alternative energy capture, and HVAC and medical equipment technician, the residence technician will be responsible for all of the house systems. This wide responsibility will include monitoring the health statistics of the residents and controlling the heating, air conditioning and ventilation of the building, especially ensuring that the solar panels and/or wind turbines are in good working order. The systems will work together to maintain the health and well-being of the inhabitants.



Conclusion

Lisa Larsen Hill

This year's **Workplace Trends Report** drives home the importance of understanding and solving for human needs when designing workplace services and solutions. This lens includes viewing individuals and organizations both holistically and dynamically. Sodexo's Innovations 2 Solutions team specializes in advancing and innovating around quality of life solutions. Through its research and reporting, I2S understands that to truly be engaged and productive, people need to feel that their employer provides an environment that allows them to bring their best to work every day.

While the "ideal" workplace varies across individuals and organizations, one thing is certain — with the continued trend of companies adopting flexible work arrangements, it will be even more important in 2014 and beyond, that organizations consider how to keep employees energized and engaged when they do choose to go "to the office." Conversations in the C-Suite are increasingly about creating an **experience** as the future of the workplace, and the comprehensive, human-centric solutions that are advancing today's workforce.

From designing health-centered workspaces and buildings, to implementing wellness programs that incorporate new regulations under the Affordable Care Act, the importance of adopting a holistic perspective on employee well-being continues to be emphasized in this year's trends report. This includes shifting toward workplace practices that emphasize the psychological as well as the physical well-being of employees. We see this especially with communication technology — while employees agree that technology makes them more productive and allows for greater flexibility, forward-thinking organizations are beginning to reevaluate some of their practices and provide employees with resources that help them avoid some of the potential downsides of the "always on" workplace.

Technology also continues to play an integral role in engaging employees and improving productivity, and we see gamification techniques increasingly being incorporated to improve these outcomes as well as other organizational imperatives. From a facility management and construction perspective, technological advances occupy a distinct but equally important role. The concept of "working smarter" now applies to not only employees, but also buildings, as managers search for ways to make buildings more efficient and cost-effective in the face of rapidly escalating energy and other operational costs. The next generation of construction and facility management is expected to support organizational sustainability, while improving performance of the organization's core mission.

Amidst the ever-changing landscape of today's workplace, we hope this report provides a thought-provoking glimpse into the future of work. To be successful, organizations need to be agile enough to quickly respond to new trends and strategies. The most effective organizations are having meaningful conversations about the future, regularly engaging with external experts to help them have those conversations, and building strategic planning processes that keep them focused on tomorrow — producing the best possible outcomes for all stakeholders involved.

Sodexo's I2S team will continue to research and report around workplace trends, as these valuable conversations provide insight and understanding, as we assess our clients' business needs, synthesize and design holistic experiences, and innovate with purpose — ultimately leading to transformation. Keep up-to-date on market-relevant research, data and insight into workplace industry trends — our Innovation & Insights mobile app is a single source for emerging thought leadership for Corporate Real Estate, Facility Management, Human Resources and Supply Management professionals. Download it for your iPad at <http://bit.ly/Sodexoinsight>

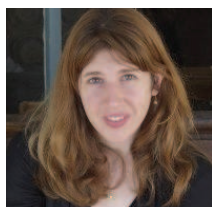
Appendix

WORKPLACE EXPERIENCE

A CoreNet Global and Sodexo Survey Research Project November 13, 2013

Note to Readers: These research findings are provided to Workplace Professionals to help decipher the definition and importance of Workplace Experience on organizational outcomes.

Researchers



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Business and Industry, Innovations
2 Solutions, Sodexo



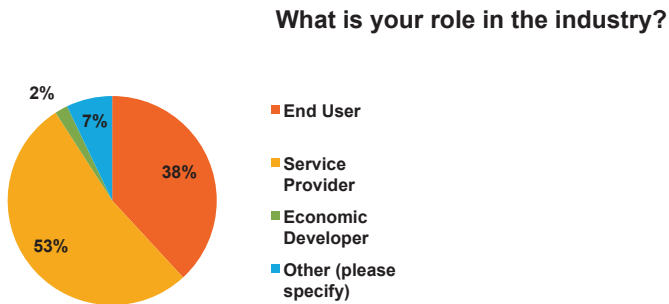
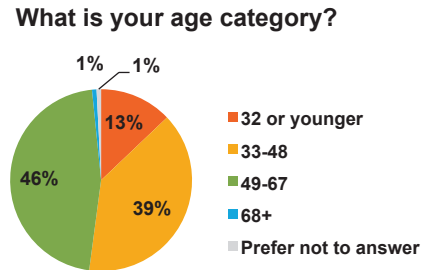
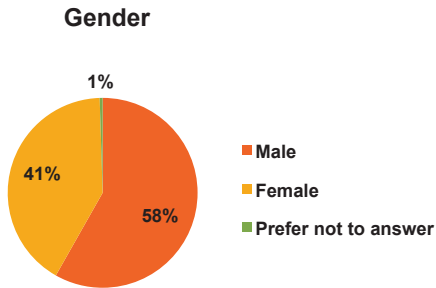
Kevin L. Rettle, FMP
Director of Insight and Innovation,
Innovations 2 Solutions, Sodexo

About the Survey

(Data collected July – August 2013)

- 488 Respondents
- 1st Survey (to our knowledge) to attempt to define Workplace Experience (WE)
- Quantifies Physical Environmental Factors Contributing to Workplace Experience
- Work-Related Quality of Life (W-RQoL) is central to Workplace Experience

