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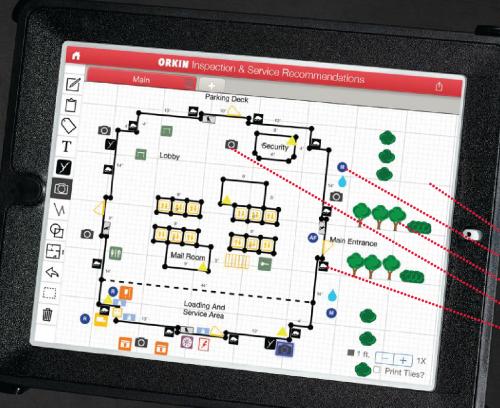
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The rise of the workspace consumer

// KIETIL KRISTENSEN AND MARIE PUYBARAUD

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// NANCY JOHNSON SANOUIST

**BEHIND THE COVER:** Envisioning the future workplace brings to mind wild speculation of the technology, lifestyle and progressive life that will likely evolve; however, at the core of this issue's cover and feature, a simple matter of human choice will likely be the biggest change in our lives.



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#### **ABOUT IFMA**

IFMA is the world's largest and most widely recognized international association for facility management professionals, supporting 24,000 members in 105 countries. The association's members, represented in 134 chapters and 17 councils worldwide, manage more than 37 billion square feet of property and annually purchase more than US\$100 billion in products and services. Formed in 1980, IFMA certifies professionals in facility management, conducts research, provides educational programs and produces World Workplace, the world's largest facility management conference and exposition. To join and follow IFMA's social media outlets online, visit the association's LinkedIn, Facebook, YouTube and Twitter pages. For more information, visit the IFMA press room or www.ifma.org.

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#### Check out the interactive version of FMJ, featuring **videos, online extras and more!** FMJ can also be viewed on mobile devices.

#### THIS ISSUE

The online version of the publication includes interactive resources.

- ARTICLE: "Higher Ed Classroom Revolution Informs Corporate Space Planning for Millennials" to accompany "Smart Workplace 2040" (p. 18)
- PODCAST: "The Impact of Big Data and Analytics on Corporate Real Estate" to accompany "Future-proofing Your FM Career" (p. 25)
- PODCAST: "Getting to Know IFMA's Members of the Month" to accompany "Congratulations to our July and August Members of the Month" (p. 38)
- VIDEO: "Why Social Physics?" to accompany "Social Physics: A New Science to Watch for FM" (p. 40)
- ARTICLE: "These Companies Claim They Can End Office Air-Conditioning Wars" to accompany "How to Win the Thermostat Wars" (p. 82)
- VIDEO: "Seth Godin on the Difference Between
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This exclusive online section focuses on expanded FM coverage.

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// IFMA'S FACILITY MANAGEMENT CONSULTANTS COUNCIL

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#### **SOCIAL MEDIA**













To join and follow IFMA's social media outlets online, visit the association's LinkedIn, Facebook, Twitter, Flickr and YouTube pages.



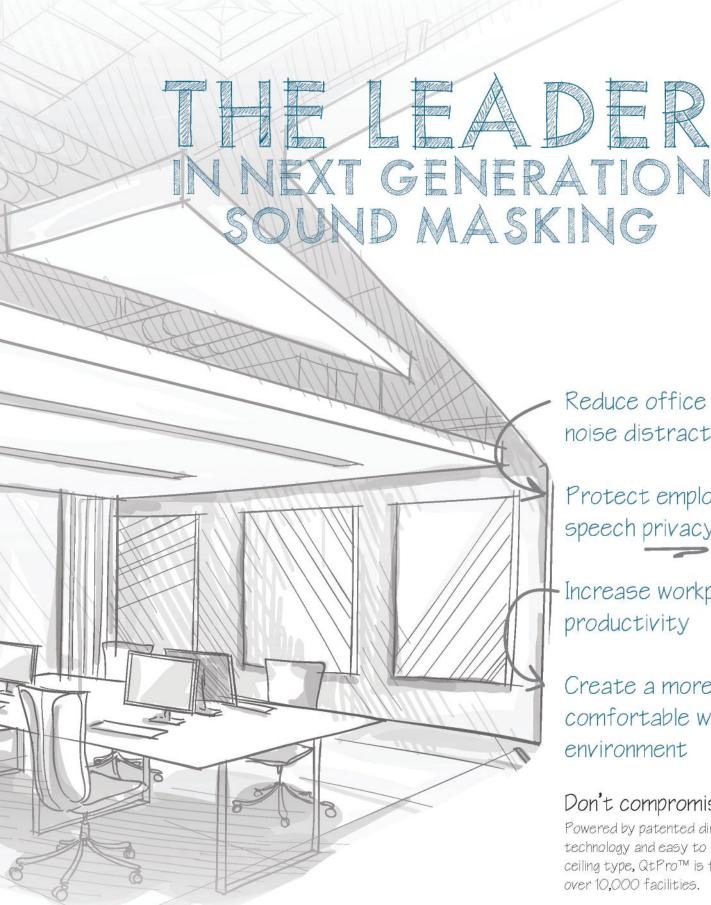
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#### **EDITOR'S** COLUMN

ANDREA SANCHEZ
Editor-in-Chief
Facility Management Journal

**THE WORLD IS YOUR OYSTER.** Those were some words of wisdom recently given to me by my mentor. Oysters produce pearls, objects of high worth. If the world is your oyster then it is a place where you can get something of great value.

So how does one start this journey? Life is full of possibilities and one can get lost in the myriad paths that are available. You won't find direction by letting the external distract or overwhelm you. Experience and education will only get you so far. Who's this guide you are looking for? You know this person very well.

The key to your future is you. You have the ability to achieve anything you put your mind to.

#### IFMA was his legacy

In producing FMJ, my column is the last piece that is placed. Reading and viewing the final copy of the magazine gives me inspiration on what to write about. Unfortunately, this issue caught me by surprise. As I am writing this I have been informed of the passing of a great IFMA legend and friend, George Graves.

George was the first president of IFMA and among the association's original founders. It is because of him that we are all united within this wonderful and powerful facility management community of thought leaders. He was an integral part of IFMA and the advancement of the FM profession.

Besides his mark on the profession, George left a mark on everyone's heart. He never ceased to have a smile on his face and had the amazing gift of remembering details about everyone he met. Despite being in contact with an overwhelming amount of people throughout his life, he always made the extra effort to connect and acknowledge the little things that made each one of us unique.

I will never forget his visits to the IFMA office. All staff would get an email that George was

stopping by. That in itself garnered immediate smiles. I remember the sight of him walking in with his trademark box of chocolates. George would then make the rounds to say hello to each staff member and committed to staying for as long as that would take.

There was one time when circumstances prevented him from visiting and he sent a box of chocolates just so we would know he was thinking of us. That was George — a model of a person who let who he was drive him to amazing heights.

In the November/December issue we will include a full article that celebrates the life and career of George Graves. In the meantime, go to www.ifma.org for more information and find out how you can share your memories with other colleagues.

#### The key to your future is you

In this issue you will find stories from people who dared to step out of the norm to introduce either a new product, a new process or a new way of thinking. For instance, at the upcoming World Workplace conference you will witness the unveiling of IFMA's enhanced online Knowledge Library (see page 53), as well as other conference debuts such as the FRED talks.

Trends and new technology are not created without someone taking a risk. Whether we know it or not, we all take risks on a daily basis — deciding on one choice over another. That means taking the reins on yourself, being the leader of you (refer to page 98).

I look forward to seeing old friends and meeting new faces at World Workplace next month. I am excited to hear what motivates you and how we at IFMA can assist you in your path to find your personal oyster.

Until next issue,

@asanchez16 (Twitter)

Andua)

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#### CHAIR'S COLUMN



**HELLO IFMA!** The theme of the September/October issue of FMJ is "Building the Future of FM." This is a continuing focus for IFMA's board of directors, the outstanding association staff and you, our dedicated volunteer leaders and members.

Building the future of FM is a continual multi-faceted effort. IFMA is taking action through several initiatives to equip FMs with best-in-class professional development and credentials, a soon-to-be-released Knowledge Library, webinars and learning and networking events.

#### **Knowledge at your fingertips**

Delivering value to the general membership is the consistent goal of these initiatives. Building an online Knowledge Library as the first phase of IFMA's knowledge strategy has been the focus of the Knowledge Strategy Task Force led jointly by board member Geoff Williams and IFMA's strategic communication maven Andrea Sanchez.

Creating the Knowledge Library would not have been possible without a significant commitment of time to organize and validate each piece of content. There is a more detailed article about the knowledge strategy on page 53 of this issue, but I wanted to acknowledge the contributions of IFMA members in making the Knowledge Library a reality.

#### **Expanding the FM pipeline**

IFMA education and networking events are highly valued by our members. World Workplace Asia was held in Singapore in early August. It was attended by nearly 400 FMs from 16 countries and was reported by many attendees as the best yet!

Building the pipeline of future FMs through education programs in high schools, community colleges and universities is ongoing and expanding. Having an adequate number of trained and qualified FMs to replace those who are retiring is a growing challenge for employers.

There is strong awareness about the IFMA Foundation's scholarships and Accredited Degree Programs. Graduates of these programs are experiencing almost 100 percent job placement. Extending the awareness of FM into high schools is the next frontier. Visit foundation.ifma.org and/ or page 60 of this issue to learn more about the Global Workforce Initiative and how it is linking education, economic development and elected leaders to encourage FM as a career of choice.

IFMA is using its finite resources to provide extraordinary products, services and events that benefit our existing members. We understand that these benefits and the IFMA experience are why members renew each year and that they also attract new members. IFMA's local chapters, industry-specific councils and communities of practice provide a wide array of opportunities for you to contribute your time and energy to making IFMA stronger and more effective.

With World Workplace in Denver in just a few weeks, the excitement is building. The event staff and program committee have done incredible work aimed at providing a great experience for each attendee. New benefits like access to the Knowledge Library will be showcased in Denver. In addition, this year we'll offer previews of a new feature labeled FRED (Facilities, Real Estate Education) Talks and are interested in seeing how these are received by attendees.

As always it is indeed an honor to have this opportunity to communicate with members and to serve as your chair. I will look forward to seeing many of you in Denver. Be well and be safe.



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#### PRESIDENT'S COLUMN



**THE FUTURE OF FM** — the theme of this issue — is a great topic for us all to think about and analyze in order to develop a picture of how the future might look. The nice thing is that we can all share our visions and opinions and nobody will be wrong because all of the possibilities still exist. So allow yourself the luxury of a little time to think about the future of FM.

Once you have thought about the future of the profession, think about what can you do to influence that vision and to help the millions of people involved in FM activities prepare for it.

#### Lend your voice

One way that you can help shape the future of FM is to provide input about the main functions and activities that make up the FM discipline. IFMA is leading a worldwide effort to update the Global Job Task Analysis, which provides the association with the basic foundation that defines the FM core body of knowledge. This content is then used to maintain and develop the IFMA credentials, programing, new product areas and research. With your input IFMA will be able to make sure we have an up-to-date global version of the fundamentals that define facility management.

In August I had the great privilege of participating in the IFMA Foundation and IFMA East Bay Chapter Golf Tournament. With more than 200 participants it was an exciting IFMA event that was enjoyed by all. This was much more than just a fundraising social event — I observed sharing, informal benchmarking, comradery and the diversity of the participants. These were IFMA members and guests (code word for member prospects), FM professionals and vendors, young, old and every age in between. It was refreshing to see the number of younger participants.

Thank you to all of the volunteers from the IFMA Foundation and California chapters who raised thousands of dollars for the foundation and the American Cancer Society.

Another theme that emerged from the IFMA chapter leaders attending was the true gratefulness they showed to the vendors that sponsored and donated items to the event. This gratefulness was demonstrated in the chants of "Buy IFMA."

#### **Buy IFMA!**

The vendors that help sustain IFMA activities in every chapter, council and community of practice, as well as at IFMA events

and initiatives all over the globe, are numerous! Without their support, many of our initiatives would not succeed.

"Buy IFMA" means giving our supporting vendors an opportunity to submit a proposal. It means recognizing that supporting vendors are committed to helping our members find solutions to their challenges. It means they value and recognize the FM discipline that our IFMA members care about. I highly support the "Buy IFMA" concept. On your next purchase, look first at our IFMA supporters and partners. If you do buy elsewhere, convince those businesses to become IFMA supporters.

Thank you to all of our exhibitors, sponsors and supporters that help make IFMA the globally recognized resource for facility management.

#### **See you in Denver**

This year's World Workplace Conference and Expo will be held the first week of October in Denver, Colorado, USA. This is IFMA's largest event and is the highlight of the year with fantastic educational content and speakers. Don't miss the opportunity to meet with your IFMA friends and see the exciting products and services being exhibited by our supporting vendors.

At World Workplace we will be releasing the new Knowledge Library which is the result of many hours of work and volunteer time. The Knowledge Library is an outcome of the knowledge strategy adopted by IFMA's board of directors more than two years ago and will be a "game changer" for the IFMA membership value proposition. You can learn more about it on page 53 of this issue.

In September IFMA China will also host the IFMA Workplace and FM Asia Summit in Shanghai. The event dates are Sept. 17-18, 2015.

Please continue to invite your colleagues to join IFMA so they too can fully participate in the local and global levels of IFMA.

Tony Keans

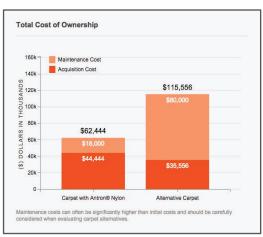




Carpet can be a significant investment. There is a bigger picture to consider: the lifespan of your carpet and what it takes to maintain it.

Thinking one change to your specification won't make much difference? Think again. Stop by Booth # 845 and 944 at IFMA's World Workplace to do the math.

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#### **INDUSTRY NEWS**

#### **GOLFERS RAISE MONEY FOR IFMA FOUNDATION**

The third annual IFMA Foundation and IFMA East Bay Chapter Golf Tournament on Monday, Aug. 17, was a huge success. Held at the Sunol Valley Golf Club in the Bay Area of California, the tournament spanned two full golf courses with roughly 240 players. The event was a major undertaking and was made possible by more than 40 sponsors and 30 volunteers.

Some highlights of the day included:

- Putting contest
- Buffet lunch
- Silent and live auction and scratch-off cards
- Entertainment provided by a 2014 American Idol finalist
- Two margarita holes
- Four massage holes
- Hot dog, taqueria, brick oven pizza and other snack and refreshment stands
- GenZe electric bicycle demonstration

The annual tournament has quickly become one of the foundation's most successful fundraising efforts. It not only helps to provide financial support, but also presents a tremendous networking opportunity for IFMA members and industry partners.

It was a fun and full day for all and a great way to raise money for the foundation and spread the word about how the foundation is making FM a career of choice.



RIGHT TO LEFT: Wayne Whitzell, East Bay chapter president; Tony Keane, IFMA president and CEO; Carlos Rivera, A&A Maintenance; and Jeff Tafel, IFMA Foundation executive director, enjoying the banquet after the tournament.

#### IFMA LAUNCHES GLOBAL JOB TASK ANALYSIS TO DEFINE COMPETENCIES OF MODERN FM

IFMA's Global Job Task Analysis (GJTA) identifies the critical tasks and work activities of the facility management professional, the context in which those tasks and activities are carried out, and the most crucial knowledge and skills required to perform the job successfully.

When completed, the GJTA process will provide a basis for developing exam specifications and curricula that accurately reflect the scope of practice and an understanding of unique regional and industry needs.

Guided by IFMA's International Credentials Commission (ICC), the GJTA is conducted in phases and its success is dependent on worldwide volunteer involvement in one or more of several aspects of the year-long project. The opportunities include:

- Participating as an interviewee (September/October 2015)
- Participating in a focus group (September/October 2015)
- Participating in a task force team to define the domains that represent the principle areas of job responsibility and knowledge needed to perform the professional responsibilities of a facility manager
- Participating by being a regional survey champion
- Participating by filling out the final survey

IFMA conducted its first job task analysis in 1992 with the aim of identifying the basic requirements for the practice of facility management. The first Global Job Task Analysis, conducted in 2009, gathered responses from participants in 62 countries with 36 percent of respondents located outside of the U.S. Following that analysis, emergency preparedness and business continuity, as well as environmental stewardship and sustainability, were added to the nine existing core competencies of facility management to make 11 total.

For more information on this vital initiative, see the Professional Development Column on page 90 of this issue of FMJ, email credentials@ifma.org or visit ifma.org/professional-development/global-job-task-analysis.

#### **UPCOMING FM EVENTS**



#### IFMA WORLD WORKPLACE 2015 CONFERENCE AND EXPO

Oct. 7-9, 2015 Denver, Colorado, USA worldworkplace.ifma.org

#### IFMA CHINA WORKPLACE AND FM ASIA SUMMIT

Shanghai, China: Sept. 17-18, 2015 Shenzhen, China: Nov. 5, 2015 china.ifma.org/fm2015

#### IFMA WORKSPACE INDIA

Nov. 5-6, 2015 Bangalore, India



#### IFMA FACILITY FUSION U.S. CONFERENCE AND EXPO

April 12-14, 2016 Indianapolis, Indiana, USA facilityfusion.ifma.org/ indianapolis



#### IFMA FACILITY FUSION CANADA CONFERENCE AND EXPO

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#### Are you seeking FM interns? IFMA's INTERNnet links students and young professionals preparing to enter the workplace with opportunities to gain hands-on experience in facility management. Create your INTERNnet Recruiter Account online. Reach highly motivated internship candidates through the search engine specifically geared toward facility management. Help the next generation of FMs build the skills employers expect from qualified job candidates. www.ifma.org/intern-net

#### FRANCHISES DONATE US\$1 PER **CHAIR CLEANED TO BENEFIT FOSTER CARE CHARITY**

MilliCare, a leading commercial building cleaning service provider and Corporate Sustaining Partner of IFMA, dedicated August 2015 to its Month of Care CHAIRity program.

As part of the program, participating MilliCare franchises located in the United States pledged to donate US\$1 for each chair they cleaned during the month of August to Together We Rise, an organization supporting foster children and their families. Participating franchises located outside the U.S. were able to select local charities for children in need as beneficiaries. MilliCare cleaned thousands of chairs through their more than 80 franchise locations around the world during the month-long program, raising more than US\$30,000.