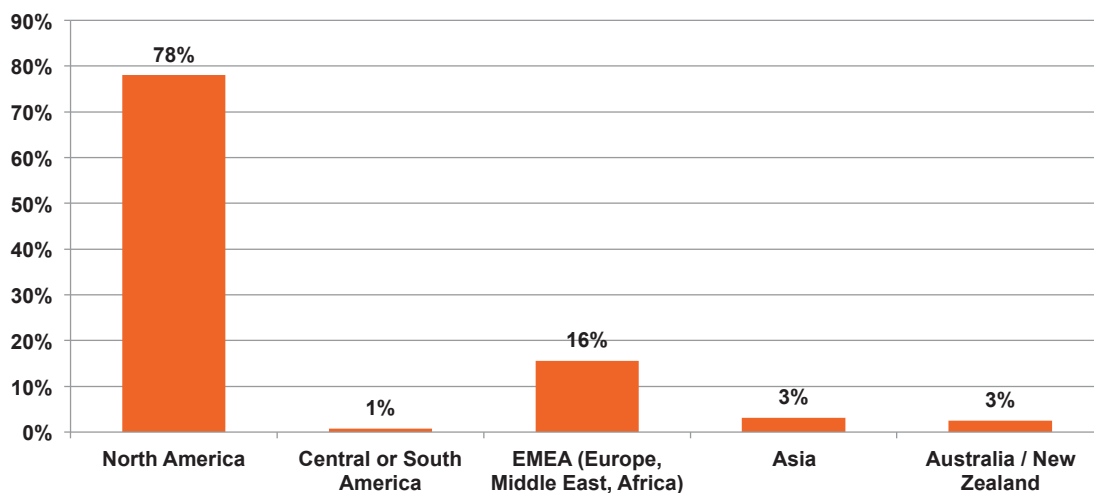
Respondent Demographics



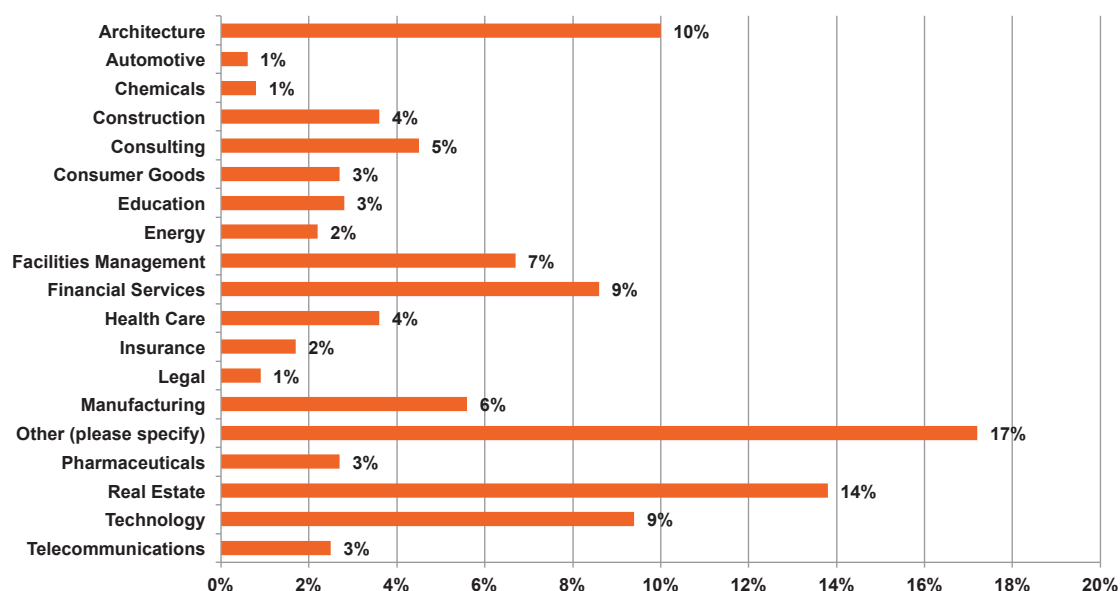
Some of the “other” responses we received were:

- Academic
- Business Analyst
- Researcher

Where is the Headquarters (HQ) of your company located?



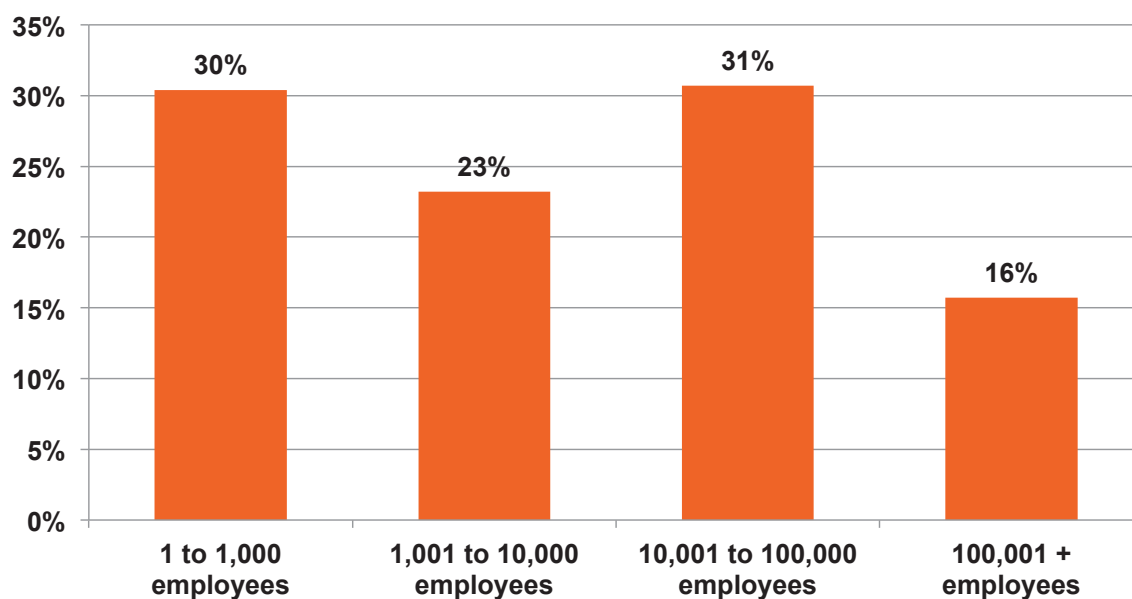
To which industry sector does your company belong?



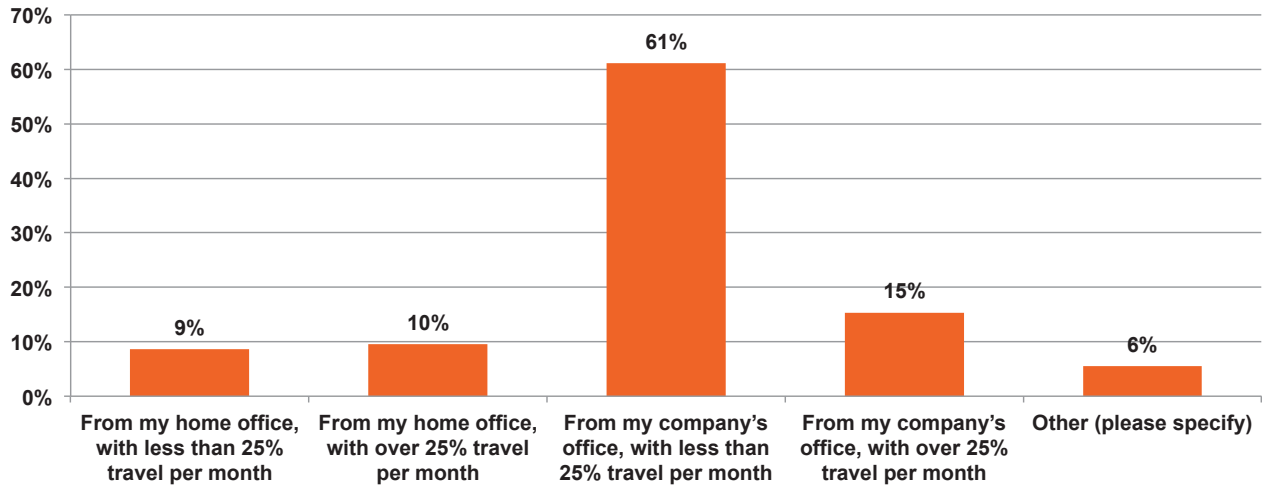
Some of the “other” responses we received were:

- Hospitality
- Government
- Transportation

What is the size of your company?