MilliCare provides textile and carpet cleaning solutions for large facilities such as Fortune 500 company offices, government agencies, airports, hotels and other commercial buildings.

In addition to textile and carpet cleaning services, MilliCare also offers environmentally safe air care, spot care, fiber preservation and entryway protection.

Together We Rise, a 501(c)3 nonprofit organization, works with hundreds of foster agencies and major corporations to help make a difference in the lives of foster children across the U.S. The foundation raises funds and awareness for foster care and gives children a sense of normalcy through situations of great transition in their lives. They have helped more than 10,000 foster youths across the U.S. by providing new bicycles, college supplies and suitcases to brighten their lives and assist in their transitions to new homes.

To learn more about the MilliCare Month of Care program and support Together We Rise, contact +1-888-88-MCARE or visit www. millicare.com/cares.

#### **NEW LOCATION FOR GLOBAL IWMS PROVIDER OFFERS CONSULTING** SUPPORT TO U.S. WEST COAST

Boston-based software company Planon, a global leader in integrated workplace management systems (IWMS) and a Gold-level Corporate Sustaining Partner of IFMA, announced in late August the opening of an office in Seattle, Washington, USA. The new office will support Planon's West Coast customers with senior-level consultants.

The opening of this office shows Planon's commitment to the North American market while being a global

provider of facility management software. Planon has been recognized by Gartner as a leader in the IWMS market for six consecutive years.

Planon has implemented its comprehensive solutions for more than 2,000 clients, including U.S.based customers Viacom and T. Rowe Price. These organizations have benefited from role-based interaction, which ensures the highest user acceptance in any real estate or facility management process.

#### **INDUSTRY NEWS**

#### FM, FOOD SERVICES PROVIDER PARTNERS WITH SCHOOL DISTRICTS ACROSS AMERICA

Aramark (NYSE: ARMK), the US\$15 billion global provider of award-winning services in food, facility management and uniforms and a Platinum Corporate Sustaining Partner of IFMA, has added 39 new school districts to its U.S. book of K-12 education business

Topping the list is a food service contract with the Archdiocese of Chicago, which serves 44,000 K-8 students through its archdiocese, charter, private and religious schools. Aramark received another Chicagoland contract with the Naperville Community Unit School District 203 to serve more than 17,000 students.

During the U.S. summer break Aramark also earned two large facility services contracts to clean classrooms in major school districts in southern states: the Paulding County Board of Education in Dallas, Georgia, with more than 38,000 students; and the Wichita Falls Independent School District in Texas, with more than 14,000 students. Rounding out the 39 new accounts are 23 food service and 12 facility services contracts serving an additional 165,000 students in school districts in Rhode Island, New Jersey, Pennsylvania, Illinois, Missouri, Arkansas and Texas.

Aramark currently partners with more than 380 school districts throughout the U.S. providing almost 370 million meals annually to more than 2 million children. The company also tailors facility services programs to meet the needs of more than 130 school districts across more than 2,700



buildings, and is the only provider that generates insights and actions based on direct feedback from more than 100,000 middle and high school students annually.

Services provided by Aramark in America's schools include: on and off-site breakfast, lunch and dinner, after school snacks, catering and nutrition education; implementing complex nutrition guidelines while increasing student participation in food programs; providing maintenance, custodial, grounds, energy and construction management; and building commissioning.

In its K-12 education business, Aramark strives to improve childhood nutrition and

enrich and nourish lives through creative menus featuring healthier versions of student favorites, as well as through initiatives like the Healthy Bites program, which encourages students to try free samples of unfamiliar foods to help them develop healthy eating habits.

In facility services, Aramark innovation includes the company's environmentally friendly Blue Cleaning® Program, which uses electronically activated water to kill bacteria in half the time required by traditional chemicals, while reducing the school's carbon footprint. This process also eliminates the risk of allergic reactions by students to harsher cleaning chemicals.

#### HAVE RELEVANT FM INDUSTRY NEWS TO SHARE?

Submit it to communications@ifma.org to be considered for inclusion in the Industry News section of an upcoming issue of FMJ.

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# THERISE OFTHE WORKSPACE CONSUMER

**FMJ EXTRA** 



#### BY KJETIL KRISTENSEN AND MARIE PUYBARAUD

Many of us remember the first time we used a computer with floppy disks or sent our first email; our smiles widened when we heard the dial-up tone indicating that our messages were hurtling into cyberspace. Today, emailing is standard workplace practice, happening countless times every minute of every day.

We are stepping into a new world of work in which writing is a thing of the past, email is ever-present and video conferencing is a standard practice. These communication evolutions have impacted the way we work and will be even more revolutionary in the future with the advent of technologies and products we can't imagine today.

The workplace of the future is emerging and workers are embracing an array of innovations never before experienced. From the rise of a compensative- and experience-driven society within an attention economy, demanding edutainment, cybercare, well-being, health, ethical values and searching for life harmony, participative societal trends and coworking will be the norm. Focusing on the impact of emerging trends, a recent research report provides a glimpse of what to expect in the next 25 years, and what will be the impact on the workplace by 2040.

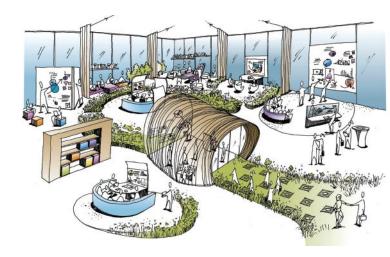
Today's teenagers will be the workers of 2040, born digital natives we refer to as "digiratis." This is the world of Nina, a hypothetical 40-year-old working mom. Nina is a workspace consumer, meaning that she consumes space on demand. She chooses where, how and when she works, reaching out to a wide range of working hubs spread across her neighborhood. The world of Nina is under construction today, and we are all part of the design team. It is time to rethink the world of work, and get ready for a future that is going to blow us away.

#### Choice and flexibility shape the workplace of the future

In 2040, the typical 9-to-5 work schedule will be a thing of the past, as will the traditional office that currently rules the business landscape. A 15-year-old in 2015 has never known a world without the Internet, and in 25 years he or she will be one of millions of workers who leverage technology to create work patterns radically different than those of today to achieve a satisfying work-life balance.

The workplace in 2040 will be defined by a number of factors:

- Adaptable, radical working patterns. Working patterns in 2040 will flex to meet private needs and family constraints. There will be no set hours for work as long as the work gets done. A typical day might include a blend of mobile productivity, virtual and face-to-face collaboration, offline time and quality time at home. Flexible contracts will be the norm.
- Choice. Choice is a major theme of the future workplace, as workers will decide where and how they want to work. Through smart, connected home technology that automates household chores and analyzes productivity, home will become the main place of work. Future workers also will have a broad choice of alternative work venues.
- Location. Trophy workplaces will be offered to employees seeking highly experiential environments to meet and network with other individuals, making visits to the office both a luxury and a rewarding experience.



- Entrepreneurship. While not all professionals will be business owners, most will function like the entrepreneurs of today, in that they decide when and how to work and collaborate with others to solve problems. Technology will enable access to a wide network of skilled and experienced contractbased professionals who will flourish in incubatorlike workspaces.
- Collaboration. Collaboration will be a major driver
  of enterprise performance and a core competency
  for every employee. High levels of interaction will
  be supported by team workspaces that integrate
  collaborative technologies such as interactive video
  conferencing and immersive collaboration rooms.
- Wellness. Avoiding burnout will be a theme of the future. To do so, health and well-being will be prioritized over work, with a higher focus on healthy activities and personal time.
- Networks. Employees in 2040 will rely on an extremely broad network of subject matter experts to carry out their work. Tasks will be shared among these teams of expert users to crowdsource product ideas and co-create new features.

#### Smart workplace recommendations

In 2040, technology will be predominant in every aspect of our daily lives. The predicted turmoil of change we are facing as we move through the next 25 years calls for a major transformation in our society, our lives and our organizations, as well as in the way we design and operate our shared workplaces.

There will be far-reaching implications for businesses, and real estate professionals and facility managers will need to respond and adapt accordingly. This transformation will include:



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- Human resources. Dismantling the fixed officehour model and shifting toward flexible work contracts to increase the mobility of employees and entrepreneurs.
- **Organizational structures.** Management competencies will shift radically with highly dispersed teams across wide geographical areas.
- **Technology.** Organizations will need to provide adaptable technology to meet changing needs, including long-term packaged solutions and short-term responses created on demand to meet employees' adaptability and the market's innovations.
- **Health and wellness.** Smart organizations will provide wellness services in work hubs to sustain the well-being of employees and avoid technological burnout.
- **Facility management.** Facility mangers will need to ensure that workspaces focus on end users' needs and constantly evolving demands. This calls for the continual development of technology-based service solutions.
- **Real estate.** Property managers will need to consider a dispersed real estate model with mixed facilities and multipurpose environments to enable fast response to changes in user needs, and to meet new customer utilization patterns and demands.
- **Workplace.** Workplaces will need to be designed for social, cohesive and adaptive working environments that empower users and teams across different work contexts and collaboration modes. A critical component of workplace design will be developing intuitive interfaces to improve the user experience among highly connected users.
- **Service delivery.** Facility managers will need to respond in real time to user demand by integrating invisible technologies in facilities to track user activities and record user experiences without the need for intrusive technologies.

#### Preparing for the smart workplace

With all of this change on the horizon, how can we best prepare? Corporate real estate management and facility management functions and professionals will need to adapt to the changing demands of the next generation of employees by:

Adapting service delivery models proactively and in real time to fit the increasingly complex requirements regarding choice, fluidity, identity, care, experience and intuitiveness in the lives of employees.

#### NINA, THE WORKSPACE CONSUMER

In 2040, 40-year old Nina has a career, a husband and two children. She has rapidly embraced the profound changes imposed through the exponential growth of technology, nanotechnologies, artificial intelligence and biosciences during the last quarter century.

Nina lives in a smart home that adjusts light, temperature and ambiance according to her family's bio-health indicators. Intelligent machines carry out household chores such as cleaning or ordering and preparing food to match the family's daily nutritional requirements.

Nina doesn't commute to work. Her activity patterns are radical compared with today — they aren't fixed around a place or timetable. Nina is contracted to work the equivalent of a full-time professional per year and her husband works roughly 80 percent of that. How and when that work is completed is entirely their choice, so long as the work is done.

Part of a new generation of workspace consumers, she chooses exactly where she wants to work. Her work schedule is fluid. Often work is at home: sometimes it's with coworkers at a collaboration hub. When Nina wants to reward herself she can choose to visit a trophy workplace, a networkbased campus headquarters, where she can meet colleagues in a highly experiential environment.

Nina and others like her have high expectations around choice, experience and fluidity when it comes to work. She operates like the entrepreneurs of 2015, relying on collaboration with experts, and isn't tied to a specific office. For Nina and millions of others, work is something she does, not a place that she goes.

- Redefining facility models to meet the demands of employees wherever they are and at any given time of the day.
- Redesigning working environments (single facilities, shared facilities, local amenities, service delivery and support services) to meet increasing real-time demands.
- Digitizing simple service delivery and support services to focus on human-centric services that

enhance performance. This would include developing intuitive Web and mobile interfaces as well as invisible technologies (e.g., motion detection) to track user activities and experiences.

As this concept of consuming workspaces comes to fruition, facility portfolios will resemble a network of workspaces and workplaces will be coworking environments spread across ecocampuses. A concerted response from CREM, FM, workplace and HR functions will help to ensure that businesses are fully prepared for the changes ahead. FMJ

"The Smart Workplace 2040" report, produced by Johnson Controls' Global WorkPlace Solutions (GWS) business, describes how 25 years from now, work will be seen as something workers do, rather than a place they commute to each day. A group of 26 industry and academic thought leaders reviewed and challenged the research, which was led by Dr. Marie Puybaraud, director of Global WorkPlace Innovation at GWS. The experts collaborated during a series of three workshops in the United States, Europe and Asia-Pacific to share their opinions and recommendations on the scenarios covered by the research. To download the Smart Workplace 2040 report, visit on.jci.com/SW2040.



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PODCAST

The Impact of Big Data and Analytics on Corporate Real Estate

# Future-profing your FM career

BY JOHN T. ANDERSON

he digital revolution has transformed the way every company and every role operates, and no industry can ignore its impact — least of all facility management professionals. As this transition takes hold, FMs are challenged to break out of their often isolated traditional silos and take a cross-disciplinary digital approach to facility management to become partners of the businesses they support.

> Now more than ever, organizations are under pressure to grow revenue and make aggressive cost savings while also engaging in creative, dynamic place-making within the office for the recruitment and retention of top talent. In many ways, the building is the business.

This represents an extraordinary opportunity for FM professionals. From the new generation looking to take the industry by storm to the seasoned veterans contending with a rapidly changing landscape, it is essential that all FM professionals take a strategic view of their role and hone a business-minded and data-informed digital skill set. This means familiarizing themselves with the business environment the company currently faces and most importantly, taking advantage of the next generation, datadriven tools at their fingertips to help them along the way.





#### The business-driven view

Today's economic landscape is a real doozy; it's tumultuous, ever-changing and often unpredictable. Companies are challenged with balancing revenue growth and a demand for near-constant innovation with deep cost cutting and a steady eye on the purse strings. Buildings have an extraordinary and unprecedented role to play in driving company success.

Businesses are operating in a more competitive employee recruitment and retention market than ever before. They are vying for a fresh generation of employees who are increasingly accustomed to perks and job flexibility. They're ultra-creative and in-demand, and they can be enticed by dynamic and anticipatory work environments. The facilities professional can add a tremendous amount

IT IS ESSENTIAL
THAT ALL FM
PROFESSIONALS TAKE
A STRATEGIC VIEW OF
THEIR ROLE.

of value by helping businesses appeal to both talent prospects and their existing talent pools by honing their space usage.

This means cracking the language of business. FM professionals need to put on a high-level business hat from the beginning of their careers in order to anticipate a company's needs and become a key component of its growth.

This may be by facilitating the creation of unique spaces that attract great talent and then inspire productivity and collaboration in the long term. It may be by sharpening the lens on space usage to construct an office for the greatest efficiency, an approach which can identify wasted space and lead to millions of dollars in real estate savings. Or it may be the proactive upgrading of systems to keep the workplace running as smoothly as possible.

That means introducing organizations to the latest tools for streamlining resource booking, simplifying the hassles that come with a mobile workforce and facilitating both internal and external communications. By matching recommended technology upgrades to business imperatives, facility managers will be much more successful at "managing up" to their business counterparts and proving their overarching value-add.

Already, seasoned FM professionals are beginning to tap into key technology trends to inform their business decisions; the cloud, mobility and, increasingly, big data are solid examples. The cloud offers the potential to reduce infrastructural costs and ramp up a business's

agility. Mobility empowers a flexible workforce. But it's big data that has the greatest disruptive potential for facilities and the creation of a next-generation digital building. As facilities professionals become more techsavy, developing big data programs and considering their implications is a natural next step.

#### Becoming (big) data-informed

Big data (and its young partner, the Internet of Things) is an often intimidating, nebulous term. There continues to be debate over what it actually even entails. The rough answer is: big data is an extreme amount of data that cannot be processed or understood by traditional methods.

But the Internet of Things — which can be loosely defined as connected smart devices, like watches and light bulbs, that previously were not connected to the Internet — now allows us to collect and extract huge swathes of data from a wide range of processes and objects to develop actionable insights.

Health and wellness sensors can track individual physical activity and make recommendations. Real-time connected baby monitors or monitors of independent elderly people can continually update families on a

person's well-being. Connected city apps can tell drivers where they can find a free parking space. The possibilities are endless. And they exist for the management of buildings and space, too.

Sensor technology offers facility managers, alongside HR, C-suite executives and IT departments, a starting point for capturing large amounts of data on how employees are using office space. This data can answer key questions that inform the end-design of the workspace, such as:

- How often do employees use their own desks when working at the office?
- How is the mobility trend affecting workspace utilization?
- What is the employee demand for private space?
- Do employees from different departments have distinct preferences on where they work?

By reassessing the resources in individual buildings based on real usage, facility managers can impact the

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#### BIG DATA HAS THE GREATEST DISRUPTIVE POTENTIAL FOR FACILITIES.

business's bottom line by making recommendations on space changes that drive productivity. They are also able to identify spaces that could be used more optimally and with the potential to cut costs. These changes can increase collaboration among employees, increase overall efficiency and help companies retain stellar talent.

There is also the potential for FMs to track space usage over an extended period of time, identifying patterns that empower them to make predictions about rhythms in employee behavior. For example, there may be regular intervals throughout the year when usage of a certain space lulls, or more employees than usual tend to be out of the office, at which point the business could sublet a portion of their office space or recommission it for a different purpose.

Highlighting the potential for flexibility to business leaders in order to maximize the value of a space will immediately elevate the facilities professional as an essential role to the core of a business. And that's something that will, in the end, benefit everyone. Big data will be an essential tool for facility managers looking to make this leap and remain strong players in the industry.

#### **Building out your skillset**

There are new skillsets that need to be honed to make a strategic, technological and business-driven approach to facility management actionable. As organizations increasingly base their internal and external decisions on hard data, so too must FM professionals adapt their thinking and approach.

Big data analytics and strategic development will become mandatory skills for those who want to advance their careers. It will be impossible for businesses to turn down a facility manager who keeps a finger on the pulse of the latest facilities technology and knows how to turn data into insight that helps achieve savings and growth.

Building out this fresh skillset first requires a broadening of perspective. Facilities professionals can expand their understanding of the building's role beyond their own practical needs for maintenance and continued functioning to encompass the interests of the C-suite and the HR/IT departments. This will enable FM professionals to view their buildings through four different lenses: maintenance and logistics, business revenue, people and technology.

FMs can then ask themselves key questions to ensure they are making the most of both their space and the potential for innovation. Are they enabling collaboration through their space allocation and workplace management? Do employees have the environment they need to be productive? Is the FM team leveraging innovative technology to support these business needs?

#### Undeniable opportunity in facility management

Today's business climate is moving faster than ever before. Companies expect near 24/7 availability, instantaneous decision making and ongoing, far-reaching innovation. Buildings have an essential role to play in moving businesses to the front of the pack, whether as a tool to attract top talent, drive productivity or cut costs. Technology and this new, elevated role for the building presents facilities professionals with an undeniable opportunity to become a central asset to revenue growth.

But only the facility manager who proactively keeps pace with business imperatives across the organization from the C-suite to HR and IT will achieve that goal. Business overall is becoming tech-savvy at an incredibly rapid rate, so leaders will want to see that facility managers are data-informed as they align with overall company goals.