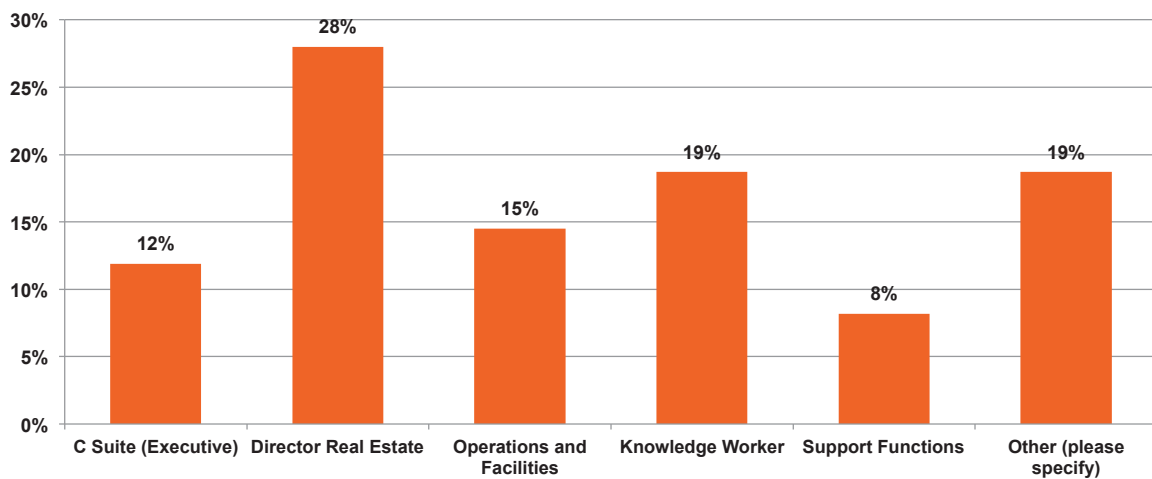
During an average week, do you work:



Some of the "other" responses we received were:

- Hospitality
- Government
- Transportation

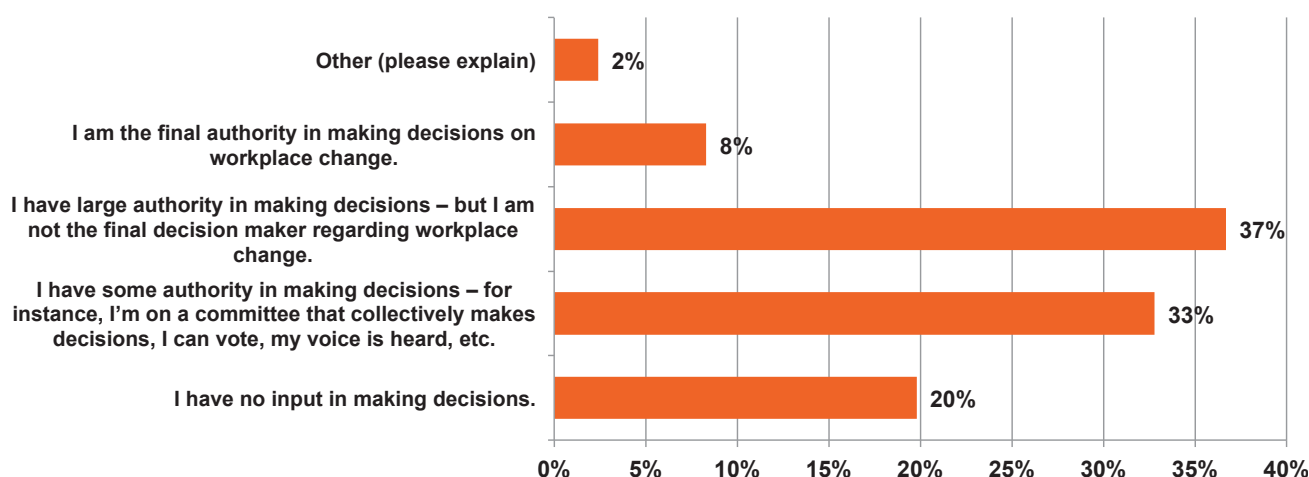
What is your designation?



Some of the "other" responses we received were:

- Business Development
- Principal
- Sales
- Lease Negotiation Manager

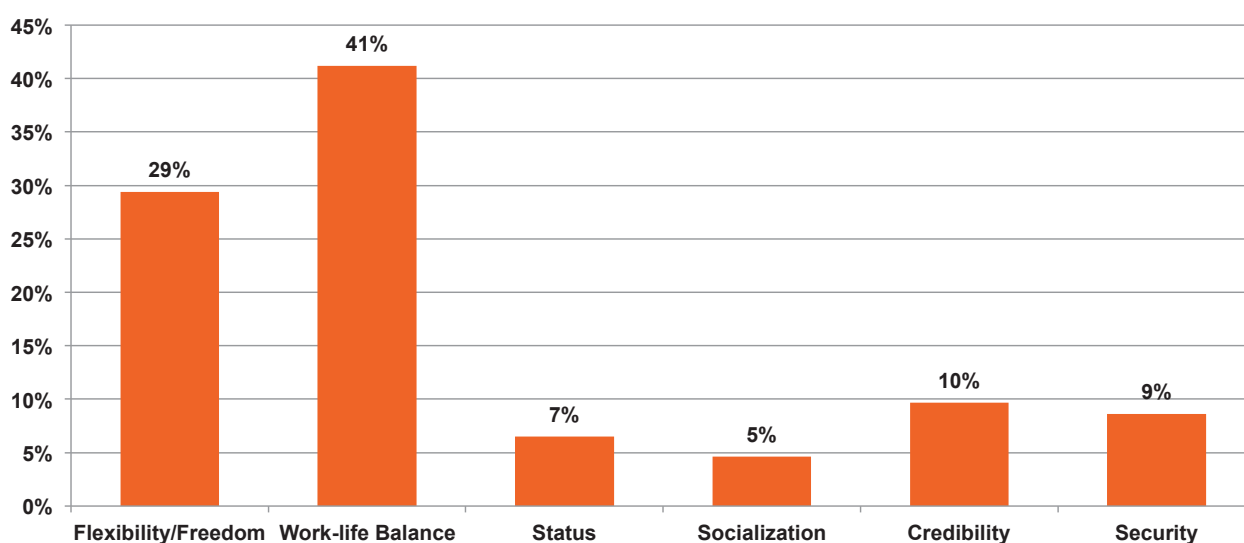
What role do you play in making decisions regarding substantive changes in the workplace environment in your organization?



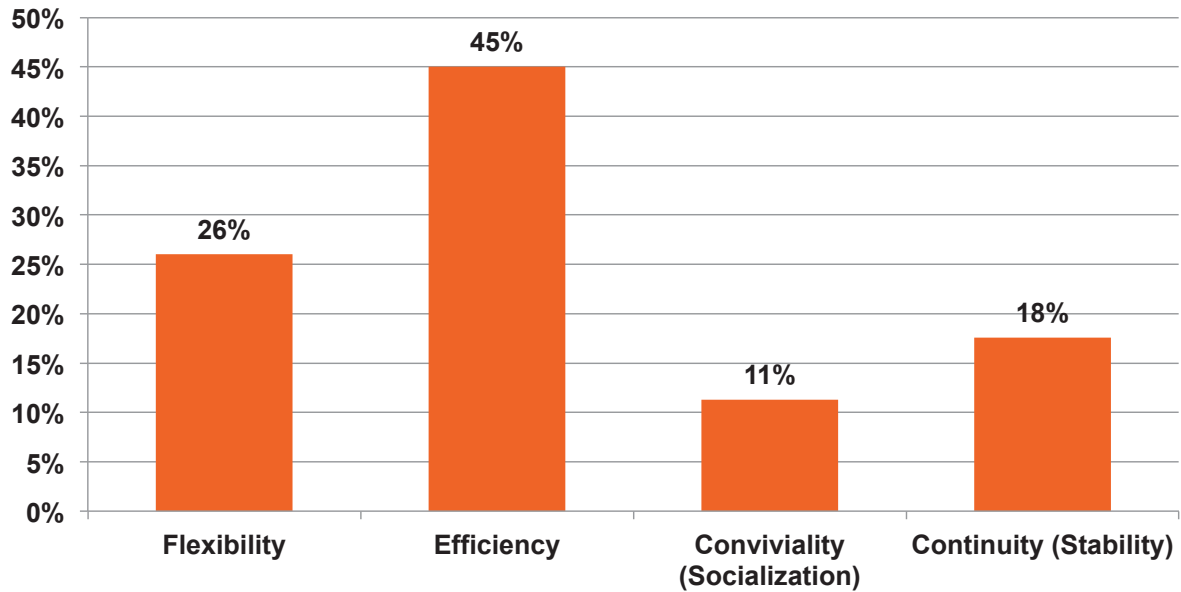
Some of the “other” responses we received were:

- I am given the opportunity to comment and make suggestions through surveys.
- We have a collaborative decision-making approach in our culture.
- Our client makes most of these decisions. We have limited influence.

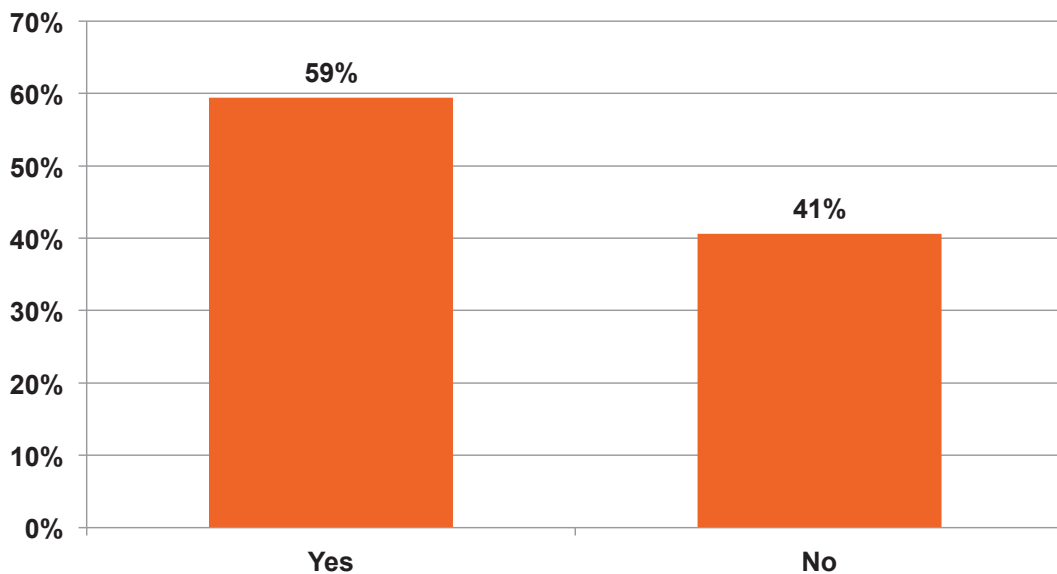
If you think about the people in your company/organization as a whole, which of the following “needs” do you believe is most prevalent among them?



If you think about your company's environment, specifically about your Headquarters, which of the following characterizes your company's most important core "need" to function most effectively?



To your knowledge, does your organization have a mandate to improve the workplace experience of its employees?



Could you define WORKPLACE EXPERIENCE?

Over 2/3 of survey respondents said they could



Creating a Great Experience Means

Accounting for the **EMOTIONAL** as well as the **RATIONAL** expectations of people.

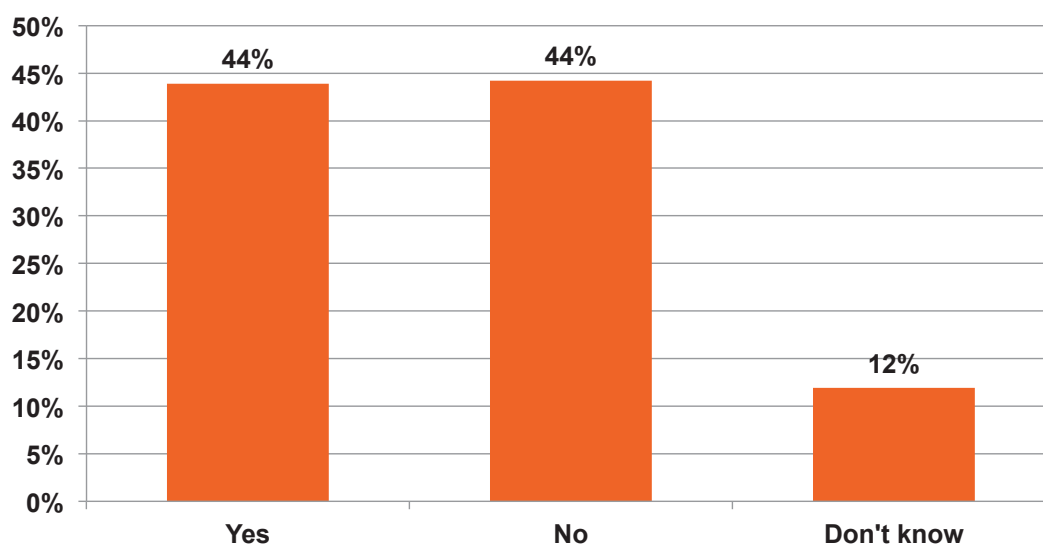


Could you define WORKPLACE EXPERIENCE?