The successful FM career of the future will be defined not just by a business-minded perspective, but by a digitally native, strategic approach to making the most out of building space to contribute to the bottom line. FMJ



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A frequent presenter and commentator for business and corporate real estate, John has presented at Worktech London, Worktech New York and IFMA's World Workplace. He also served on the board of OSCRE International.

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# Supporting mobile mobile workforce

BY SHONA ANDERSON



In the past decade, the work environment has changed dramatically. The standard of all employees coming to an office every day with only salespeople traveling consistently has given way to a more mobile workforce in which telecommuters work from home and people work in their cars, in coffee shops and "hotel" in office buildings.

The introduction of reliable Wi-Fi, webcams and small-input technology (tablets, laptops and smartphones) has made this possible. According to statistics from 2013, 2.6 percent of the U.S. employee workforce considered home their primary place of work. The same report indicated that "telework has grown nearly 80 percent since 2005," with more employees working multiple days out of the office.<sup>1</sup>

There are many benefits to working outside of the office. From an organization's perspective, it creates a more flexible workforce that can cover global time schedules, reduces real-estate costs and helps attract and retain top talent who long to have more flexibility. From an employee perspective, workers gain flexibility, decrease commuting time and increase productivity and work/life balance. Global Workplace Analytics found that two-thirds of people want to work from home and that 36 percent of workers would choose the flexibility of working from home over a pay raise.<sup>2</sup>

#### **Telecommuting: Factors to consider**

Companies need to take many factors into account when developing telecommuting and mobile office policies. One of the most important things to consider is the health and safety of employees. Many companies allow employees to bring their own devices and employees are choosing all manner of tablets, smartphones, laptops and desktop computers.

Mobile workers may work out of a set room in their house, but more often than not, they are working at a kitchen table or a cheap desk that may have been purchased without consideration of ergonomic design. They may also spend a portion of their time working out of their cars on devices that require them to sit in awkward positions or at coffee shops, where they work at a table or counter. Mobile workers can get injured just as easily as any office worker, if their work environment and equipment are not set up properly (ergonomically) for them.

Mobile workers may be exposed to the risk factors associated with repetitive strain injuries when using handheld or other electronics devices in non-standard furniture set ups. "Blackberry Thumb," "iPod finger" and "Nintendinitis" are all forms of Carpal Tunnel Syndrome, De Quervain's

tenosynovitis and tendinitis that can cause pain, weakness and numbness in the hands, fingers, thumbs and wrists.

Frequent users of laptops often complain of neck and upper back pain. The risk factors include holding a hand-held device for prolonged periods, hunching forward over laptops or hand-held devices and bending the neck or back forward, repetitive use of the thumb or fingers, working at high counters/desks/tables and awkward wrist and finger/thumb positions. Many people associate neck and back pain with sleeping incorrectly, a poor mattress or old age, but this is frequently a result of improper workstation and device set up.

There is no limit to the places that mobile employees can work. For those who plan to do so on a prolonged basis, it is important to ensure they set up optimally to avoid injuries. Here are some common issues that mobile workers face, with some possible solutions.

#### Poor standards lead to poor postures

In developing telecommuting policies, setting furniture and equipment standards is often one of the trickiest parts. Employees don't generally want to replace furniture or equipment that they already have if the company isn't willing to compensate them for it.

#### Desks

Many workers who are used to working at a desktop computer will plan to work at a desk or table when they work from home. If they already have a desk situated in a spare bedroom or home office, it may not meet proper standards.

Standard-height desks or kitchen tables are generally too high for most people in terms of keyboard and mouse usage. This causes them to sit too high in the chair and perch on the edge, or hold awkward wrist positions with pressure points from the desk edge.



It is always best if employees sit with feet flat on the floor and keyboard and mouse situated at the 90-degree bent elbow height. This often requires a desk with a height-adjustable keyboard tray. It is important that the employee has purchased a desk that is sturdy enough to be able to support the weight of a keyboard tray. Some desks made of MDF board may not be suitable. It is common to find employees have purchased desks that come with a keyboard "drawer," which is designed to hold a keyboard and mouse. A frequent problem with these is that they are not height-adjustable (thus they are only suitable for a certain height of employee) and they are often not wide enough for both keyboard and mouse to sit side by side. Ideally, these trays should be 27 inches wide.



#### Chairs

Companies are encouraged to set a standard for the type of chair that mobile workers use. There are so many poor chairs on the market, many of them with the word "ergonomic" in the name, but that offer little to no proper back support and adjustability. A mobile worker sitting all day in a home office needs proper support to be comfortable.

#### **Devices**

Cell phones, tablets and laptops can kill backs, necks and hands. Most workers have smartphones and most mobile workers will use these along with their computers. Often, phones are held by hand with users bending their heads downward to view the screen. This can cause issues with the muscles in the back of the neck that support the head.

An article written by Dr. Joshua M. Ammerman discusses a computer model created by Kenneth K. Hansraj, MD, chief of spine surgery at New York Spine Surgery and Rehabilitation Medicine. This model indicates that the strain on your neck rises as the forward angle of your head increases.<sup>3</sup>

#### He found the following:

- 15 degrees of forward tilt may equate to a head weighing 27 pounds.
- At 30 degrees forward, the strain on the neck equals that of a 40-pound head.
- The greater the angle, the greater the strain: 45 degrees forward equals 49 pounds of strain and 60 degrees forward equals 60 pounds.





As the head comes forward, the shoulders also round, which creates poor posture over time. Using a cell phone frequently throughout the day can contribute to a host of issues over time, including headaches, sore neck and upper back, and pressure on nerves down the arms. The same thing happens when using a tablet or a laptop. If placed flat on a table, the head and upper body bend forward to view.

Another area that is affected through frequent use of smartphones and tablets is the hands. A consistent problem with touch-screen keyboards is that they lack tactile feedback and don't move or offer resistance when pressed. According to Alan Hedge, director of the Human Factors and Ergonomics Laboratory at Cornell University, this results in users striking virtual keys with as much as eight times the force they use to tap real ones, which can put strain on the fingers, wrist and forearm.<sup>4</sup>

To solve this problem, it is best if phones are used only for short periods or with blue-tooth keyboards or voice-recognition software. Tablets should be angled on desk surfaces. Laptops should be used with a separate keyboard and mouse and with either a docking station and separate monitor or raised to the correct eye height. Again, it is important to set the correct height for the keyboard and mouse.

#### **Options**

Mobile workers tend to experience fewer disruptions than traditional office workers and thus may spend too many hours working in one position. However, they have many options when selecting where to work. This can be a benefit as they are able to change their postures throughout the day.

They could stand at the kitchen island and work for a short time or bring their laptop to the couch and work on it there. Holding the laptop in their laps is actually not bad if they are reclined as their knees can hold the laptop in a raised position with the keyboard and mouse angled downward. This brings the screen close to their eyes and the keys close to their fingers. If working out of a hotel,

this is actually the best position for using a laptop while lying in bed.

Working at a table in a coffee shop makes for an awkward posture as described above; however, if only done for short stints occasionally, it can offer a nice change of scenery.

#### Vehicle ergonomics

A mobile worker may choose to work in a car with a laptop. The difficulty with this is that the laptop is often situated to the side, either in a laptop holder or on the console. A person sitting in the driver's seat will have to twist to type and view the screen due to the steering wheel in front of them. This twisted posture can place strain on the muscles in the lower and upper back and neck.

Depending on the length of time that an employee spends on a laptop in a vehicle, measures can be taken to ensure the working postures are more optimal. Sitting in the passenger seat with the laptop in the lap or on a laptop holder in front of the passenger seat can help employees to avoid twisting.

Placing the laptop into a holder on the steering wheel can bring the laptop into a better position as well, as long as the seat can be pushed back far enough.

There are many benefits to having mobile workers in your organization. As your company is putting together policies for communication, hours of work and safety, don't forget one of the most important — the standards for furniture, types of equipment to be used and guidelines on lengths of time spent in different positions is essential to ensure injuries don't occur. FMJ

#### REFERENCES

- Global Workplace Analytics, globalworkplaceanalytics.com/ telecommuting-statistics
- Global Workplace Analytics, globalworkplaceanalytics.com/ resources/costs-benefits
- Joshua M. Ammerman, MD. Is Your Cell Phone Killing Your Back?
   Spineuniverse. www.spineuniverse.com/wellness/ergonomics/ your-cell-phone-killing-your-back.
- InfoWorld, by Franklin Tessler, MD, CM. The hidden danger of touch screens. Jan. 11, 2012. www.infoworld.com/article/2618327/ laptop-computers/the-hidden-danger-of-touchscreens.html.



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# MEMBERS OF THE MONTH

s members of the world's premier association with a network of more than 24,000 facility management professionals, IFMA recognizes how hard you work in your careers and in advancing the FM profession. It is through members such as you that the association has had a positive influence and made a difference in increasing the awareness of facility management.

In 2015 IFMA committed to further recognizing your accomplishments within the industry by developing a Member of the Month program. Members selected for this honor will gain additional recognition from their peers and IFMA.

Please join us in congratulating our most recent Member of the Month recipients, Mayra Portalatin (July 2015) and Leo **Somma** (August 2015). Refer to the Member of the Month podcasts linked in FMJ online to hear directly from them.

# **IFMA NEEDS YOUR HELP!**

Nominate a member who has made a difference in the FM industry at www.ifma. org/membership/ member-of-the-month or contact Senior **Manager of Membership** Lauren Krueger at lauren.krueger@ifma. org for information on the nominating process.



# **IULY 2015**

# MAYRA PORTALATIN RS, SFP, LEED AP O&M

Portalatin is a civil and environmental engineer with more than 15 years of facility management experience. A senior professional at Facility Engineering Associates, she has worked with clients

in a variety projects, including building investigations ranging from environmental to building condition assessments. During her tenure at FEA, her practice has extended from evaluation of the built environment to the facility management area — including maintenance and operations of building systems, facility management technology, sustainability and energy management, and training of management and engineering staff in topics ranging from hazardous materials management to sustainability.

Portalatin has been involved with IFMA for more than five years through course instruction and as an IFMA instructor for the Sustainability Facility Professional® (SFP®). In 2011 she became involved with the Capital Chapter of IFMA, joining their professional development committee. In 2013 she became the chapter's communications chair where she worked on revising the newsletter, increasing social media use and revamping the website. She is currently the professional development co-chair and is working on starting an outreach program to educate high school students about facility management as a career.

Portalatin has been an instructor, and at times a developer, for the Leadership in Energy and Environmental Design (LEED®) Green Associate and LEED Accredited Professional review courses, as well as for U.S. Green Building Council-approved courses.

In addition, she was one of the main course developers for George Mason University's Office of Continuing Education Sustainability Certificate Program, is currently teaching a facility management technology course in The Catholic University's master's program for facility management and co-authored IFMA's sustainability "How-to" Guide on Green Rating Systems.

# **AUGUST 2015**



management and administration.

Somma has more than 34 years of experience in day-to-day operations of facility systems, services and power plants. Twenty-nine of those years include managerial experience with emphasis on facility management principles and practices, engineering project management, facility planning, financial

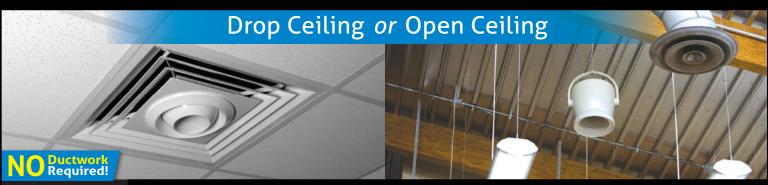
He holds a Master in Business Administration, a Master of Science in Nuclear/Mechanical Engineering and a Bachelor of Science in Electrical Engineering. He is also a current Certified Facility Manager®

(CFM®), Sustainability Facility Professional® (SFP®) and Facility Management Professional™ (FMP®).

Somma has been an active member in the Long Island Chapter of IFMA for the past six years and is currently working with the chapter to begin a CFM study group. He was one of the first CFMs at Brookhaven National Laboratory (BNL) and initiated a CFM self-study group that led to four of BNL's facility managers to achieve the CFM credential. Somma has also introduced IFMA's training and credential programs to BNL's facility staff which led to more than 30 members obtaining FMP and SFP credentials.

Lastly, he is working on becoming a certified IFMA FMP instructor and plans to volunteer to participate as a subject matter expert for IFMA's global job task analysis.





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# A NEW SCIENCE TO WATCH OR FM

# BY ERIK JASPERS

n his book "Social Physics" Professor Alex Pentland (head of Media Labs at the Massachusetts Institute of Technology (MIT) and a member of the World Economic Forum¹) describes a new science called social physics. This new science combines elements of social sciences, economics and mathematics, but perhaps the most striking aspect of social physics is that it uses information technology to record actual human behavior and big-data-based analytics2 to assess and understand behavioral patterns.

The book describes some astonishing new insights around phenomena that relate to productivity, innovation and human behavior.

This article aims to discuss part of the content of the book and tries to translate some of its takeaways to the field of facility management. As such, this article extends an invitation to acquire this publication and learn from its contents yourself.

# **Productivity**

We define FM as "ensuring functionality of the built environment by integrating people, place, process and technology." In the practical sense this usually means we provide environments in which people can work and create value for the organizations with which they are associated.

From this background it is not surprising that we often think about principles of productivity and how the workplaces we provide can foster that. Workplace productivity really is one of the holy grails within FM.

The IFMA Workplace Evolutionaries (WE) Community of Practice<sup>3</sup> website is populated with lots of papers and webcasts relating to this topic. The notion of enhancing productivity centers the debate on what constitutes a good workplace. Over the past decade we have seen major shifts in thinking around workplace design as well as (business) models in providing them, in general referred to as "workplace innovation" and "the new world of work." Within IFMA, WE is the place to go to for in-depth conversations around this topic.

In the midst of all conversations, we should, however, continually consider the question: How do we define productivity?

Why is it important to dwell on the definition? Well, the way we perceive and define productivity may narrow down our thinking of how to support and enhance it. It is on this question of definition that social physics provides new insights.

The concepts of productivity and efficiency were first defined by Taylor who lived during the Industrial Revolution (1856-1915). It was during this time that we started to build factories where people worked together to produce things; the first time that industrial processes were being developed.

It is no coincidence that the first manifestations of our facility management profession emerged around that time as well.

In this context, productivity was often defined in terms of increased output, the efficiency of work and producing more units per unit of time. We created more efficient production means, replacing manual labor with mechanization to do more in less time.4 In his movie Modern Times, Charlie Chaplin humorously pictured the then-emerging notion of productivity, implicitly making a statement on these new pressures in his time.

Do we now (some 100 years later) really take a different view on productivity? Perhaps not, or at least today's view is not fundamentally different. Even in conversations about workplace innovation, productivity is related to output.

Within the new generation of workplace concepts, topics such as managers needing to adapt from control- to outputdriven approaches since employees now work at various locations, are emerging. This is based on the notion that one moves to management as a result of favorable measurable output. This approach is in fact not very different from

the concepts defined by Taylor: faster output and efficient processes relates in some ways to production volumes.

# Social physics and productivity

Social physics takes a fundamentally different approach toward notions around productivity. The pivotal objective in this new science is to gain understanding of how human behavior is influenced by the exchange of ideas, and how people collaborate to discover strategies, select them and coordinate activities to implement them. This can also be read as a definition of work.

Pentland explicitly states that the ability of societies (in our context read: our workforces) to discover ideas and adopt them in new practices is a key differentiator for success. In the book, this assertion is supported by a number of experiments, based on real-time measuring of human behaviors and interactions and at the same time measuring their output or rate of success.

Discovering and adopting new ideas is also known as innovation. In all recent issues of FMJ, the word innovation is used and described multiple times in different contexts, and FMJ is not an exception. A dominant message in publications referring to innovation is that organizations need to innovate in order to stay relevant and that innovations need to take place at an ever-faster pace. It is here where social physics links up to our world and notions of productivity by presenting new views on how people work and what makes them more successful.

Based on the research of the MIT teams working on this subject, Pentland describes how people in networks learn. He describes the phenomena of social learning as a very fast way of acquiring information in which people learn by interacting with others. Examples of this are looking at exemplary behavior of others or listening to stories that others tell. Social learning has been an inherent way of learning for humans for thousands of years. It comes naturally to human beings.

On the other hand, Pentland denotes structured learning as a much slower and a newer form of learning to us. An example of this is reading.

A simple example of this contrast in learning is buying a new brand of smartphone with which the user has not previously worked. To learn to operate this device, the user can either read the manual from cover to cover or ask someone how to use it and start from there. Most people prefer the latter as it is much faster and easier.

Pentland's research describes how social learning evolves. Societies (like organizations and companies) consist of people who are socially connected in one way or another.







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Every individual has close and more distant connections. Within every organization (society) there are multiple groups of people who are more tightly connected (e.g., departments or teams).

The first stage of social learning, in which individuals interact with others and exchange ideas, is defined as exploration. In the second stage the valuable ideas are identified and put to practice, becoming embedded in the practices of the community (or team/organization). Pentland refers to this as engagement.

A compelling case of how this social learning influences productivity is described in the book by one case in which a number of financial traders dealing on the same trading platform were followed for a long period. Their individual interactions were measured in detail using purpose-built devices called sociometers that captured their interactions with others. In addition, all of their activities on PCs, mobiles and tablets were monitored and the results of their trading activities in terms of profit were retrieved from the trading platform. The resulting large, diverse and highly descriptive dataset was analyzed.

The performance (productivity) of all traders in the experiment are depicted by Figure 1.5

Analysis of the chart shows that the traders can be subdivided into three groups. The first group of traders operated largely individually, with little interaction with others. Pentland denoted the group as isolated people. Their ROI-based productivity was the lowest (around factor 1). The second group (to the right) are traders who interacted intensively with others, allowing for the exchange of ideas. However, these traders mainly interacted with a small group of others whom they knew very well, meaning that the same ideas were often reiterated within the group. Pentland denotes this as the echo chamber. This group was significantly more productive than the isolated traders.

However, the most productive group consisted of traders who took a middle position, interacting regularly among one another but also with others outside their inner circle (see the arrow). This way, new ideas were more successfully discovered and implemented. This result indicates that the more a group of people is able to discover new ideas and put the valuable ones to use, the better their results.

It also shows that the rate of success is not only dependent on the rate of ideas being shared. Diversity in contacts seems to matter.