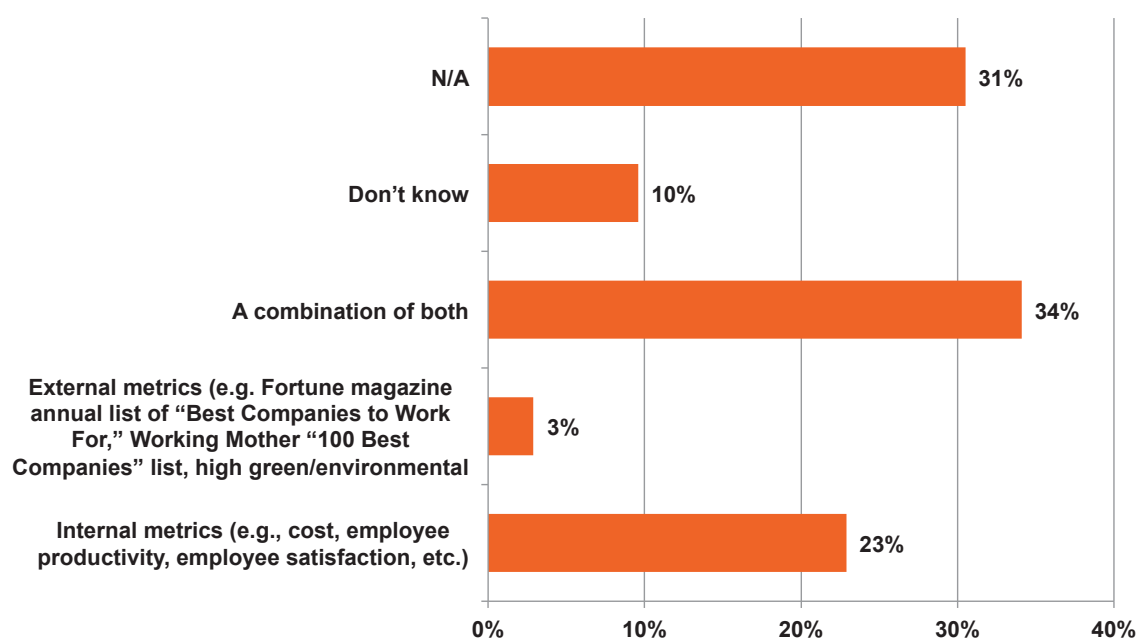
Here's what respondents said:



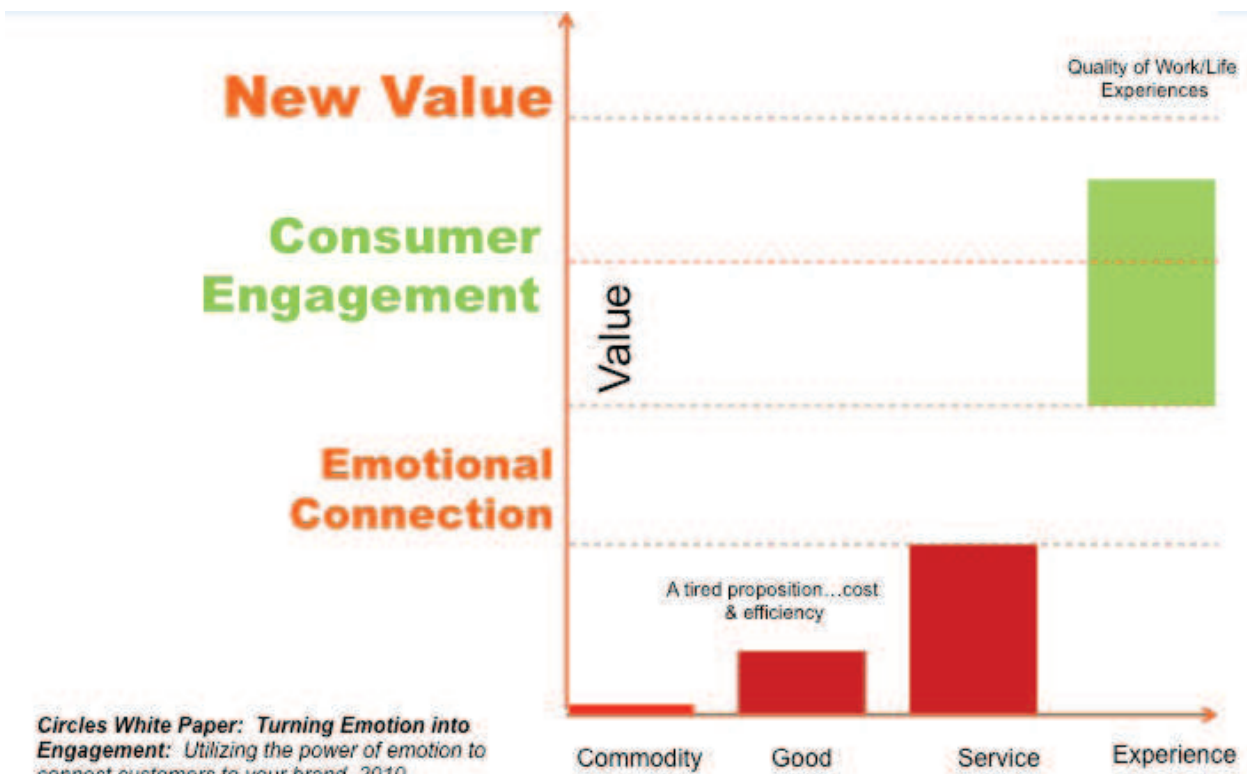
Does your organization uses a metric to measure success of the workplace environment?



If Yes, are these:

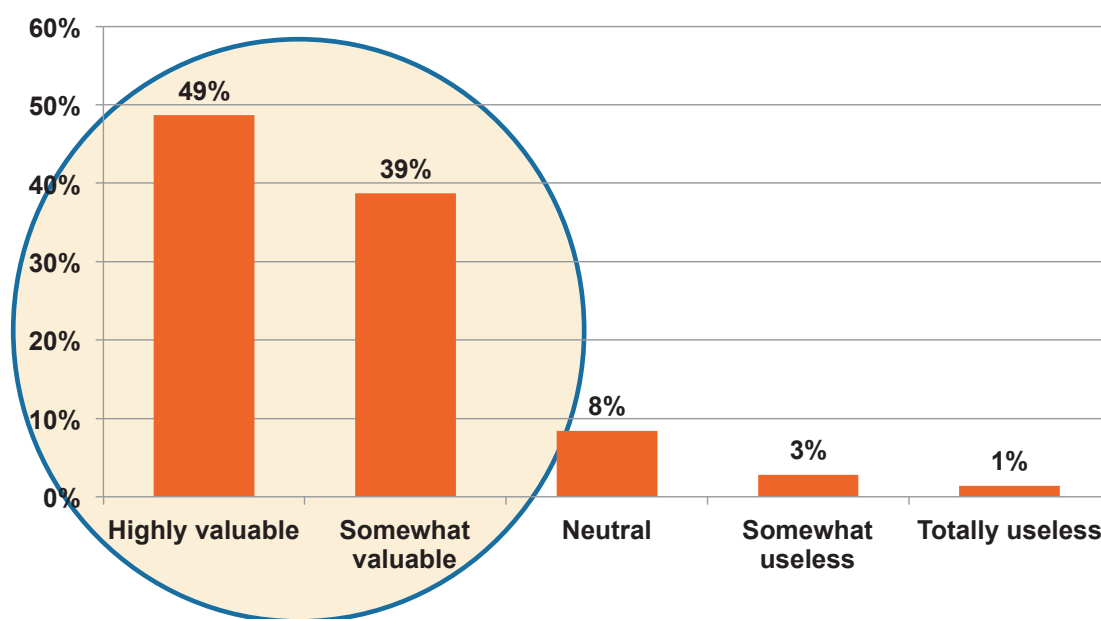


Re-Thinking Value through New Experiences

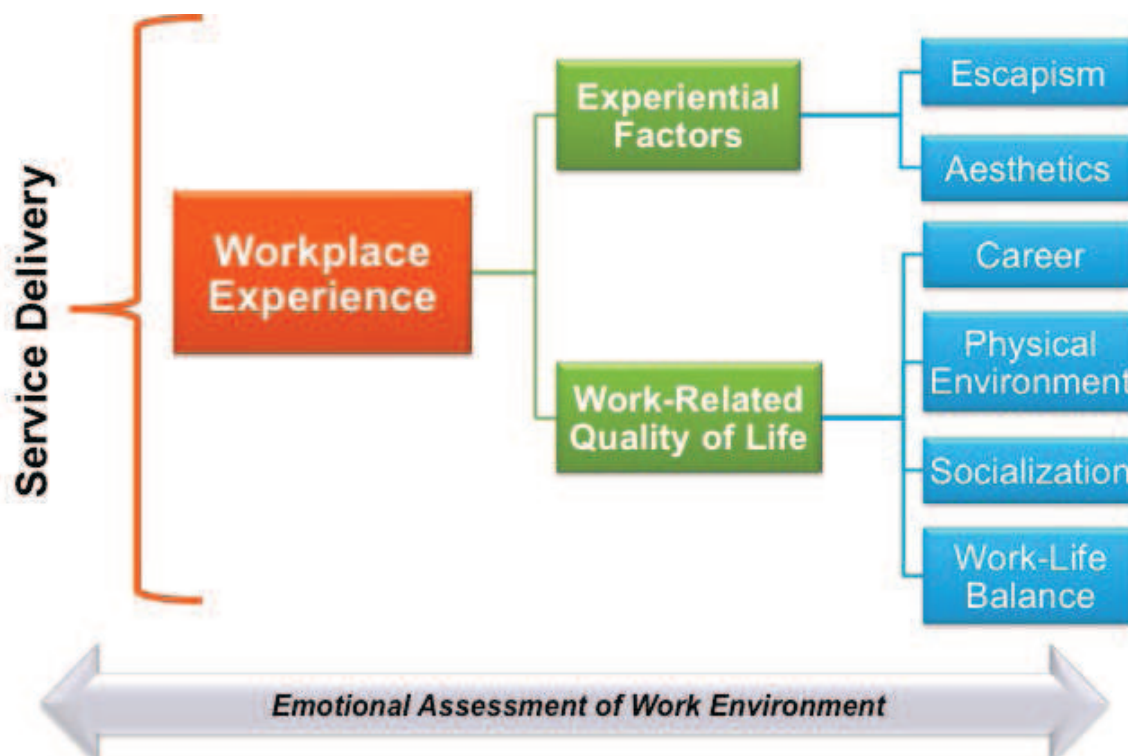


APPENDIX

In general, would you think an index measuring Workplace Experience and its impact on employee productivity would be:



Workplace Experience Framework by Sodexo©

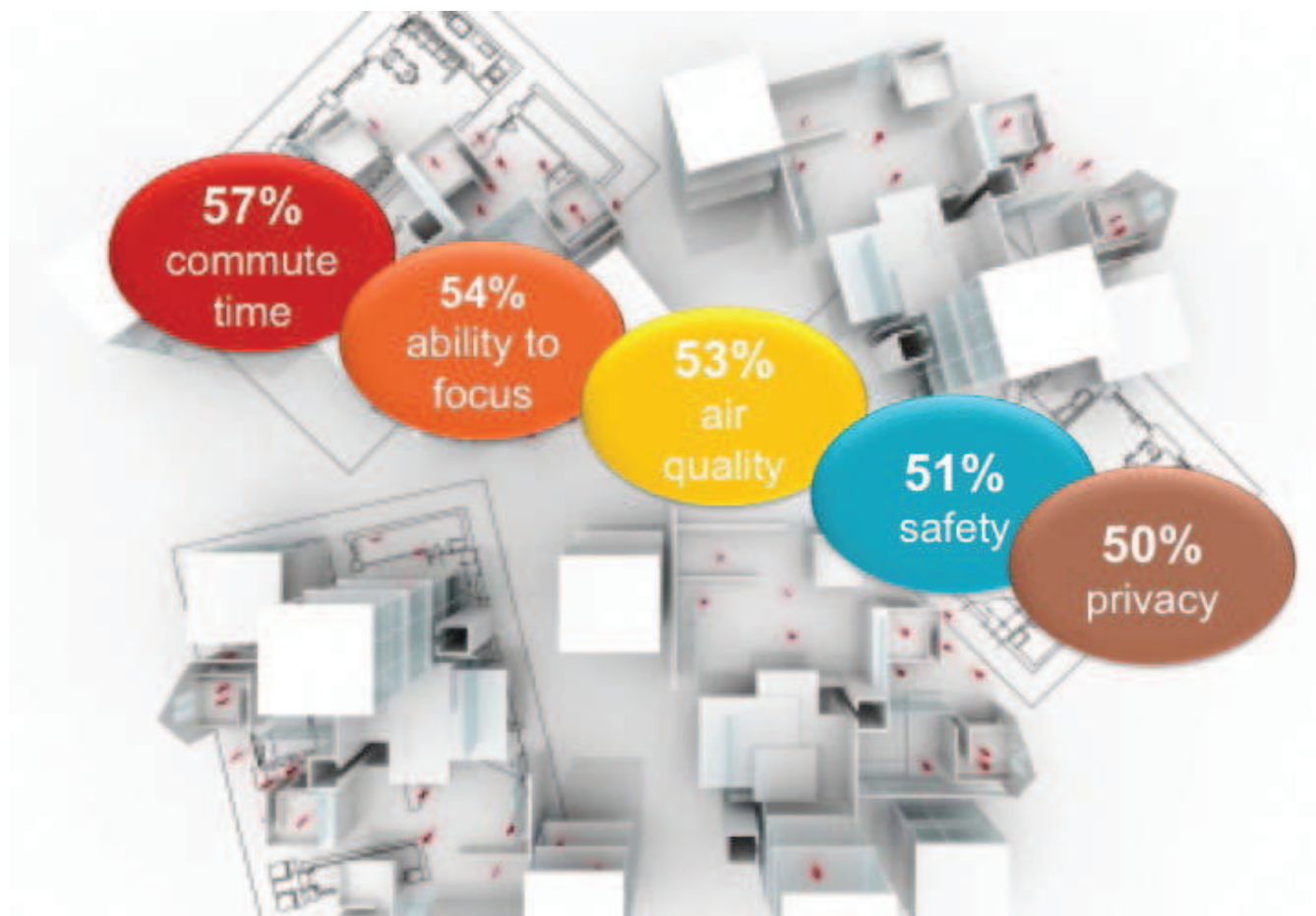


Work-Related Quality of Life Drivers



Physical Space Contributors to Quality of Life

(% who Strongly Agree)



Note: if you wish to cite this report, please use the following citation:

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Meet the Authors



Guilherme Trivellato Andrade is a Global Health Scholar in the combined Master of Public Health/Master of Business Administration Program at Johns Hopkins University. Prior to joining Hopkins, he co-founded and served as a CEO for B.well, a Brazilian social enterprise

focused on workplace health promotion and well-being. He has also consulted with organizations from the private, public and third sector in programs aimed at promoting healthy behaviors and preventing non-communicable chronic diseases.