# Relevance for FM?

What lessons are there to be learned from this? It is only sensible to be cautious here. It would be great if research in

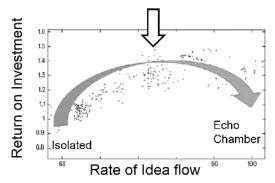


FIGURE 1 Derived from "Social Physics" by A. Pentland a.o.

FM linked with social physics and put some of its principles to the test. Leaving this call aside, the FM field can already benefit from some of the existing insights of social physics.

We provide places for people to work. When we (partially) redefine the productivity factor along the lines described, fostering the exchange and adoption of new ideas, we should consider providing workplaces that foster interactions within our workforces and explicitly facilitate interactions between more distant colleagues and even outsiders.

For years we have planned spaces in accordance with either organizational structures (departments) or dominant processes under the notion that people who relate in a functional way should be close (the Tayloristic approach). We used to call that adjacency planning.

The lessons that social physics brings to FM challenge the assumptions behind this practice. Does this type of planning really foster productivity or are we creating echo chambers?

In his paper, Work and Workplaces in the Digital City, author Andrew Laing (AECOM and Columbia University) describes three new workplace provisioning models emerging in the western societies: coworking, cohabiting and open house.

The unifying element among these models is that each brings people together from different backgrounds, organizations and companies. This in itself at least creates the opportunity for fruitful exploration of new ideas from outside the organizational networks.

It is striking to see that statements about why organizations adopt particular models include the desire to improve innovation.

Perhaps we should think of defining diverse workplace strategies for our organizations which encompass a variety of delivery models and workplace concepts to provide the contexts for exploration and environments that facilitate engagement. The question is: what types of environments best support activities related to engagement? What do they look like?

At least as interesting is the way in which social physics scientists do their research. The key difference here is that they use massive data capture and analytics to understand real behavior and results.

The research methods described in this book may inspire high-profile practitioners and researchers in our field. We are accustomed to basic data-gathering tactics, often based on inquiries about individuals' experiences (surveys). Surveys can be useful tools but also have limitations. Social physics research methods take data collection and analysis to another level, using new technologies that are available today.

# There is more

The footprint of social physics as described in the book is a wider one and includes mathematically describing human behavior, creating the ability to predict and influence it. This may provide fuel for a future article. FMJ

# REFERENCES

A comprehensive and integrated platform to strategically shape global, regional, national and industry agendas. The forum helps the foremost political, business and other leaders of society to improve the state of the world, serving as an independent

- and impartial partner and acting as the officially recognized International Institution for Public-Private Cooperation.
- High-volume, high-velocity and high-variety information assets
- 3. WE is IFMA's global workplace community where workplacerelated research and practices are shared.
- Note that efficiency in terms of using less resources for the same output was not such a topic at that time.
- Original figure has been edited to include the labels Isolated and Echo Chamber as well as the arrow for legibility in the context of this article.



Erik Jaspers works in product strategy and innovation with Planon Software. He has more than 30 years of experience in IT and has held various positions in project and information management for multinational companies like ATOS (Origin) and Philips.

Jaspers contributed to a prize-winning scientific publication on agile product management (2009) as well as the IFMA publications Work on the Move (2011) and Technology for Facility Managers (2012). He is member of the IFMA Foundation board of trustees and co-chair of their knowledge management committee. He is also member of the Workplace Evolutionaries workplace innovation leadership team and the IFMA Research Committee.



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# IHA

BY IOHN RINGNESS

"COURAGE IS NOT SIMPLY ONE OF THE VIRTUES."



# **Smartphones**

If we take a moment to review the present reality of smartphones' market penetration, it is staggering to see the statistics:

- In 2014, for the first time in history, the number of global smartphone users surpassed the number of desktop users.
- According to a Gartner study from 2013, a third of business intelligence users access software dashboards from mobile devices.
- Current smartphone users amount to approximately 1.6 billion and are expected to surpass 2 billion users by 2016 according to eMarketer.

# **Smartphone apps**

According to Statista, the number of apps available as of July 2015 was 1,600,000 on Google Play and 1,500,000 on the iTunes Store. In addition, the number of apps available on Google Play has grown by more than 300,000 each year for the past four years.

There are mobile apps for almost everything conceivable. There are those which help us track our finances, our body weight and our continuing education or professional development points. There are security webcams connected to our homes and offices. We can deposit funds into our bank accounts by taking a photo of a check. We can order a car, book a flight, and take videos, photos and soundbites to send to family and friends. If we are in a life-threatening situation, we can press a unique sequence on our phones to have an app automatically transmit the GPS location, a 10-second audio file and a photo to a source of help.

Some smartphones have apps that can monitor heart rate, oxygen saturation of blood and amount of ultraviolet radiation from the sun. Smartphones are starting to replace our television remote controls and devices for scanning documents. Games, social media feeds and weather apps are all readily available.

# FM smartphone apps

Within the realm of FM, mobile apps are available to assist with a number of functions. These can be used for wayfinding within facilities, providing digital data for facility assets like motor efficiency and communicating real-time costs and electricity consumption by individual assets. The list of these proprietary apps continues to grow every month.

Let's turn our attention to mobile apps that can assist with facility management-related tasks and which are available for free at the Google Play store:

- How many times have you fumbled trying to find your way in the dark because you needed a flashlight? Try "Flashlight" by Surpax.
- Have you ever wanted to measure the current sound level in decibels? Try "Sound Meter" by Smart Tools.

- "Handyman Calculator" by Kalyani the number of calculations this free app is capable of performing will blow you away. Power conversion? Yes. Rainwater calculator? Yes. Ohm's Law calculator? Yes. Paint calculator? Yes. There are dozens of calculations within this app!
- How many lux is the light level in a particular space? Try "Lux" by Symbol Mobile, which can also inform you what the lux level should be for different built spaces.
- Did you know that you can save energy by installing a V-notched fan belt versus a wrapped-style fan belt? How much? Try "Belt Efficiency" by RIDGID Software Solutions featuring Browning. They have done an excellent job, as the app permits the input of energy costs, size of motors, hours of operation, etc. to calculate annual savings. I personally used this app in India to determine savings in rupees.
- How many times have you been in a facility and needed to quickly measure an area, and resorted to counting ceiling or floor tiles to estimate the measurement? There's an app for that, too. Try "Smart Measure" by Smart Tools.

Keep in mind that these are free apps; however many other apps have further enhancements and are available for a price — some may cost a whopping US\$4.99 to install.

# **FMCC** mobile app

With this penetration of data on the smartphone market and the feedback from its annual membership satisfaction survey, the board of IFMA's Facility Management Consultants Council (FMCC) approved the development of an FMCC smartphone app.

FMCC's vision is "to be the resource and voice for facility management consultants worldwide to leverage our collective expertise to benefit IFMA members and the facility management profession." With this vision in mind, the council



leadership wanted to create an app-based digital database to help the FM community and offer members-only benefits.

The app was conceived to create a digital space where FM professionals can instantly and effortlessly access the council's complimentary podcasts and webinars, read the council's blogs, register for webinars, read FMJ, join IFMA, engage with

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the IFMA Foundation, connect with one another and access a number of other pieces of data.

To begin, the council leadership prepared an abstract outlining the desired functionality and look, and then initiated an exercise to source a provider to build the app.

The first potential development company was based in the U.K. and offered a package for US\$15,000. Then a council member from Europe suggested an equally qualified company in India which could produce the app for US\$5,000.

Another consultant suggested reviewing the do-it-yourself apps on the market. A market search was conducted, a short list prepared and a contract awarded to a company that helped develop the initial framework. They also published to both Google Play and iTunes stores for less than US\$50 per month. It was painless to set up (even with the extra US\$300 to access their hire-a-professional option). Once the app product concept had been developed, it only took 14 days to have the app approved and published by Apple and Google.

The app is maintained by council volunteers, who edit as needed. If you have suggestions for improvements, the council would appreciate your feedback. You can download the app on Google Play and the iTunes App Store by searching for "FM consultants."

# **Collaborative learning**

If we shift perspective slightly and look at how mobile apps are being utilized in the consumer sphere, it gives us a picture of what might one day be possible in the facility management industry.

If you are not using this app already, take a look at "Lose It." This app's incredible interface manages immense data records and visually portrays the results. It personifies, "what is measured, is managed."

Users input how much and what type of food they eat daily, and based on input of the type and duration of exercise, the app calculates net caloric count. It is compared to a predetermined daily "budget" of calories. This data is then graphed and communicated to the user.

The most fascinating aspect is the app's ability to pull blended data from multiple sources. For example, the app lists calories for countless food types but is also connected to data from restaurant chains, allowing users to find the amount of calories in a medium French fries at McDonalds or a grande latte at Starbucks. It also integrates with supermarket chains to depict the calorie count for available food items and uses a global positioning system (GPS) to show you which restaurants are closest to you. The premium version allows you to forecast, and other features, for a fee.

While this may sound simple, the application and integration behind it is phenomenal, and amazingly, the basic features are free. Imagine what would happen if we managed the data in our facilities this way, with real-time results and in a sustainable manner.

# The future

Picture an FM app that connects to real-time local electricity costs, factors in demand-side tiers and leverages IFMA's benchmarking reports featuring regional productivity, labor and retail costs (including consumables like fan belts, cleaning chemicals and filters). How about interoperability within building management systems or drones delivering supplies to GPS coordinates sent from an app on a smartphone?

In the future, FMs may have access to real-time FM benchmarking data and the ability to instantly correlate that data with current dynamics, regardless of the requirements in the people, assets, process, technology or geographical location. Perhaps one day, we will see a facility management app that connects to big data, maximizing the potential of all available connected resources.

In the meantime, embrace courage by grabbing a surfboard for the big data wave that is quickly approaching. Are you ready for it? Will you be a thought leader in this domain? A great first step is to download a few apps and see how they can help you navigate various areas of your life.

As with any FM process, we must from time to time measure and verify the tools and procedures we utilize and make refinements accordingly. What's certain is that apps are swiftly changing the landscape of facility management. FMJ

# RESOURCES

- www.businessinsider.com/mobile-will-eclipse-desktopby-2014-2012-6
- www.logianalytics.com/resources/resources-library/dashboardroundup-30-inspiring-examples-of-effective-dashboard-design-part-5/
- www.emarketer.com/article/2-billion-consumers-worldwidesmartphones-by-2016/1011694
- www.smartinsights.com/mobile-marketing/mobile-marketinganalytics/mobile-marketing-statistics



John Ringness, SFP, MRICS, is the CEO of NEXT FMS, an international FM solutions company based in Vancouver, Canada. Within IFMA, Ringness is the immediate past president of the Facility Management Consultants Council (FMCC); a member of the Environmental Stewardship and Sustainability Strategic Advisory

Group, the Workplace Evolutionaries Community of Practice and the Corporate Facilities Council; and serves as FMCC's global liaison for India.

His passion is to provide sustainable business solutions through consulting, training and technology, especially in the international context.

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# THE FUTURE OF FM KNOWLEDGE SHARING

The Knowledge Strategy initiative at IFMA has reached a major milestone! We are ready to launch the first phase of our Knowledge Library, a key member-facing deliverable that will be part of your IFMA for years to come.

But let me step back for a second. The Knowledge Strategy Task Force began nearly two and a half years ago with the strength and drive of two people: Andrea Sanchez, IFMA's senior director, strategic communications, and Kevin O'Toole, former IFMA board member. With the ideas they seeded, KS (as it is affectionately known) was grown, fostered and will effectively change the IFMA experience for the foreseeable future. That is because KS will not only change the member experience but is fundamentally aimed at changing the way IFMA staffers operate.

What does this mean for you as a member of IFMA? It means a phase shift in your relationship with your association: My IFMA is Your IFMA, and vice versa.

# New IFMA Knowledge Library to launch at World Workplace

From my perspective, I have been extremely lucky to chair the KS Task Force over the past 18 months and have been able to see the challenge that Kevin and Andrea presented to the board of directors come to fruition. As a member you will see our first-phase deliverable, the Knowledge Library, when it launches at World Workplace in Denver, Colorado, USA. This tool seeks to bring the following to you, our members:

- Wetted material. We know that there is a World Wide Web out there, full of information for our members. Some information purports best practices, other resources offer benchmarks and still others outline trends in facility management. Content within IFMA's Knowledge Library has been vetted by subject matter experts your peers so you can be confident that the information can be trusted and used immediately.
- Content repository. How many places might you need to go to get an answer? IFMA's membership as a whole has likely encountered most, if not all, of the challenges that you may face in your career. The Knowledge Library is a place to house the collective knowledge of our membership.

# GEOFF WILLIAMS, FMP

Member, IFMA 2015-16 Board of Directors Chair, IFMA Knowledge Strategy Task Force



Collaborative space with other members. Members
come together in person and virtually in a variety
of different ways. IFMA knows that there are many
ways to accomplish the same goals and the Knowledge
Library allows our members the opportunity to share.

The above only scratches the surface of the excitement surrounding the Knowledge Library. Please visit www.ifma.org/knowledgelibrary after Oct. 7 to see it for yourself.

# Looking toward the future

I mentioned earlier that we are launching the first phase of Knowledge Library. So, you may ask, what is in store for the Knowledge Library in the future? Well, Phase 1 is just the beginning; the following will be rolling out as part of future phases in 2016 and beyond:

- Content just for you. Tired of searching for items that interest you? In Phase 2 the Knowledge Library will get to know you and start recommending content based upon your profile, past interests and more!
- Matching members with members. Future phases of Knowledge Library will help you find peers that have faced, or are facing, similar challenges to those you are encountering. Assistance will be only a member away.
- Voice of the member. Future phases of Knowledge Library will be focused on the changing needs of you, our members. As a result, your feedback related to Phase 1 will directly influence future phases.

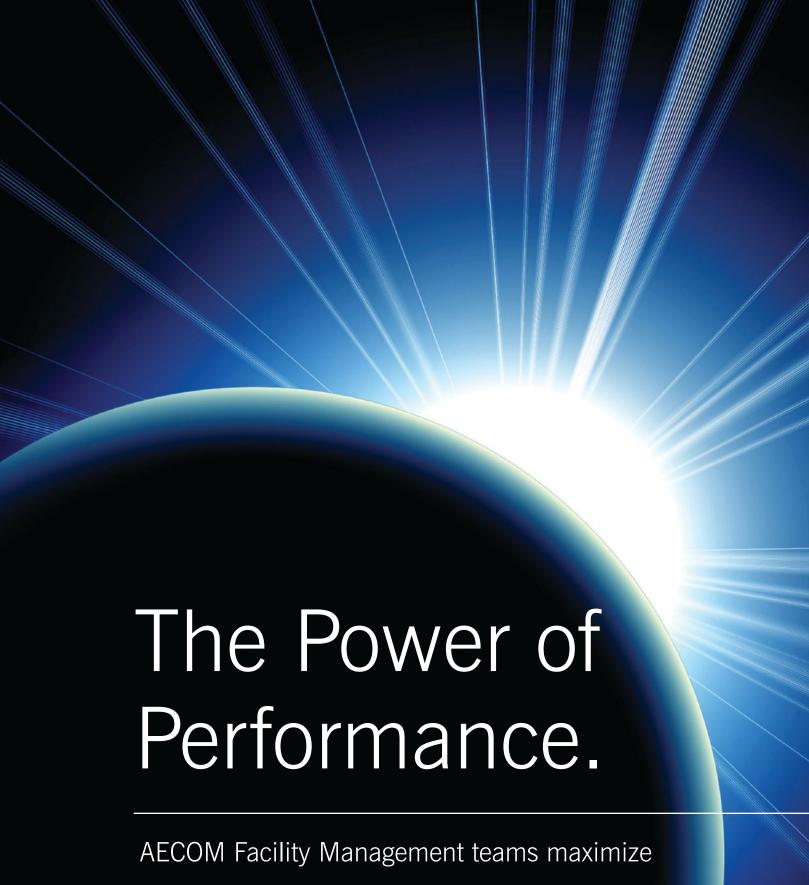
In conclusion, I would like to thank the talented and dedicated team that has brought you the Knowledge Library. Without their tireless dedication, this launch would not be possible!

# **IFMA STAFF**

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# DOUG UNDERWOOD?



One of the best ways to start your experience at IFMA's World Workplace Conference and Expo is to spend a morning playing a round of golf with colleagues, customers and friends. In a longstanding tradition, the IFMA Utilities Council and the IFMA Foundation co-host a fundraising golf tournament each year on the Tuesday preceding World Workplace.

The tournament is a best ball scramble format intended for players of all levels. Proceeds are used to fund scholarships awarded through the IFMA Foundation to undergraduate or graduate students majoring in facility management and to pay the recipients' expenses to attend World Workplace. By participating in the event, students benefit from meeting practicing facility managers and facility business partners to learn about current issues that relate to the profession.

This year the tournament will be at the renowned Fossil Trace Golf Club in Golden, Colorado, USA on Oct. 6 with the support of title sponsor DTZ, a UGL company.

What makes the 2015 event so special is that it marks the 25<sup>th</sup> anniversary of the annual Doug Underwood Memorial Golf Tournament. To mark this historic occasion, we'll take a look back at how the event came to be and answer, "Who was Doug Underwood and why is this golf tournament named in his honor?"

# **Tournament history**

The tournament was started in 1991 in San

Diego, California, USA at the Steel Canyon Golf Club. It began as a networking function to connect facility professionals with the vendors with whom they dealt, as well as to allow them to meet new vendors.

The networking event was one of the first tournaments to be held at Steel Canyon, as the course was new at the time. The clubhouse wasn't built yet and the pro shop was located in a trailer, so the awards ceremony for the tournament was held under a tent in the parking lot. Refreshments consisted of beer and soda in some coolers and sandwiches brought in by a deli. Prizes were a couple of office chairs, putters and leftover beer.

The following year, the tournament was held in New Orleans, where it began to be refined and improved upon in the years following its humble beginning. The tournament expenses were the main concern for the first few years, until the idea of having vendors sponsor holes along the course was proposed. Once vendor sponsorships were instituted, the event began to generate more money than was needed to run the tournament.

The organizers originally intended to donate the surplus proceeds from the tournament to the IFMA Foundation general fund. However, the Utilities Council eventually decided to earmark this money more specifically for charitable contributions in the form of scholarships for students within FM curricula in order to more significantly impact the field of facility management.

The Doug Underwood/Utilities Council Scholarship was created to award US\$5,000 scholarships to students aspiring to be facility managers, and was endowed in 1996 by the Houston Chapter of IFMA. The remaining funds are used for scholarship travel expenses, IFMA Foundation expenses and funding future tournaments. While the tournament itself exists for networking and entertainment purposes, the underlying goal has become raising money to aid in the development of the future of facility management.

In 2010 the Utilities Council awarded US\$20,000 in scholarships (four US\$5,000 scholarships) in recognition of the 20<sup>th</sup> anniversary of the golf tournament.

In 2015 the Utilities Council plans to award US\$25,000 in scholarships in recognition of the 25<sup>th</sup> anniversary of the golf tournament.

# Who was Doug Underwood?

Underwood was vice president of facilities for Houston Lighting & Power Co. (now Reliant Energy) in Houston, Texas, USA. He served in several leadership positions in both the IFMA Houston Chapter and the Utilities Council. He was a mentor and role model in both fledgling organizations. He provided a vision that took the Utilities Council from its humble beginnings to its success of today.

Underwood attended World Workplace Utilities Council meetings from 1988 through 1992. He was a member of the planning team for the first golf tournament in San Diego, along with close friend and FM leader at San Diego Gas & Electric Co., Larry Imrie, as well as 15T IFMA GOLF TOURNAMENT SPONSORED BY THE UTILITIES COUNCIL TO BENEFIT THE IFMA FOUNDATION



Flier for first ever IFMA Utilities Council and IFMA Foundation Golf Tournament.

THE GOLF TOURNAMENT HAS TRAVELED THROUGHOUT THE U.S. AND EVEN UP INTO CANADA AT THE FOLLOWING LOCATIONS:

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**2014** New Orleans, Stonebridge Golf Club

2013 Philadelphia, Ramblewood Country Club (Mount Laurel, New Jersey)

**2012** San Antonio. The Republic Golf Club

**2011** Phoenix, Whirlwind Golf Club

**2010** Atlanta, Stone Mountain Golf Club

2009 Orlando, Mystic Dunes Golf Club

2008 Dallas, Indian Creek Golf Club

2007 New Orleans, English Turn Golf and

2006 San Diego, Salt Creek Gold Club (formerly The Auld Course)

2005 Philadelphia, Northampton Valley Country Club

2004 Salt Lake City, South Mountain Golf Course

**2003** Dallas, Cowboys Golf Club

**2002** Toronto, Angus Glen Golf Club

2001 Kansas City, Dub's Dread Golf Club

2000 New Orleans

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**1998** Chicag

**1997** Dalla:

**1996** Salt Lake City

**1995** Mian

**1994** Saint Louis

993 Denvi

1**992** New Orleans

1991 San Diego, Steel Canyon Golf Clul

Ben Newell, Phil Wylezik and Joe Sclafani (Utilities Council president 1994-95). Underwood was chair elect of the council during World Workplace in 1991 served as council chair in 1992.

In the early '90s, Underwood succumbed to cancer after several years of battling the dreaded disease. He never gave up and always remained positive. After Underwood passed, the council wanted to honor his contributions and voted to name the tournament in his memory.

# **Comments from friends**

"My first Utilities Council meeting was in 1992, and the first council member I met, initially on the phone, was Doug. He helped me secure a room at one of his favorite hotels (the Hotel Monteleone), since all of the World Workplace hotels were booked. Now, every visit back to New Orleans involves me staying at the same hotel — my personal nod to Doug."

- JACKIE PARKS

"My first Utilities Council meeting was in 1991 when World Workplace was in San Diego. Doug was the council chairman and made all of us newbies feel like we were part of a great family that liked to have fun, and we did. In addition to being a passionate golfer, he was located in IFMA leadership's Texas backyard, so he was well connected."

– PHIL BOOKER

Here's what his hometown IFMA chapter in Houston had to say:

Doug was a very kind person; very well liked and easy to talk to. He formed the Utilities Council long before it was an official council in IFMA by getting related industry groups together to discuss FM. He was the person people gravitated to as he would genuinely listen and be concerned about your conversation. Doug represented the true FM attitude, was committed to customer service and most of all was just a great guy! FMJ

Thank you to the following contributors who provided the information on Doug Underwood to make this article possible: Phil Booker, Jackie Parks, Alison Rider, John Ritter, Joe Sclafani, Bart Surratt and Jeff Tafel.





# **Why Does Higher Education Accreditation Matter to the Future of FM?**



he IFMA Foundation accredits FM degree programs at colleges and universities around the world. This assures students, parents, employers and other stakeholders that the education offered by accredited institutions produces desired student outcomes in all 11 core competencies of FM. So, why does higher education accreditation matter to the future of the profession?

The Global Workforce Initiative (GWI) is intrinsically tied to the Accredited Degree Program (ADP), both of which are administered by the IFMA Foundation. The GWI aims to increase early teaching and awareness of the facility management profession.

Interest generated by the GWI should result in a higher volume of candidates applying to ADP colleges and universities around the world. In locations where high school and/or community college FM programs exist, there will be an expanding pipeline of students entering higher education institutions with the goal of furthering their FM education. Higher education institutions in those areas that do not currently offer FM education tracks should begin looking into adding degree programs in order to meet this growing demand.

For example, the IFMA New York City Chapter and the foundation are working with the New York City Department of Education on GWI initiatives. This

will likely result in a larger pool of FM candidates for ADP schools in the area. such as Pratt Institute and Technical Career Institute. However, in San Bernardino County, California, there are no local ADP colleges or universities, so the foundation and local IFMA chapters and volunteers are working with community colleges and higher education institutions in the area to establish a new FM degree program.

In addition, the foundation's Director Academic Affairs and Accreditation, Steve Lockwood, IFMA Fellow, is working with high school teachers to create the first coursework for high schools based on his unique background in teaching FM for many years and ongoing work with accredited schools.

To learn more about the great work of the GWI, read Nancy Johnson Sanguist's article on page 60 of this issue of FMJ and visit the foundation's website at www.ifmafoundation.org.

The IFMA Foundation is currently developing a world-wide, searchable directory of FM higher education which will be online prior to the close of 2015. The foundation and the Facility Management Accreditation Commission (FMAC) need help identifying all colleges and universities offering FM (or closely related) degrees. This information can be shared directly with Steve Lockwood at steve. lockwood@ifma.org.

# **IFMA Foundation Accredited Degree Programs 2015**

# Associate/Diploma

Community College of Philadelphia (U.S.) Technical Career Institute - College of Technology (U.S.) Temasek Polytechnic (Singapore)

# Undergraduate

Brigham Young University (U.S.) Conestoga College (Canada) Cornell University (U.S.) Ferris State University (U.S.) Florida A&M (U.S.) Hanzehogeschool Groningen (Netherlands) Leeds Beckett University (U.K.) Missouri State University (U.S.) NHTV Breda University of Applied Sciences (Netherlands) Saxion University of Applied Sciences (Netherlands) SIM University (Singapore) Southern Polytechnic State University (U.S.) Temple University (U.S.) University of Minnesota (U.S.) Wentworth Institute of Technology (U.S.) **Zurich University of Applied Sciences** (Switzerland)

# Graduate

Arizona State University (U.S.) Georgia Institute of Technology (U.S.) Hong Kong Polytechnic University (Hong Kong) Leeds Beckett University (U.K.) Pratt Institute (U.S.) Rochester Institute of Technology (U.S.) Texas A&M (U.S.) University College London (U.K.) University of Sydney (Australia) **Zurich University of Applied Sciences** (Switzerland)



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# Closing Achievement Gaps in High Schools and Community Colleges

IFMA FOUNDATION GLOBAL WORKFORCE INITIATIVE

# BY NANCY JOHNSON SANQUIST

The wonderful thing about the IFMA Foundation's Global Workforce Initiative (GWI) is that you never know from day to day when you are going to hear about a new program that is making more young people aware of the lucrative opportunities of a career in facility management.

# **GWI** defined

For a long time, the IFMA Foundation has been focused on expanding recognition of its Accredited Degree Programs (ADPs) at colleges and universities around the world, as well as on continuing to grow the US\$1.3 million in scholarships that the foundation has awarded to more than 450 students. Students in colleges and universities offering FM programs accredited by the IFMA Foundation's Facility Management Accreditation Commission (FMAC) have the unusual privilege of enjoying a nearly 100 percent graduation rate, excellent salaries and multiple job offers.

These programs now number 30 globally and more are on the way, so it is time, now more than ever, to ensure there is a healthy stream of new prospects entering and getting jobs through the ADPs. In 2014, the IFMA Foundation Board of Trustees decided it was time to focus on "making FM a career of choice" for high school and community college students. This meant providing FM courses to fuel the pipeline to ADP educational institutions and provide a clear pathway for future careers.

One of the exciting new focuses is called the Global Workforce Initiative (GWI). With the GWI, the IFMA Foundation is acting as a connector between business, government, high schools, colleges, universities, economic development and IFMA chapters/councils to grow the future FM workforce and fill the sizeable gap in FM jobs coming available as the baby boomers retire. Even though some students may not follow the traditional path of higher education, they may want at some time to obtain an FM certificate or degree later in life after they are able to see what FM is all about.

With three GWI pilot programs operating in the U.S. in the last year, 750 high school students in approximately 30 high schools have heard the word of FM with 12 IFMA chapters involved in related activities. In addition to the GWI, a trade-based high school in West Warwick, Rhode Island and JM Wright Technical High School in Stamford, Connecticut both currently teach FM. With programs like these, we are hoping that student demand will push higher education



John Carillo presents the GWI concept at IFMA's House of Delegates at the World Workplace 2014 Conference and Expo.

to develop more FM ADP programs, as well as sustain the existing ones.

# Beginnings of the GWI conversation in Florida

The following was recently reported by a new project called Community Conversations, led by Roscoe Hightower, who is professor of marketing/facility management in the School of Business and Industry at Florida A&M University (FAMU) and academic advisor to the foundation.

An invitation went out to parents and students in the community of Tallahassee, Florida, USA this spring to learn about the Global Workforce Initiative which is designed to make facility management a career of choice, beginning with awareness at the high school level. This was the second of two meetings, each of which attracted about 50 participants from the local community to hear about this new area of opportunity. The idea of these meetings was to involve the entire community, including parents, teachers, students, local business owners,

and local and regional government officials, in this introduction to FM discussion.

The National Education Association provided partial funding through its NEA Community Conversation Project which Dr. Hightower became aware of through his association with the United Faculty of Florida FAMU Chapter. The NEA grant is designed to assist schools in gaining community support to "close the achievement gaps through community conversations that lead to collective action." In addition, the Tallahassee Omega Lamp Lighters, a group of high-schoolaged young men who meet on a regular basis to improve their academic and social skills, provided aid in encouraging the community to attend these FM events.

Participants gathered at the Florida A&M University Developmental Research School (FAMU DRS), an institution founded in 1887 as a teacher training school for FAMU which added an elementary school in 1932, and later, a high school. By 1991, Florida legislation mandated that FAMU DRS become a public school district, but one where "the mission shall be the provision of a vehicle for the conduct of research, demonstration and evaluation regarding management, teaching and learning." It was fitting that Dr. Hightower's undergraduate and graduate facility management students facilitated the GWI conversation at this innovative school to introduce the community to the FM profession.

The action plan after this initial conversation is to follow this dialogue with other county public school districts in this Big Bend area of Florida, while at the same time improving the IFMA local student chapter's participation with the school's knowledge acquisition programs. The goal is to finally create, implement and leverage an FM curriculum in area high schools within five years.

# **Three GWI California initiatives**

There are currently three California initiatives related to the GWI: one in San Bernardino County, one in Silicon Valley and one in two locations of the California Community Colleges system.

## SAN BERNARDINO COUNTY ALLIANCE FOR EDUCATION

San Bernardino County (SBC) Alliance for Education is a critical initiative since SBC has the U.S.' poorest education system. The alliance was created to engage educators, encourage businesses to invest in their future workforces' education to produce students who have the right environment to achieve success from pre-kindergarten through elementary, high school, college and career opportunities. The foundation was fortunate to link up with Mary Jane Olhasso, the assistant executive officer of the county, who paved the way for GWI representatives to meet with the right educators to prepare a program for high school and community college students on the FM career path.

The local IFMA chapter is the connecting link between GWI and the county stakeholders. Steve Lockwood, the IFMA Foundation director of accreditation and academic affairs, along with several San Bernardino High School teachers, is developing a model high school curriculum that has modular components of the 11 IFMA core competencies that could be used anywhere in the U.S.

Meanwhile, Michael Cook, director of facilities for Kaiser Permanente Southern California, a large employer of FMs in SBC, is helping to develop an internship program and "Day in the Life of an FM" program with the Alliance for Education. In addition, there is ongoing development work for a strong connection to local community colleges that will be a pathway for these students to continue their facility management academic interests. In time we will look at developing the same modular components to be used outside of the U.S.

# IFMA SILICON VALLEY CHAPTER AND THE NETWORK FOR TEACHING ENTREPRENEURSHIP

In addition, the IFMA Silicon Valley Chapter is working on the GWI with the Network for Teaching Entrepreneurship. NFTE was created in New York City 30 years ago to provide programs that inspire young people from low-income communities to stay in school, recognize business opportunities and plan for successful futures. More than 600,000 young people have been involved with this program, and the IFMA Silicon Valley Chapter and the foundation have become involved with most of the 19 NFTE programs in the Bay Area of Northern California. They have been presenting FM as a career of choice and coaching, mentoring and volunteering as judges in local and regional competitions. Two of the schools' winners will compete at the national finalist level in October.

In a particularly successful presentation to high school students in the Bay Area, IFMA Foundation Chair John Carrillo gave a heartfelt story of his incredibly successful FM career. He shared his beginnings in a Mexican-American neighborhood near East Los Angeles and his use of the community college system to study architecture. Through superior athletic skills he was able to obtain a bachelor of science through a partial scholarship at California State Polytechnic University, Pomona. Upon graduation he started learning facility management, project management and strategic long-range planning at General Dynamics.

At that time, the aerospace industry was one of the leading market segments through which to understand the value of the emerging field of FM. Carillo later joined Northrop Grumman Corporation and an IFMA chapter and sent some of his key staff to the first IFMA seminar ever taught (note: the author of this article was the creator and instructor of that course). He has spent the last 24 years at AT&T where today he is director of corporate real estate for the western region and is responsible for 40 million square feet and a US\$250 million budget, in addition to serving as chair of the IFMA Foundation.

One student, Karla Iraheta, emailed Carillo after the event: "It was a pleasure having you as a guest speaker at Hayward High School. It was an honor meeting you, sir. I must say that I was quite shocked by all your achievements, starting from the low and rising up to the top. From the things that you said in your speech, I was inspired. Inspired to fight for what I believe and that we have to start from the bottom and work our way up in order to achieve our goals. Once again, thank you very much for giving us your time and presenting to us."

# **CALIFORNIA COMMUNITY COLLEGES SYSTEM**

The foundation is working with Catherine Ayers, the deputy sector navigator of the Doing What MATTERS™ for jobs and

the economy framework in the Bay Area and is responsible for energy efficiency and utilities. She is finding ways to help high schoolers transition to community college programs related to FM, construction, maintenance and energy efficiency. This partnership is also working to introduce an FM certificate program and provide internships for Bay Area community college students. If this program is successful, it could be rolled out to many other of the 112 community colleges in the state which collectively serve 2.1 million students.

# The critical role of chapters in GWI

There are currently great examples of IFMA chapters in North America that are working with high school students and partnering with local groups to introduce FM as a great career choice. They include:

- The New York City Chapter of IFMA has partnered with "Futures and Options" which empowers the city's underserved high school students to explore careers like FM and create paid internship opportunities to help them understand the work they would be doing in that job.
- The Minneapolis, Madison and Denver chapters of IFMA are partnering with Skills USA, a group that brings together high school students, teachers and industry to ensure there is the right workforce for American jobs. The chapters are concentrating on competitions in which FM is the main theme.

The Toronto Chapter of IFMA became an associate member of the Ontario School Counsellors Association in order to educate school counsellors, and in turn high school students, of post-secondary facility management education, as well as the career progression opportunities and success rates and achievement of FM professionals. They are able to refer interested students to Conestoga College, which has an IFMA Accredited Degree Program in architecture/project and facility management.

IFMA chapters and councils will play a critical role in the GWI, and the foundation is developing resources and training materials for local volunteer efforts to alert students, teachers, guidance counselors and parents to an exciting profession with high graduate placements and excellent starting salaries. In support of these efforts, the foundation is providing:

- GWI program prospectus (available now)
- FM internships board online (available now)
- Training for FM practitioners and students on FM internships (fall 2015)
- Introduction to FM presentation (fall 2015)
- FM educational career path (fall 2015)
- Student- and parent-focused introductory Web pages

- (Phase 1) and introduction to FM brochure (fall, 2015)
- "Day in the Life of an FM" site visit training and guidelines (winter/spring 2016)
- "What is FM?" student and parent video(s) (winter/spring 2016)
- Interactive website designed to introduce students to FM using gamification (2016)
- Full suite of FM training and introduction resources and guides for chapters and councils (2016-17)

## Conclusion

Little did the foundation's volunteers and staff think that writing an update so full of GWI activities around North America would be possible when we came up with the concept only a year and a half ago. There was a need for an initiative like this and the IFMA Foundation, board of trustees and volunteers are all excited about the work being accomplished as well as the possibilities for the future. The GWI will be rolling out globally but, like in North America, it will be very location-dependent and the state of FM education in each country will have to be considered along with how best to build the constituency according to regional and local conditions.

So stay tuned — the GWI may be coming to your chapter soon. Meanwhile, we hope that the FM bug has been planted in high schoolers' minds in places like Tallahassee, Minneapolis and Oakland. We boomers will sleep better knowing that there is a whole new workforce about to be trained in our incredible profession. And don't worry, Karla Iraheta — we are watching you in your FM career path and hope to support you for whatever you need in order to follow in John Carrillo's long footprints. FMJ



Nancy Johnson Sanquist, IFMA Fellow, AIA Associate, is real estate and workplace solutions strategist for Trimble. An internationally recognized technology specialist with 25 years of diverse experience in corporate real estate and facility management, Sanquist is a leader in the

field and created the first seminar for IFMA more than 20 years ago.

She has contributed substantially to the research and development of CRE and FM through her many written works, including the award-winning IFMA Foundation publication "Work on the Move." Additionally, she currently serves on the foundation's board of trustees.