As a physical therapist by training, he combined roles as a manager and entrepreneur with clinical practice and teaching in Biomechanics and musculoskeletal injury prevention. Working at the intersection of health, business, education and research, he advocates the value of keeping people healthy, and serves as a change agent to foster collaboration and drive innovations in population health management.



Gary E. Bacher, JD/MPA, Founding Member, Healthsperien, LLC currently serves as Director of AHIP Foundation's Institute for Health Systems Solutions and as Founding Member of Healthsperien, LLC. Gary Bacher brings more than a decade of leadership

in health care, operating at the intersection of public policy, law, regulatory affairs and business development. He has specific expertise in managed and organized systems of care, Medicare and Medicaid, and health care reform. He focuses on

strategic and creative problem solving and innovation, and as of late has been particularly focused on health system transformation, including the creation of health care exchanges and the integration of care delivery and payment models across acute, post-acute and long-term care settings. Previously, Gary served as Of Counsel in Mintz Levin's Health Law Practice and as Senior Vice President at ML Strategies, the firm's consulting affiliate. Gary has also served Senior Vice President at America's Health Insurance Plans (AHIP), where he led the Association's policy development work on health care reform and regulatory implementation. Prior to AHIP, Gary served as Vice President of Public Affairs at UnitedHealth Group, and worked on a range of business development, legal, regulatory and public policy issues. Gary holds a JD from Stanford Law School, an MPA from Princeton University's Woodrow Wilson School and a Bachelors' degree from Georgetown University's School of Foreign Service. He is admitted to the District of Columbia and New York Bars.



David W. Ballard, PsyD, MBA, currently serves as assistant executive director for organizational excellence at the American Psychological Association (APA). In this role, he oversees all activities related to APA's Center for Organizational Excellence, which works to enhance the

functioning of individuals, groups, organizations and communities, through the application of psychology to a broad range of workplace issues. The Center houses APA's Psychologically Healthy Workplace Program, a public education initiative designed to engage the employer community and promote programs and policies that enhance employee well-being and organizational performance. Dr. Ballard has provided research, consultation and training services to government agencies, corporations, medical schools and universities in the areas of workplace

MEET THE AUTHORS

health and productivity, public health, prevention and health care finance, and has experience in management, marketing and consumer research. He is currently on the Boards of Directors of the Health Enhancement Research Organization and The Health Project/C. Everett Koop National Health Awards and is a member of the external advisory board for the Mayo Clinic Center for Social Media. Dr. Ballard received his doctorate in Clinical Psychology and his MBA in Health and Medical Services Administration from Widener University, where he completed concentrations in organizational and forensic psychology.



Dr. Charlene W. Bayer is the Chairman and Chief Science Officer at Hygieia Sciences, founded to commercialize her technology for detecting human diseases from breath and her indoor air quality research. She is a Senior Research Fellow for Materials and Healthy

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Toby Beresford is founder of Leaderboarded.com, the world's leading universal digital scoreboard application. He is a thought leader within the gamification community, writing a regular blog at GamificationOfWork.com. He is the founding chair of

GamFed.com, a non-profit international gamification confederation aimed at improving best practices within the industry. Toby also regularly appears on television programs as a digital media expert, for instance on the UK's Channel 5 News and Sky News (Fox). Prior to founding Leaderboarded, he developed and sold Nudge Social Media, a specialist Facebook agency working on social games for major brands such as Sony Playstation, Unilever and Reckitt Benckiser. Toby welcomes new followers on his twitter account: @tobyberesford.



Joshua P. Booth, JD/LLM, currently serves as a health care attorney and policy consultant at Healthsperien, LLC. His practice focuses on health insurance regulation and health care reform implementation. His goal is not only to provide clients with concrete

advice around specific issues, but also to work with clients to proactively engage the changing health care ecosystem. Prior to joining Healthsperien, Josh worked as a health care attorney for Mintz Levin, where he provided both policy and legal advice to clients. Josh has also served as a health policy intern for ML Strategies, and as a legal intern for the Harris County Hospital District in Houston, Texas, and for the corporate counsel of Sentara Healthcare in Norfolk, Virginia. Josh received his J.D. from

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Debra Dailey, Vice President of Workplace Experience Strategy within Sodexo's Innovations 2 Solutions Community, works with executive

leaders in diverse work and community settings to design and develop environments and experiences that enhance employee engagement, well-being and business performance. She brings a unique human-centric perspective and approach to facility and real estate management, by ensuring costs and assets are viewed secondarily to quality of life.

Throughout Debra's career, she has held key leadership roles in workforce performance, including VP of Wellness for Nationwide Better Health and Executive Director of Health and Productivity for a Tri-C and Corporate College in Cleveland, Ohio. Debra also spent several years in occupational health and wellness leadership for the Harley-Davidson Motor Company in York, PA, where she launched the company's first wellness initiatives.

Debra holds a Master's degree in Health Promotion and a Bachelor's degree in Public Health Education from Central Michigan University. In addition, she holds a Bachelor's degree in Nursing from Cedar Crest College in Allentown, PA. Debra currently sits on the National Business Group on Health's Institute for Innovation in Workforce Well-Being. Her work has received regional and national awards and has been featured at major conferences throughout the country.



Dr. Whitney Austin Gray leads Cannon Design's research and innovation platform. Overseeing primary and secondary research, prototyping and invention platforms, Dr. Gray works to develop and promote new ideas that will increase the impact

of research and innovation firmwide and deliver transformative projects to clients.

She holds dual appointments as an Adjunct Assistant Professor at the Georgetown School of Nursing & Health Studies, with research interests that include

the effects of building design and operation on health outcomes. In particular, her interests lie in the development of innovative and sustainable design strategies, processes and products that provide a safe and healing environment for patients and staff.

Dr. Gray's efforts have been featured in American Journal of Nursing, GreenSource and the Health Environments Research and Design (HERD) Journal. She is an invited presenter at national and international conferences—often speaking on topics related to human-centric design in health care environments. Dr. Gray co-founded the NIH Health in Buildings Roundtable, and is active in AIA and EDRA.

She received her Doctor of Philosophy in Health Policy and Management from Johns Hopkins Bloomberg School of Public Health, and a Bachelor of Arts in Public Health Studies from earned Johns Hopkins University.



Dr. Judith Heerwagen is an environmental psychologist whose work focuses on the behavioral, psychosocial and health impacts of buildings. She is a sustainable program expert with the U.S. General Services Administration Office of Federal High Performance

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MEET THE AUTHORS



David A. Hurtado, ScD, Yerby Postdoctoral Research Fellow at the Harvard School of Public Health Center for Work, Health and Well-being. David's research examines how the work environment shapes the health and well-being of workers, families

and organizations. In particular, he evaluates how organizational policies and practices related to work-time arrangements (e.g., job flexibility, breaks) affect risk factors for chronic disease. In addition, he researches the links between job informality and labor policies with health outcomes in Colombia, his home country. David holds a Doctorate in Social and Behavioral Sciences and a Master's degree in Society, Human Development, and Health from the Harvard School of Public Health.