The author would like to specially thank: Dr. Hightower, John Carrillo, Steve Lockwood, Jeff Tafel, Nick Heibein and Diane Coles Levine for giving me the much of the information for this article; and also my company, the Real Estate and Workplace Solutions division of Trimble, who when they first acquired Manhattan Software late last summer made the first sizable contribution to the GWI on a leap of faith which, I am happy to report, has paid off.



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- Project Management: Facility managers make use of all aspects of project management beginning with planning, scoping and scheduling, and ending with evaluating. Project planning and management are core skills in facility management. The skills are particularly important because of the wide range of projects assigned to the facility organization. Projects vary in scope, complexity, duration and financial risk.
- Finance and Business: Facility managers manage/oversee high-value assets that represent significant financial investment in technology, buildings, structures, interiors, exteriors and grounds. Since facility managers are typically responsible for the oversight, operation and maintenance of the buildings and grounds, as well as oversight of various service contracts, understanding the basics of finance and business is critical.
- Leadership and Strategy: To be effective, facility managers must develop strategies to successfully carry out major initiatives by influencing the decisions and attitudes of others. Effective strategies require that facility managers are able to integrate people, places, processes and technology. They must be able to align the facility portfolio with the entire organization's missions and available resources, and to be innovative in order to move forward with their staff and processes to respond to the ever-changing requirements.

The IFMA FMP Credential Program is the only tool you need to earn your FMP. The program will help you gain a solid understanding of the facility management profession and develop the knowledge and skills demanded by employers.

Earn the must have credential in Facility Management and gain a competitive advantage—earn the FMP!





"I recommend the FMP program to everyone that considers themselves a facility professional. The FMP credential helps professionals better understand and apply the core elements of the various FM disciplines, challenges their decision-making skills and sets the stage for the CFM credential. I feel stronger in my knowledge base knowing I passed the rigorous FMP online selfstudy program."

- Brian Rush, CFM, FMP



ATTRACTING THE FUTURE OF FACILITY MANAGEMENT



# **BY BILL CONLEY**

There's a prime candidate out there somewhere — someone who can come in and fill an open position, staffing needs or maybe even older shoes as their wearer walks away.

There is truth to the statement that no one is irreplaceable. Just as true, though, is the fact that there should be replacements, well trained and held in reserve, for the time when professionals move up in the ranks, or go home for life after work. New entrants into the workforce, whether after graduating from school, separating from the military or just changing careers, form a talent-rich pool of new facility

managers. Assuming they are smart, compassionate and possess a modicum of common sense (all critical traits in facility management), these are the types of recruits the profession needs.

The question then arises as to how the FM profession can be successfully marketed. When it comes to enticing students, recruiting candidates or just succession planning, this new generation of workers must be reached and enlisted to face the challenges and opportunities that await in FM. They need to be convinced that they can make a difference vis-à-vis the (built) environment.

It is no secret that the world in which we will be working in the near future presents many serious decisions. FM will need solutions and new generations will be faced with delivering them. The environment is on the verge of degrading beyond repair: in every aspect of nature, there are opportunities to improve the quality of our natural habitats.

Students get this; colleges and universities commonly include messages on sustainability and the environment in their graduation pledges. Grade school children understand the need for recycling and water conservation. Every generation younger than the Baby Boomers sees the need to change consumer habits. However, they still need to be shown how and where they can really make a difference.

The best position from which to take action is at the forefront of this predicament, where sustainability has become a key focus. To those in the know, one of the most relevant professions that exists to resolve these issues is that of the facility manager.

The responsibility for stewardship and sustainability belongs first and foremost to those who manage a facility and its grounds. Facility managers and their staff have the most impact on the environment through the control of operations, maintenance and resources within their facilities. Also, facility management departments are more likely to work directly with government regulators charged with assuring compliance with environmental laws designed to protect the environment.

A person's contributions to society are judged not just on the basis of financial gain or products and services provided, but also on the care he or she shows for people and the environment. Facility managers are trained to take steps that protect the environment and people. That is why facility management should be a prime consideration for those entering the workforce or looking for an exciting career — those ready and willing to make a difference.

Getting their attention is the first major step. Knowledge transfer is a two-way street. Information can be imparted in volumes, but there must be a willing receptor who will listen, understand and take the message to heart. Creating interest and excitement concerning facility management, then, must entail a plan that will entice and captivate a select audience over time. There are, of course, compelling arguments that can be made.

# Minimize negative impacts

Fossil fuels and greenhouse gas emissions are necessary evils of the built environment today. Industry is reliant on coal and oil to provide energy. Facility managers are tasked with providing sufficient electricity so that employees can

do their jobs. This means climate control, lighting and power at receptacles (called plug load).

Facility managers have the ability and the responsibility to monitor and control power so that just enough electricity is provided to allow successful organizations to run without waste. In the U.S., 29 states have adopted policies to incentivize renewable energy, called renewable portfolio standards. These require state utilities to purchase a certain amount of renewable energy.

Scientists know that fossil fuels harm the environment, exacerbate climate change and cause respiratory ailments in humans. In the context of FM, energy conservation through analysis, evaluation and the implementation of proper procedures exerts a mitigating influence on the use of fossil fuels and the emissions they create.

# Save water

Water is still, for the most part, taken for granted by consumers. Yet water is a global issue and people around the world are being affected by water shortages. The United States is in the midst of one of its most sustained periods of increasing drought on record. According to the Government Accountability Office, it is being projected that a total of 40 U.S. states¹ will be dealing with a shortage of water by the end of the next decade.

In Asia, drought continues to be focused in the eastern part of the continent. Very dry conditions exist from Russia, through Mongolia and China, and into northern India and Southeast Asia. In Taiwan, water restrictions are in place and two northern cities are experiencing a stop to their water supply service two days a week.

The drought in South Africa is being called the worst since 1992 and Botswana may see a total crop failure on account of the drought. In South America, drought continues to grip Brazil and has intensified over the southern part of the continent. Chile is experiencing an above-average wildfire season with fires through the end of March burning roughly 90,000 hectares. In Australia, drought conditions remained relatively constant, impacting the north and interior of the continent. In northern Tanzania, taps in Arusha City have run dry.

Facility managers can save water through easy, common-sense measures. They can control irrigation and over-watering and eliminate wasteful runoff. They can ensure that proper plumbing fixtures are in place to assist in minimizing water use within the facility. Through the use of reclaimed water, they can help to conserve potable water. Facility managers can make sure that there always will be enough water for drinking and cleaning.



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# Manage resources

Everything needed to run facilities is purchased by facility managers. They will know a product's impact on the environment prior to its purchase, how it will be used and affect those in the facility and what happens to it when it leaves.

Facility managers can influence this life cycle of products and materials to ensure that natural resources are conserved and that landfill use is diminished. They aim at zero waste, the recycling of all materials back into nature or the marketplace in a manner that protects human health and the environment. The U.S. has 3,091 active landfills and more than 10,000 old municipal landfills, according to the Environmental Protection Agency. Internationally, the situation is just as dire. As product manufacturing and consumption increases, driven by population growth and consumerism, landfills continue to expand. Through proper resource management, facility managers can help reduce this number.

# **Protect employees**

A healthful indoor environment is critical to the health, well-being and productivity of people in the building. Facility managers are in charging of providing optimal indoor environmental quality through the delivery of the proper air balance, air flow and air quality. They are responsible for eliminating indoor air particulates as well as hazardous volatile organic compounds within the facility, minimizing any possibility of respiratory problems. They implement green cleaning processes and supplies to minimize health hazards.

Through workplace management, facility managers can provide appropriate lighting so that employees don't get headaches and have a connection with the outside world through daylighting and exterior views. They can minimize noise to allow privacy and avoid work interruptions. They have the knowledge to perform ergonomic evaluations and safety training to eliminate workplace injury. Their work revolves around customer satisfaction, which leads to higher morale and more productivity.

# **Utilize technology**

From 3-D representations of the facility, to measuring, monitoring and verification software, facility managers have a variety of technology with which to play. They can manage temperature, air flow, lighting and energy from both desktop computers and mobile devices. They can monitor water and energy use, plan moves and evaluate space utilization, inventory furniture and fixtures, equipment and replacement parts.

They can devise floorplans to follow plumbing and air conditioning ducting and track data and phone wire runs from punch-down to faceplate. Technology is fast becoming a necessary tool for facility managers and new developments and improvements hit the market quickly and often. One area in which those new to the work force have an edge is in technology. They must be made aware that the tools/toys are there to use and improve; piquing their interest in a realm of familiarity.

# Plan the future

Facility managers are trained to think strategically; to look toward the future and devise ways to meet possible challenges that could face facility operations. Intuitive thinking becomes a part of the facility management mindset and as that attribute develops, facility managers gain the luxury and the resources to effectively plan for long-term actions.

Through strategic planning and incorporating shortterm tactical initiatives into a holistic approach to organizational missions, facility managers are continually looking forward. IFMA's Trend Reports, the Global Job Task Analysis, new Knowledge Library and the research and education provided by the IFMA Foundation are just a few of the resources that can assist with this process. Facility managers ensure that they are not victims of challenging new developments, but are prepared to turn them into opportunities for improvement.

## Discover

There are new trends that can deliver improved processes and performance, such as biomimicry, where people look to nature for solutions to problems like water filtration, structural integrity and aerodynamics. Developments have helped facility managers to better understand the benefits and applications of natural power that has been used in nature for millennia. Some examples include water flow to create hydro-electric energy sources, channeling the sun for solar energy, harnessing the wind for power and tapping into the Earth for geothermal energy.

Nature has a lot of lessons to offer in dealing with threats. Facility managers have the ways and the means to sustain, rather than deplete, our natural resources.

# Make a difference

Facility management is a proactive process focused on enhancing the quality of life and sustaining our natural resources through strategically managing effective workplaces. Facility management activities are designed to minimize the impact of facilities on the environment and enable the optimal health, safety and productivity of employees.

Through a unified and consensus-driven approach, workable solutions can be implemented globally. As people look to the future to determine their career paths, FM is a profession that deserves strong consideration.

#### What in the world is next?

The current corps of facility managers has set the stage. They understand the challenges facing the profession and have pioneered some of the initiatives needed to start making a difference. The right message can galvanize those new to the profession. They will be able to reap the benefits of prior actions and undertake the exciting role of difference-maker in the built environment.

In today's media-intensive world, the market is flush with superhero content. Whether through movies, television, comic books or pulp fiction, heroes abound in the public consciousness.

Facility managers could be considered heroes in their own right. They have the ways and the means to mitigate resource misuse and abuse by fighting to eliminate crimes against nature. Collectively, the impact of their future actions could be astounding, dwarfing comic-book and bigscreen heroics with real-life successes in helping to save the world. This is a message every FM can impart.

By hook or by crook, the profession needs to acquire new talent. Creating such parallels may just be the key. FMJ

#### **RESOURCES**

1. www.usatoday.com/story/news/nation/2015/04/18/californiadrought-nationwide/25999193/



Bill Conley, IFMA Fellow, CFM, SFP, FMP, LEED AP, is facility manager at Yamaha Motor Corp. in Cypress, California, USA. Prior to that, he served as owner and chief sustainability officer of CFM2, a facility management and sustainability consulting company. Conley has more than 40

years of experience in the facility management profession and has been a proponent of sustainable operations for more than 20 years.

Conley has served on the IFMA board of directors, is a recipient of IFMA's distinguished member of the year award and has twice received the association's distinguished author award. He has been a regular contributor to FMJ for 20 years and has authored more than 50 FMJ articles.

#### What's Your Next Move?

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#### **Superior Security**



Encased within the structural steel framework, wire and cabling are tamper resistant and guarded against electromagnetic interference. The Cordeck Solution is UL Listed, adhering to U.S. and Canadian safety standards.

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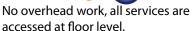
#### Competitive Cost \$\$\$



Cordeck's In-Floor Solutions provide the important benefit of low life cycle cost.

Expenses required to install a system or modify the workplace environment are minimized. Cables are installed within the cells of the metal deck eliminating the added costs of plenum rated cables required by some systems. Economically, Cordeck is the best choice for your wire management needs.

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# **MANAGED SERVICES:**

# Making You Look Like a Hero

The job of a facility manager is vast and seemingly endless. Business environments must be tended to at all times. Among other tasks, this requires that AV and IT systems be constantly maintained, repaired, altered or updated. In many businesses, technology resources are limited, and everyone is looking to you for the answer.

For many facility managers there is a solution that provides immediate benefits: managed services. But what does managed services actually mean, and how can you tell if an integration

BY DESTINY HEIMBECKER company is not just using the word as a marketing tool?

Managed services allow businesses to offload technology operations to a service provider. The managed services provider assumes an ongoing responsibility for 24-hour monitoring, managing and/or problem resolution for the technology systems within the business. There are many different types of managed services to choose from, but they all end in the same results — a better bottom line and increased productivity.







#### What does a managed services provider do?

A managed services provider will monitor your systems (through managed service software) 24/7 for any problems or potential issues and alert you to them in a timely fashion. A managed services provider will also fix most problems such as software glitches and snags. Nearly any foreseeable technology problem that may cause substantial productivity and/or financial loss for your organization can be anticipated and addressed by a managed services provider. This helps to keep system infrastructure running smoothly with little to no downtime.

#### Fully managed on-site staffing

Hiring and training technology staff can be very expensive and temporary employees do not always live up to expectations. On-site managed services allow for supplementing or even outsourcing technology teams, providing facility managers with all of the benefits of highly trained and dedicated resources while containing costs and reducing management headaches.

#### Remote managed services

Another option is to partner with a technology integration company that has invested in developing the capabilities and processes to monitor your systems remotely. Remote managed services can be applied to almost any networkaccessible location in the world.

Select integration firms have the ability to support their clients through real-time monitoring, diagnostics, asset management and scheduled testing. Highly trained technicians oversee every network-connected device in order to minimize downtime and correct problems before they affect your operations.

A core management tool at the client site notifies the integrator of any equipment issues. With this error detection and notification, they can be your eyes and ears, reacting to issues through remote diagnostics and repair before they become a concern for you.

Managed services providers should offer a wide range of reports for you to review. These reports assist their technicians by maintaining a history of your systems. The reports will also help you visualize and understand the performance of devices connected to your system. Some firms also offer software and firmware management and reporting so that your system is always running at peak performance.

#### Help desk and live support

An additional method of managed services is probably the most common. In this scenario, clients have access to the AV integrator's expertise over the phone for help troubleshooting their systems, support in setting up videoconferencing, assistance in initiating meetings and presentations, and more. Increasingly, these help desks are augmented with videoconferencing capabilities, which enables your staff to receive assistance and diagnostics face-to-face with a live person.

#### Benefits of managed services

Managed services maximize uptime of technology resources and ensure that they are available when you need them. This increases efficiency of personnel, reducing expenses and overhead. It also increases productivity by eliminating the frustration that accompanies malfunctioning systems and the embarrassment of personnel who are not fully trained in system operation. You will reduce wasteful spending and budget more efficiently by identifying technology utilization and purchasing only what is needed.

Managed services convert fixed AV and IT costs into variable costs, allowing you to budget effectively. In other words, you only pay for what you use when you need it, which leads to low capital outlay and predictable monthly costs. In addition, outsourcing your AV and IT needs reduces your overall labor costs. In addition, managed services providers monitor your equipment for updates and patches, so that your system is always running at peak performance, which means a longer lifespan, more money for your bottom line, and a future-proof system.

Organizations that have their technology monitored and utilize direct access to technicians can have problems solved and equipment back up and running quickly with very little downtime, which increases your speed and effectiveness.

#### Capacity planning information

Managed services clients are able to realize an added benefit that they may not even have considered: Because managed services providers' tools are constantly monitoring the performance of the client's system, all of that information is captured and retained as historical data.

Clients have access to this data and can use it to analyze trends in performance associated with a specific device or database and to make educated, informed decisions about future technology needs as a result.

#### Managed services versus break-fix mentality

Managed services also represent a philosophical change in the way in which businesses deal with technology. Looking back to previous ages of technology, maintenance only came in the form of break-fix (waiting until the projector, codec or other critical system devices failed and then scrambling to fix them).

A break-fix maintenance service fixes problems as they crop up. This means that something needs to go wrong before you receive any service, resulting in an inevitable reduction in system performance while you wait for the problem to be fixed.

Many companies continue to take the route of breakfix in order to cut costs and minimize budget. The problem is that you never know when something will break and what financial toll it will take on your company. This inherent risk leads to an unstable and truly unpredictable budget. Instead of following this old-school tradition, a business operating with a managed services provider focuses on the prevention of these issues before they disrupt employees, management and/or clients.



#### Managed services maximize uptime of technology resources.

Today, no business can really afford the risk and uncertainty of relying on a "break-fix maintenance service" because business is too dependent on having a reliable technology system. Furthermore, having separate suppliers responsible for different parts of the system puts you in the difficult position of trying to decide who should be delivering the service you require. You simply do not have time for this.

#### Do managed services cost more than traditional break-fix services?

Surprisingly, most managed services cost less than traditional break-fix services, especially when the true cost of downtime is factored in. Remote monitoring, remote maintenance and the prevention of major issues allow managed services providers to be more efficient than similar break-fix companies that must constantly visit customer sites for reactive maintenance and emergency resolutions. Therefore, managed services companies can offer better service without charging more.

#### **Breaking down the benefits**

In short, the reason to acquire a managed services agreement with your technology provider can be summarized in six simple benefits:

- Increased operational efficiency
- Reduced operating costs
- Cost-effective access to enterprise-level support
- Minimized downtime
- Allows the focus to be on running the business, and not the technology
- Peace of mind from knowing that the network is monitored 24/7

#### Working with a managed services provider

Keeping a strong line of communications with your managed services provider is the key to success. Ask questions early and often, such as:

- What kind of infrastructure, applications and other technologies do they typically support?
- What kind of tools do they use internally for things like helpdesk and other functions?
- Are their written agreements easy to read?
- How do they respond to different types of customer requests?

In addition to asking questions, make sure that you communicate on a regular basis. Keep them in the loop as appropriate about strategic plans, changes and other information that could impact the company's technology needs. Doing so enables your provider to anticipate and adapt rather than constantly play catch-up.

Regular communication will minimize potential problems with your outside technology provider, but keep in mind that sometimes things will not go perfectly as planned. If issues do arise, address them immediately with the provider. Raising issues quickly will often lead to a positive resolution.

Put in simple terms, one of the biggest benefits of managed services is discovering and fixing problems before they can negatively affect your business.

With so many different types of managed services offerings, the managed services label can be a confusing one. When considering managed services, think first about your requirements. These could include:

- How satisfied you are with the level and quality of support that you have today?
- Where are the gaps, pain points and inefficiencies in the technology management?
- How do downtime, outages and other problems impact your business?

With these requirements top of mind, evaluate managed services solutions that map to your technology, business and budget requirements and provide a flexible, proactive approach that can adapt with you as your needs evolve.

Every facility manager has limited budget and bandwidth. Managed services allow you to focus on your core job, which improves your efficiency and productivity, and there is nothing that can replace the time and focus required to handle technology issues. The benefits are vast, and at the end of the day, managed services can help you look like the hero that you are. FMJ



Destiny Heimbecker is the marketing communications coordinator for Vistacom Inc. Over the past 13 years she has provided the company with a comprehensive blend of product marketing, business writing and design expertise.

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#### **BEHIND THE BRAND**

INSIGHT ON IFMA'S CORPORATE SUSTAINING PARTNERS



Behind every successful FM are a host of product and service providers that offer solutions to make the hectic task of ensuring seamless facility operations a little smoother. This showcase goes behind the brand to reveal the culture that makes these powerhouse businesses the best in class.

#### CONNECTRAC

Connect without core drilling

COMPANY NAME Connectrac

EXPERTISE Electrical/wire management

CSP LEVEL Standard CSP SINCE 2014

WERSITE WWW.connectrac.com

FMJ: WHAT ADVANTAGES DO WIREWAYS OFFER OVER CORE DRILLING/TRENCHING?

**CONNECTRAC:** For the last decade, Connectrac has dedicated itself to providing customers with cable management that not only gives a subtle and elegant look to a workspace, but is also easy to install. With core drilling or trenching come the hassle of disruptive installations, intrusions on employees and neighboring tenants, and additional costs. Connectrac gives you the look and feel you desire in your workspace at an affordable price.

Recently, it was shown through a study by RSMeans that using Connectrac wireways can save you up to 50 percent or more on your project than using core drilling or trenching. Additionally, Connectrac's non-intrusive wireways are also easy to learn and easy to install. Within a couple of hours, our wireways can be laid down and ready for use, all without disrupting the workflow of your office or having to schedule installation at inconvenient hours. Connectivity is simplified through Connectrac, the standard in cable management.

FMJ: HOW DO CONNECTRAC'S CABLE MANAGEMENT SOLUTIONS ADAPT TO FIT THE NEEDS OF THE CORPORATE, EDUCATION AND GOVERNMENT SECTORS?

**CONNECTRAC:** Within every work sector, change is constant. The increase in technology and Internet access requires any arena, whether it is corporate, educational or government, to upgrade their assets to keep up with the pace of the world. Increases in technological access must be provided with an increase in connectivity and cable management that also can be adapted at a moment's notice.

Connectrac allows any workspace to evolve elegantly and seamlessly. Providing a variety of options and finishes, Connectrac can give you a near-invisible, no-bump aesthetic with our in-carpet wireway while maintaining the ability to be moved or adjusted. Need to change the location of your cable pathway or add more cabling? Perfect! With no drilling required, Connectrac wireways can simply be moved to where you desire, and they have the accessibility to add any cabling you need. With Connectrac, change never has been this simple.



COMPANY NAME Caterpillar Inc.

EXPERTISE Building/maintenance supplies

CSP LEVEL Standard CSP SINCE 2014

WEBSITE www.cat.com/rentalpower

FMJ: HOW DOES CAT COMBINE EQUIPMENT, TECHNOLOGY AND SERVICES TO BENEFIT FACILITY MANAGERS?

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FMJ: WHAT ARE SOME THINGS FMS SHOULD KEEP IN MIND WHEN SELECTING POWER EQUIPMENT?

**CAT:** "I need a complete solution, to our exact specifications. I need a rental power company that understands the urgency of my situation. I need reliable rental power equipment that's in excellent working condition. I want rental power from a dealer who has my equipment ready to go."

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With a wide selection of rental power solutions, your CAT dealer has the resources you need in stock and ready to deliver. They carry a deep inventory of high-quality rental products to power your operations forward. CAT Rental Power products can help you prevent a crisis, power maintenance machinery, keep a standby power supply or produce energy for seasonal peak load, cool buildings or water and supply compressed air.



IFMA's Corporate Sustaining Partners (CSPs) are an elite group of companies that have made a powerful statement in support of facility management by partnering with IFMA. It goes beyond just selling a product or service

- these companies believe in the FM profession and believe in supporting its future.

#### These outstanding providers can enable you to;

- · Easily find the top FM products and providers
- Make informed buying decisions
- Take part in increasing the role of your profession
- Help your association offer exceptional services, products, resources and opportunities





Contact April Tone to learn more about how you can benefit from IFMA's corporate programs.

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#### **AUDIO/VISUAL**

AVI-SPL | www.aviinc.com

#### **BUILDING MAINTENANCE/SUPPLIES**

Caterpillar | www.cat.com

The Home Depot | www.homedepot.com

JLG Industries Inc. | www.jlg.com

Legrand | www.legrand.us

Lowe's Companies Inc. | www.lowes.com

#### **BUSINESS SERVICES**

Galfar Al Misnad Engineering and Contracting WLL |

www.galfarqatar.com.qa

SourceAmerica | www.sourceamerica.org

#### **CARPET/FLOORING/TEXTILES**

INVISTA/ANTRON® Carpet Fiber | www.antron.net

Mannington Commercial | www.mannington.com

MilliCare Commercial Carpet Care | www.millicare.com

Milliken Contract | www.millikencarpet.com

Patcraft | www.patcraft.com

Philadelphia Commercial | www.phillyqueencommercial.com

The Mohawk Group | www.themohawkgroup.com

#### **CEILINGS/CEILING CARE**

Armstrong World Industries | www.armstrong.com

#### **DISASTER RECOVERY/EMERGENCY RESPONSE**

BELFOR USA Group Inc. | www.belforusa.com

#### **ELECTRICAL/WIRE MANAGEMENT**

Connectrac | www.connectrac.com

FreeAxez LLC | www.freeaxez.com

Legrand | www.legrand.com

NETA, InterNational Electrical Testing Association | www.netaworld.org

#### **ENERGY SOLUTIONS/MANAGEMENT**

GRUNDFOS | us.grundfos.com

Waldron Engineering Construction Inc. | www.waldron.com

#### FLOORING INSTALLATION/MAINTENANCE

Corporate Care | www.corporatecare.com

Forbo | www.forbo.com

Tarkett | www.tarkettna.com

#### FM CONSULTANTS/SERVICES/PROVIDERS

ABM | www.abm.com

ALPHA Facilities Solutions LLC | www.alphafacilities.com

Al Shirawi Facilities Management | www.alshirawifm.com

ARAMARK | www.aramarkfacilities.com

CH2M Facility Services | www.ch2m.com

DTZ, a UGL Company | www.dtz-ugl.com

EMCOR | www.EMCORGroup.com

Engineering Maintenance Company, EMCO-Qatar |

www.emcoqatar.net

Eurest Services | www.eurestservices.us

Facility Engineering Associates, PC | www.feapc.com

FBG Service Corp. | www.fbgservices.com

HD Supply Facilities Maintenance | www.hdsupply.com

ISS Facility Services | www.us.issworld.com

JLL | www.us.jll.com

Johnson Controls Inc. | www.johnsoncontrols.com

Khidmah | www.khidmah.com

PCN Technology, Inc. | www.pcntechnology.com

Qatar Foundation | www.qf.com.qa

RSMeans | www.rsmeans.com

S.A: Temco Services Industry, Inc. | www.temcoservices.com

SG Services LDA | www.sgs.com

Sodexo | www.sodexousa.com

TDGI - Tecnologia de Gestao de Imoveis | www.tdgiworld.com/en/

Terranum Administracion | www.terranum.com

Vertiv | veritivcorp.com

#### **FM SOFTWARE**

ARCHIBUS Inc. | www.archibus.com

FM:Systems Inc. | www.fmsystems.com

iOffice. | www.iofficecorp.com

Planon | www.planonsoftware.com

Trimble | www.trimble.com

#### **FURNITURE**

CORT Furniture Rental | www.cort.com

Davies Office Refurbishing | www.daviesoffice.com

Herman Miller Inc. | www.hermanmiller.com

Keilhauer | www.keilhauer.com

KI | www.ki.com

Steelcase Inc. | www.steelcase.com

Versteel | www.versteel.com

#### HVAC/INDOOR ENVIRONMENTAL QUALITY SOLUTIONS

Halton Group Americas | www.halton.com

ISCO Industries, Inc. | www.isco-pipe.com

#### **JANITORIAL SERVICES/CLEANING PRODUCTS**

Exc el Dryer | www.exceldryer.com

GCA Services Group Inc. | www.gcaservices.com

PRIDE Industries | www.prideindustries.com

Redlee/SCS Inc. | www.redleescs.com

ServiceMaster Clean I www.servicemasterclean.com

#### LANDSCAPE/MAINTENANCE/PLANTS /SERVICES/SUPPLIES

Ambius | www.ambius.com

U.S. Lawns | www.uslawns.com

#### **OFFICE SUPPLIES/PRINTING**

Staples | www.staples.com

#### **PEST CONTROL**

Rentokil | www.rentokil.com

#### **RESTORATION/MAINTENANCE**

BehrPro: BEHR & KILZ Paints & Primers | www.behrpro.com

#### **ROOFING**

Astec Re-Ply Roofing Systems | www.icc-astec.com Sika Sarnafil Inc. | www.sikacorp.com

#### **SECURITY**

AlliedBarton Security Services | www.alliedbarton.com

Allegion PLC Security Technologies |

www.securitytechnologies.ingersollrand.com

American Security Force | www.AmericanSecurityForce.com Securitas Security Services USA | www.securitasinc.com

#### SIGNAGE

APCO Sign Systems | www.apcosigns.com

#### STORAGE/SHELVING/FILING

REB Storage Sytems International | www.rebsteel.com

#### **TECHNOLOGY SOFTWARE TOOLS**

ARC Document Solutions | www.e-arc.com FieldAware | www.fieldaware.com

#### **WATER & FIRE RESTORATION**

Coit Cleaning & Restoration Services | www.coit.com

#### **WATER TECHNOLOGY**

RLE Technologies | www.rletech.com



BY ERICA EATON

The greatest costs that businesses incur are people costs — salary and benefits for their employees. In fact, while typical annual energy costs average about US\$3 per square foot, real estate costs are on the order of US\$30 per square foot and people costs are US\$300 per square foot. As such, companies invest millions of dollars on amenities directed at employee satisfaction, retention and productivity. However, one investment area that is often untapped, despite being proven to drive increased employee value, is thermal comfort.

Occupant comfort is a cornerstone of facility management, but also one that is notoriously hard to measure. And, as we move toward more modern, dynamic workspaces, it will become even harder to manage different preferences and schedules of people in work environments.

Although many buildings are now equipped with HVAC zones to create distinct areas of temperature, some of which even have the ability for occupants to moderate

temperature +/-2 degrees from an established acceptable temperature range (deadband), according to a survey by Software Advice, up to 74 percent of occupants are still uncomfortable with their office temperature. This is because while these technologies can better accommodate varied occupant preferences in thermal comfort, they generally do not effectively mitigate occupant complaints and can cause disagreement among occupants (commonly known as thermostat wars).

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Providing occupants with information, such as HVAC zones, can help mitigate issues regarding conflicting temperature preferences.

Technologies allowing personalized temperature control will become more mainstream as the benefits of occupant comfort become a greater influence in corporate investment decisions. However, in order to scale up, these solutions must be easy and cost effective to deploy and offer differentiated value to both occupants and building operators.

Advancements in software and the proliferation of mobile devices and human-computer interaction can deliver on these requirements by turning the subjective nature of comfort into actionable data. By leveraging Web and mobile apps to solicit feedback directly from occupants on their comfort and utilizing that data to communicate directly with existing building systems, facilities can be optimized for both comfort and energy. Requiring little to no additional hardware, these technologies can be readily deployed across buildings both new and old to effectively address the high-value issue of occupant comfort.

The following are some of the critical capabilities to consider when assessing solutions for improving occupant/tenant comfort in the office.

#### Design for user experience

Historically, not much information has been shared with occupants regarding their space, and even less in regard to factors impacting their thermal comfort. Typically, at most, occupants can find a wall-mounted thermostat that allows narrow adjustments to a set range of prescribed temperatures.

Instead, an occupant-facing application should provide useful information to users about their facility, its capabilities and how temperature is regulated throughout spaces. For instance, depicting a building's HVAC zones allows occupants to understand with whom they share

temperature and how their preferences vary. This transparency is the first step toward ending thermostat wars and allowing people to peacefully share temperature. In fact, for buildings in which occupants have real-time access to how their personal preferences compare to the preferences of those around them, it has been shown that there is 95 percent agreement between occupants on temperature within zones.\*

Additional information, such as potential limitations of building systems (whether they are short- or long-term), can also be shared with occupants. Sometimes simply sharing that a piece of equipment is out of order or that a zone is already at maximum cooling can help occupants understand what may be impacting their thermal comfort. This can potentially preempt the creation of unnecessary work orders.

#### Immediate response

With any Web or mobile application, engagement is key to driving sustained value. If no one uses the app, then how can the FM team collect data and take action? User trust is paramount.

Consumer-facing apps always offer a very tangible benefit to the user, and apps for workplace temperature control are no exception. It's not enough for requests to be catalogued and put into a list for later action by the facility manager, or even for a work order to be automatically generated. When using systems like these, it's important to understand that occupants have very little incentive to engage. Therefore, the return on your investment will be low.

In order to build trust and engagement, the software solution must integrate and operate with existing building systems. The commands from the occupant interface must seamlessly pass through to the building automation

system to elicit the desired change in temperature at the location selected by occupants. In some cases, this function has resulted in 83 percent of eligible occupants reporting increases in satisfaction with workplace comfort, as well as a 90 percent drop in hot and cold calls fielded by facility personnel.\*

#### Intelligent use of data

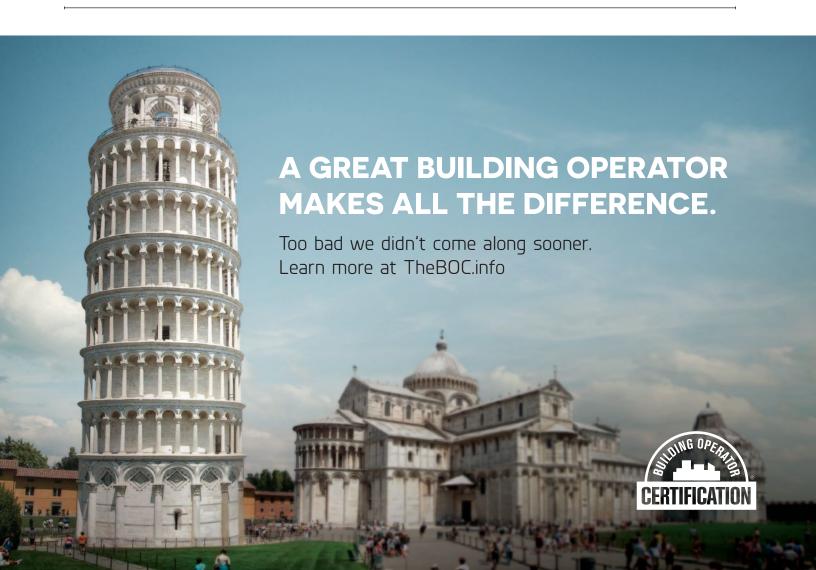
While the immediate response of a software application is incredibly important, aggregating the usage data to better manage the facility is equally critical. The more building operators know about the preferences of occupants, the more they can tune ongoing operations. For example, if occupants contacted the FM team several days in a row indicating that a space was too warm, the facility manager would likely make adjustments to the setpoints or schedule to reflect the requests.

When weighing thermal comfort software solutions, favor should be given to those that follow the same logic across all occupants and zones, and do so automatically. It should only take one or two requests for the software to learn and implement the preferred temperature setpoints at each hour of the day within each zone of the building.

While occupants can benefit from the personalized temperatures this data allows, facility and sustainability managers leverage this data to deliver significant energy savings. Through connection with the building automation system, the software should modify setpoints based on occupant preference first and energy second. This means that when occupants are not present in parts of the building or are not indicating a specific temperature preference, the HVAC zone should be operating at much wider setpoints to minimize the amount of required conditioning and to maximize energy savings. As soon as an occupant makes a request, the software should narrow the setpoints again to meet the preferred temperature. When correctly implemented, this practice can save 15-25 percent of HVAC energy.<sup>†</sup>

#### **Continuous support**

Buildings are living, breathing objects, so undoubtedly there will be circumstances that fall outside of standard operations. In these situations it's paramount that both facility managers and occupants have a reliable team to fall back to.



# Advancements in software can turn the subjective nature of comfort into actionable data.



By aggregating data submitted by occupants, a software solution should modify the ongoing temperature setpoints (depicted by light grey band) to satisfy occupant preference first, and energy second.

Any software solution that gets implemented should have a readily available customer service center that can help troubleshoot any and all issues that arise. This is especially important when occupants, who despite having more information at their fingertips, likely don't have in-depth knowledge of building systems and the potential operational issues at hand.

In addition to troubleshooting issues, the customer support team can provide valuable information to facilities teams that they otherwise might not have known. For instance, a customer service team might notice a high number of occupant requests within a specific zone, and upon analyzing building data, notify the facility manager of a stuck damper or other operational issue.

Investments in increasing employee satisfaction with workplace thermal comfort have the ability to drive a significant return by increasing employee productivity, retention and engagement. The deployment of advanced software and mobile app solutions that solicit occupant feedback on comfort and utilize this data in building management practices can mitigate traditionally complex

issues regarding personalized comfort.

As these technologies continue to emerge and gain traction, it should be considered best practice to provide an elegantly designed user experience, an immediate response to occupants, intelligent use of data and continuous support. FMJ

#### REFERENCE

†Software Advice. "How to Improve Employee Morale and Productivity Through Smart Climate Control." July 2015. www. softwareadvice.com/construction/industryview/climatecontrol/?utm\_medium=email\_amp&utm\_source=indv\_email&utm\_ campaign=rsrch&utm\_content=climate\_control\_const. \*Based on data collected from buildings where Comfy is installed.