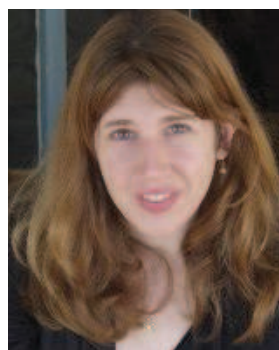
Lisa Larsen Hill, Senior Vice President, Marketing and Culinary, Sodexo is responsible for the Innovations 2 Solutions (I2S) team. I2S is comprised of subject matter experts in research, culinary, sustainability, wellness, technology and workplace experience,

including integrated services.

Lisa's team has been instrumental in the development of the organization's Retail Excellence platform, which enables consistency, guaranteed innovation and refreshes with new offerings every season. The recent additions to the portfolio of offers include Local Artisan, a chef-driven restaurant experience; miExperience, an array of technology solutions and cashless transaction management; MyFitnessPal, mobile ordering and touch screen marketing; and, a new comprehensive wellness offering called Mindful.

Most recently, the I2S team has implemented a 24/7 educational portal that has been utilized for over 76,000 individual training opportunities for managers, equaling 6,360 hours of training since its debut in October 2013.

Lisa graduated cum laude from San Francisco State University, with a Bachelor's degree in Communications/Educational Broadcasting. She also has studied at the University of London and the University of Amsterdam. Lisa was featured in the article "Seven People to Watch in the Industry" in Restaurants and Institutions Magazine, before it ceased publishing in 2010..



Rachel S. Permuth, PhD, MSPH, is the National Research Director for Business and Industry at Sodexo North America. Prior to working at Sodexo, she spent 10 years as a behavioral scientist at the National Institutes of Health. She received her PhD in Public Health from

the University of Maryland with a concentration in Workplace Health Behavior. Dr. Permuth has conducted numerous studies at Sodexo that study the effects of built environmental and service-level components on employee and organizational outcomes.



Kevin Rettle, FMP, is Sr. Director Insight, Innovation, and Marketing in Sodexo's Corporate Real Estate and Facilities Management Group. As part of Sodexo's global research team, he stays at the forefront of the drivers affecting people, workplace environment

and community—and how those drivers impact issues faced daily by leaders and discussed and

debated in boardrooms around the world. Kevin hold his undergraduate degree in Hospitality Management, and he's currently pursuing his graduate degree in International Marketing.



Phil Rogers, Division Vice President, Solution Center, leads the NorAm Solution Center team in identifying and developing solutions and offers that enhance Sodexo's credibility and competitiveness in the marketplace, and provide a platform to strengthen our Comprehensive Service

Solutions offer to our clients. Currently, the NorAm Solution Center offers include Facility Engineering, Energy, Construction, Mobil HVAC, Roofing Asset Management, National Energy Monitoring, Maximo CMMS and Corporate HS&E.

Phil has 35 years of experience in facilities management, engineering, energy construction and real estate. He graduated from Miami University in Ohio with a Bachelor of Science degree in Finance. His certificates and professional affiliations include:

- IREM, board member, past chapter president, Advisory Asset Management Board, AMO Corporate Representative, CPM
- BOMA, National Advisory Council, board member, Chairman of Code and Regulations
- Previous CEO/Board Member of 20 acquired companies
- Hughes Associates, Inc. and K2 Holdings, Inc. Board Member



Steve Sakach, Chief of Facilities Operations at the International Monetary Fund (IMF), is responsible for integrated facilities management at the IMF's 3 million square-foot headquarters complex in Washington, DC. Steve has over 25 years of experience in the facilities industry,

having previously worked as a facilities management consultant at Facility Engineering Associates, and in several management posts in facilities, construction and security at Georgetown University.

Currently serving as Vice President of Finance for the Association for Facilities Engineering, Steve is an instructor in the George Mason University Facilities Management Certificate program. He also served as a subject matter expert in the design of the IFMA SFP credential and training program in 2011, and has presented at national and international conferences on organizational design, FM staffing models and various best practices.

Steve studied Foreign Service at Georgetown University, learning that diplomacy was the art of telling someone where to go in such a way that they look forward to the trip. Unfortunately, he proved no diplomat, so ended up a Facility Manager. He is a Certified Facility Manager (IFMA) and a Certified Plant Engineer (AFE).



Rebecca Scott, MPH is a Communications Specialist and Research Analyst with the Innovations 2 Solutions Workplace Experience team. In this role, she assists with a variety of research projects and thought leadership initiatives pertaining to employee health, well-

MEET THE AUTHORS

being and quality of life. Rebecca received her Master of Public Health (MPH) degree from the George Washington University, with a concentration in Public Health Communication & Marketing. She received her Bachelor of Arts degree from Wake Forest University, majoring in Spanish Studies and minoring in Health Policy & Administration.



Sasha C. Simpson

currently serves as a policy consultant for Healthsperien, LLC. Prior to joining Healthsperien, Sasha served as Senior Government Relations Associate for Urban Swirski LLC, a government relations and consulting firm

located in Washington, D.C. In her role at Urban Swirski, Sasha focused on providing strategic policy and communications solutions to clients. She represented philanthropic organizations, foundations, Fortune 500 companies, and national associations on tax and financial services-related issues on Capitol Hill. Prior to her work with Urban Swirski, Sasha served as a Research Assistant for the Coalition to Transform Advanced Care through the Mintz Levin Center for Health Law and Policy. At that time, she also interned with ML Strategies, the consulting affiliate of the Mintz Levin law firm. Sasha has also served as Summer Clerk and Bailiff for the Honorable Virginia Crandall of the First Circuit Court of the State of Hawaii. Sasha received her Bachelor of Arts degree from the School of Public Affairs at American University.



Cynthia G. Wagner is editor of *THE FUTURIST* magazine and manager of special multimedia projects at the World Future Society,

wfs.org. The magazine forecasts trends and ideas about the future.

Cynthia first came to *THE FUTURIST* as an editorial assistant in 1981 and has been managing editor there since 1992. She holds a Bachelor's degree in English from Grinnell College and an M.A. in Communications, Magazine Journalism, from Syracuse University's S.I. Newhouse School of Public Communications.

She has authored several books, including *Foresight, Innovation, and Strategy: Towards a Wiser Future*.



James P. Ware, PhD

works with change leaders to design and implement compelling work experiences that foster high performance and employee engagement. He is a former Harvard Business School professor who has spent his entire career helping

clients invent their own futures. Jim is the founder and Executive Director of *The Future of Work... unlimited*, Global Research Director for *Occupiers Journal Limited*, and a Partner with the *FutureWork Forum*. He is a co-author of four books on the digital economy; he currently serves as the elected president of the Corporate Real Estate Council of the International Facilities Management Association. He is also a member of the National Speakers Association and the World Future Society. He holds PhD, M.A., and B.Sc. degrees from Cornell University and an MBA (With Distinction) from the Harvard Business School. He lives and works in the San Francisco Bay Area.

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