**Erica Eaton** is director of business development at Building Robotics (BR) whose flagship product, Comfy, is the world's first intelligent software for personalized temperature in the workplace. Helping drive and support client relationships and channel partnerships, she is

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#### **Credentials**









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#### PROFESSIONAL DEVELOPMENT

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#### BE A PART OF THE GLOBAL VOICE

IFMA will conduct an update to its Global Job Task Analysis starting in the fall of 2015.

Be a part of the global voice of FM!

IFMA is excited to announce the fall launch of its facility management Global Job Task Analysis (GJTA). Your voice is essential to making this project a success.

Since this effort only occurs every few years, some may ask what exactly a job task analysis entails. This study identifies the critical tasks and work activities of the facility management professional, the context in which those tasks and activities are carried out, and the most crucial knowledge and skills required to perform the job successfully.

When completed, the GJTA process will provide a basis for developing exam specifications and curricula that accurately reflect the FM scope of practice, allowing for the development of fair, accurate and realistic assessments of candidates' readiness to perform work. In essence, the GJTA will be a mechanism by which IFMA can ensure the validity for exam development and curriculum design.

In addition, reports on trending topics, unique needs by region and facility type and projected changes to the industry are derived from the study, all of which are extremely important to the future of the FM industry. Guided by the IFMA International Credentials Commission (ICC), the GJTA is performed in phases and its success is extremely dependent on those who are willing and able to volunteer to assist with some portion of the year-long project. There will be an array of opportunities for you to engage with this initiative, including focus groups, interviews, surveys, a task force team, a pilot survey review group and a test specification committee.

#### How you can get involved

You should have received (or will soon be receiving) an email containing a link to a five- to seven-minute questionnaire that will allow you to volunteer to be one of the global voices in this study. The opportunities include:

- Interviewing practicing FMs local to you (September/October 2015)
- Participating as an interviewee (September/October 2015)
- Participating in a focus group (September/October 2015)
- Participate in a task force team to define the domains that represent the principal areas of job responsibility and knowledge needed to perform the professional responsibilities of a facility manager
- Participate by being a regional survey champion
- Participate by taking the final survey

The success of this project is dependent on worldwide participation in all of the various activities outlined above. We understand that your time is extremely valuable; however, we hope that you will recognize the impact this will have not only on your career, but also on the careers of future generations who are involved in some or all aspects of facility management. FMJ



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#### BY MARY BETH ORMISTON

he winter of 2014-2015 was one of the snowiest in decades for Boston, Massachusetts, USA. More than 200 roofs collapsed due to the weight of the heavy, wet snow. A large industrial complex in Hyde Park was hit especially hard as a roof collapse blew out a cinderblock wall and crushed a power line and a natural gas line. However, with some attention to maintenance and good emergency response plans, the number of roof collapses in the region could have been dramatically lowered.

Facility managers can prepare both their teams and their facilities for a multitude of weather-related crises before, during and after emergency events. With effective emergency response plans tailored to a variety of employees and facilities, clear communications and the establishment of an open relationship with authorities, FMs can successfully manage a large variety of weather-related incidents.

### Provide all-inclusive workplace emergency response plans.

The best way to prepare employees for weather-related emergencies is to ensure that they are equipped with complete emergency response plans for evacuation or shelter in place. These plans should incorporate responses for fire, flood, hurricane, tornado, monsoon, snow, ice and general loss of power, if they apply.

Good emergency response plans take into consideration every possible weather situation, and include contingency plans based upon differing sets of needs. Is there a backup facility where the team can go to regroup, if necessary? Be sure to account for potentially sensitive materials, such as employee records, to ensure that they are secured and that back-ups are available in an alternate location.

### Tailor plans to employee groups/types.

While severe weather impacts all employees, there should be unique plans in place for employees who are out in the field, in the health care industry or working remotely. Ensure that there is a clear plan and line of



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communication for each unique group/audience within your organization in case of an emergency.

#### Make sure communication is available and reliable.

Know how employees are going to communicate in an emergency situation (and make sure they know as well). Crisis plans should include a way for employees to contact each other as well as a way for employees to contact emergency relief teams in the event of a power outage.

In a safe place, keep an updated list of all relevant local emergency contacts — from emergency relief authorities to power and utility companies. A quick and efficient way to do this is via a mobile safety platform, so this information can be updated in real time, and push notifications can be sent to all affected parties.

If the facility uses a crisis management platform, periodically check to be sure that the correct point of contact for the emergency relief authorities is included. When a crisis hits, the last thing anyone should be doing is trying to figure out who is the right person to call.

#### Coordinate with authorities.

It is important to have open lines of communication with local emergency services, not just during an emergency, but beforehand. Confirm evacuation routes and points of contact with them well before any adverse weather conditions are present. In a crisis, it is up to the authorities to keep the population safe and this depends largely on cooperation with relief agencies. When bad weather is

forecast, remain in radio contact with the authorities and adhere to broadcast evacuation plans. If anyone ends up stuck in the building, advise them not to leave until word is received from the proper authorities that it is safe to do so, so that there is no risk of putting anyone in danger or interfering with other evacuations.

#### Stock up and focus on safety.

While it is important to secure a building, the safety of the occupants should be the number one priority. Emergency kits can be used to help people comfortably shelter in place. For a large building, 72 hours of supplies may not be feasible; however, have as many emergency supplies — such as blankets, flashlights, bottled water, batteries and radios — as possible.

It can be especially handy to have solar- or dynamo-powered radios in emergency situations. Additionally, inspect the HVAC system to ensure that it can effectively filter out dangerous airborne impurities that get thrown around during a hurricane, cyclone or other major weather event. If possible, have a back-up generator to run essential electricity during power outages.

#### Offer post-weather-event tips.

A critical part of an emergency response plan is coordinating the recovery phase as well, so it is important to work out what steps will be taken once the immediate danger has passed. Weather event issues such as maintaining a safe environment for people and restoring normal operations as quickly as possible are much more easily handled when a clear plan is in place.

#### BUILDING PREPARATION FOR SEASONAL EXTREMES

It is also imperative that FMs effectively secure their physical buildings for a weather emergency. Each season comes with its own distinct threats. These weather events can range from major (e.g., tsunamis and tornadoes) to more minor events like heat waves.

#### WINTER WEATHER

Whether it is a large accumulation of snow, flurries, ice or even bitter cold, winter weather poses its own unique set of risks, and FMs must be aware of them in order to ensure the safety of their occupants and the prevent damage to their buildings and parking lots. The extreme temperatures combined with strong winds and often chemical methods of ice prevention can wreak havoc on a facility.

With winter weather, an ounce of prevention really is worth a pound of cure. FMs have a number of preventative measures in their arsenals that can prevent damage to the exterior of their buildings and avoid injury to those using the facility.

Before a storm strikes, generally in the summer or early in the fall, FMs should identify potential areas of concern, such as drains and downspouts that can get clogged with debris, and become





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proactive in creating planned maintenance tasks to keep the structure free from future damage. An online emergency crisis plan platform can remind users of these planned maintenance efforts. Careful research can indicate which chemicals are less likely to destroy concrete sidewalks and parking lots and are less toxic to animals and pets.

Prior to winter it is also a good idea to check on other snow removal equipment such as shovels, so that if more gear needs to be purchased it can be added to the facility's capital expenditures budget.

There should be a clear action plan for snow removal, so that parked cars do not prevent snowplows from doing their jobs when the time comes and snowplows do not inflict accidental damage to the property. Before a storm comes, care should be taken to remove parked cars from important areas so that snowplows can indeed plow. Properties are often not clearly marked with poles that are higher than the snow, and snowplows can cause accidental damage to grassy areas or knock over smaller structures or signs that are hidden under the snow. Again, prevention is often key when it comes to snow and ice.

Once a storm has arrived, clearing snow from the roofs of buildings, including

clearing downspouts, is an important step in order to prevent roof leaks and even collapse. Shoveling snow from parking lots and treating sidewalks and other road surfaces with salt or sand can go a long way in averting accidents, both by car as well as pedestrians. Many roofs can be fitted with special snow guards to prevent melting ice from sliding off and hurting pedestrians below.

#### **SUMMER WEATHER**

Summertime is known for a wide range of dangerous weather events, including extreme heat, monsoons, thunderstorms, flooding and hurricanes — all of which impact both employees and facilities. Being aware of common summer weather hazards and how they could impact operations includes knowing regional weather issues as well as less common occurrences. Knowing the potential threats, such as heat waves, flash flooding and wildfires, can help organizations prioritize their emergency plans.

During the summer, FMs and security personnel are faced with a variety of potentially hazardous weather conditions and must plan accordingly. Weather patterns are unpredictable, so preparedness plans for health care, government and member-based

facilities must be reviewed on a regular basis to ensure employees and constituents are safe during weather emergencies.

Monsoon season for the Northern Hemisphere runs from about mid-June until the end of September. During this time, some regions can expect any number of extreme weather events, including heat, high winds and heavy rain. Due to the nature of storms, there might be little to no warning at all before a storm, flood, or tornado.

If located in a monsoon or hurricane region, FMs should protect their buildings from extreme wind by purchasing hurricane-proof windows to protect from flying debris. Lightning protection can also help to avoid damage from lightning strikes. Know that if a building is properly prepared, it can actually be the safest place for people to be during a monsoon storm.

No matter the season, knowing the common weather-related risks and how they can impact your facility is critical for preparing for potential threats. Advance preparation is key to maintaining clear communication during a weather crisis and ensuring employees are aware of response plans following a severe weather event. FMI

**Mary Beth Ormiston,** a FacilityDude program strategy manager and consultant, has more than 40 years of operational and risk management experience. She was previously a director of risk management for The Redwoods Group where she developed and initiated risk management and loss prevention initiatives. She also served as a YMCA CEO for 33 years, leading Ys in Iowa, Missouri, Michigan and Wisconsin.

Melding her membership operational experience with her risk management expertise, she is a well-respected speaker, presenter and problem solver. A graduate of the University of Northern Iowa, Ormiston is a Rotary Paul Harris Fellow and active in the Triangle (North Carolina) United Way.





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# LEADERS LIE

#### **FMJ EXTRA**







In a recent values workshop I facilitated at my workplace I posed the question, "Raise your hand if you're a leader." To no surprise only those with formal leadership titles immediately raised their hand. It was clear to see that everyone in the room reverted to the norm of how leaders are generally classified in a workplace.

What if I had posed this question to a group of random individuals at a coffee shop or at a grocery store? Does the environment and culture play a role in framing your definitions? The big question is does title really make you a leader? And inversely, do you need a title to be a leader? The answer is no.

#### What is leadership anyway?

The leadership industry is a booming one. There is no shortage of books, webinars, courses, conferences, videos, etc. on the topic. Many "leadership" experts and coaches have surfaced, and most recently, an overwhelming amount of entrepreneurs have redefined how the so-called traditional leader looks and acts.

Traditional theory classifies leadership as a social process of influencing feelings, thoughts and behaviors of others by identifying what needs to be done, how to do it and facilitating efforts to accomplish shared goals.

To fully understand leadership one must also go back to the fundamental lessons we are taught — some of which are

subconscious — that affect our thoughts and behaviors on the topic.

As babies and toddlers, we don't think twice about how we act or react. We are not comparing ourselves to others, nor do we care about what others think about us. Our priority is fulfilling basic needs, being secure and feeling loved.

A funny thing happens when we grow up. Even though a 50-year-old crying and throwing a temper tantrum is not a sight we would normally see, the need for feelings of security and being loved that we had at two years of age has not disappeared. Most will start comparing themselves to others and be cognizant of what others think of them. We start absorbing cultural norms, rules of behavior and for some, let society dictate how we think, look and act. We still strive to feel loved by fitting in and finding a group or environment that will make us feel secure. Although we are each born unique, unlike toddlers, we find a way to blend in our uniqueness with what is considered acceptable.

Why do we try so hard to fit in only to ponder how we can stand out? Were we more comfortable in our uniqueness when we barely knew how to walk?

As we go through our schooling and into adult learning, we are taught about role models and given examples of great versus not-so-great leaders. Strong leaders have been widely associated with the qualities of assertiveness, extroversion, charisma, intelligence and power. Our minds are framed with these prototypes and if we find a so-called leader who doesn't meet one of the prescribed traits we unconsciously dismiss them as not being adequate. If we are each born unique, it is evident that this formula does not work.

#### Why leadership is not for you

Leadership is beyond what the traditional sense of the word represents. This explains why many are unaware that they are leaders just by being themselves. The following list depicts traditional thinking on leadership which at times prevents people from reaching their full potential.

#### 1. I don't have a big title.

You mean you're not a CEO, vice president, director, manager, etc.? Senior titles are not easy to come by and at times are scarce. But there is something even more scarce, a title that only one person in the world can have. That is the title of being you.

Being born unique gives you the advantage of being unlike any other individual. Embrace the spark in you, feed it and let it come out for all to see. Someone is always taking notice and you may be making a difference without being aware of it. Take charge of who you were meant to be; accept the position of being CEO of yourself.

#### 4. I don't have experience.

Experience in what? A child is a leader when she proves she can ride her bike without training wheels, when he starts to pick out his own clothes and when she asks questions to determine how she will feel about a topic. Leadership starts with you — shaping and accepting who you are.

Nobody else can have more experience at being you than yourself. All the leadership courses, credentials and titles in the world do not guarantee you will be a good leader. Don't get me wrong — I have great respect for many people with leadership titles, as they have worked hard to get where they are. Unfortunately, some people feel a false sense of entitlement that often comes with experience and title. A person needs to prove her leadership capacity on a daily basis, being in tune with her aura, thoughts and actions.

Leadership first comes from within. Let who you are lead you into what you are meant to be for the day or in your career.

#### WHY DO WE TRY SO HARD TO FIT IN ONLY TO PONDER HOW WE **CAN STAND OUT?**

#### 2. I'm not an extrovert.

Who determines the ideal leadership traits? Forget the prototypes, as they put us in boxes and automatically dismiss people who may have great potential. At the same time, what if you're shy? What if you're terrified of public speaking? What if you lack charisma? Actually, the worst scenario to be in is "What if

you refrain from being you for fear of what others may think?" To lead is to go for it. Proceed with confidence — give the world a chance to see what you're made of.

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#### 3. I don't have power.

You have more power than you think. You are alive and life is full of possibilities. Stuck in a dead-end job? Don't like the rules? Don't see traction in a project? Instead of putting yourself in the box of not having the title to make certain decisions, step out of your engrained prototype thinking and find opportunities on your own. The world is full of gaps. We tend not to notice them because we choose to walk on the road that has been nicely paved over and over again by our actions and thoughts.

You have the power to make opportunities rather than wait for opportunities to come to you. You are the only one who can give yourself permission to be placed in a position of no power. As long as you are breathing, you are in control (and have complete power) of your thoughts and actions. When you do this others will notice and, despite what you may think, will want to follow your lead.

#### 5. I don't have any followers.

That's what you think. You may not realize that someone is learning from you when you least expect it. When driving, have you noticed that people may take your lead to change lanes? When at a restaurant, has someone ever ordered what you have because it looked good? Has a colleague adopted your presentation style, system for file organization or included you in meetings because you included them? The list can go on and on.

People often think of leadership in such a formalized way that they neglect to see daily elements that make them leaders. Imitation is the highest form of flattery. If someone makes the effort to copy you it's because they took notice of something that you did that is helpful for them. Leaders initiate. They create opportunities for others to follow, learn and eventually take the leadership role themselves. It's a reciprocal process.



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#### 6. I don't want to be a leader.

If you don't want to think for yourself, follow your dreams, embrace who you are supposed to be or make your own decisions then yes, I would agree. Despite your background and situation, you have the power to change your perspective. Nobody can take away your inner drive or the fire that makes you be you. You lead your way to your own success, whether that is a certain role or a certain state of mind. It is important to start thinking of leadership beyond the confines of title and number of followers.

Leadership is the ability to take ownership of you. I have yet to meet someone who does not want to achieve that.

#### 10. I don't know how to become a leader.

Don't try so hard. Being you should come naturally. Think beyond titles, beyond followers and beyond any box that society has put you in. That is the noise that is getting in the way of you hearing your calling. Figure out what motivates you and map out a way to always make time for your motivation each day. The first step is changing your frame of mind so that you are in charge of it rather than it being in charge of you.

Lead yourself to your envisioned reality. Along the way you may even pick up some followers. If you believe it you will achieve it.

#### **AUTHENTICITY IS THE** NEW POWER TOOL.

#### Make your own dent

Leadership theories are backed up by impressive research from experts who have made sense of their findings in an organized way. Although the volumes of work out there are incredibly smart and thorough, the truth is that anything dealing with people is messy. That is what makes being human worthwhile and exciting. As unique individuals, people have the power to start over each day. One day one may choose to lead, other days we may give others a chance to step up to the plate.

A leader can be shy and soft spoken. A leader can be young. A leader can be old. A leader can be anyone who dares to be themselves during times when nobody else will.

#### 7. I am not given any opportunities to lead.

I would like to challenge that. Refer back to thought number three on page 100.

#### 8. I don't have the time or energy.

Yes, leadership does take time and energy. But it takes more time and energy to constantly be someone you are not. Again, placing the traditional title-based leadership aside, you can't be a leader to others without being a leader to yourself first. Title-based leadership is not for everyone, and that's okay. Life is about variety. If we were all meant to be leaders in the same way then there would be no original thinking.

You owe it to yourself not to let others dictate how you show up or think. You are unique on purpose. Stop spending so much time hiding behind a different personality — it can get exhausting.

#### 9. I don't want the attention.

The best leaders are those who don't demand or require attention. They subtly go about their day or idea without realizing othat they are impacting others. They are themselves and are comfortable with being real. In this day and age formality and special limelights have taken a back seat. Authenticity is the new power tool. The good news is that everyone has access to realness and its strength can be adjusted according to your comfort level.

Nobody changed the world by being like everyone else. Dare to be you. Dare to lead. FMJ



Andrea Sanchez is IFMA's senior director of strategic communications and editor-in-chief for FMJ. She has been with the association since 2007 and has more than 15 years of experience in the communications and editorial field. Her passion involves social media, challenging status quo thinking and assisting others

reach their full potential. In her spare time she hosts #DareToBe chat as @ asanchez16 every Tuesday at 8 p.m. ET on Twitter. Sanchez can be reached at andrea.sanchez@ifma.org.



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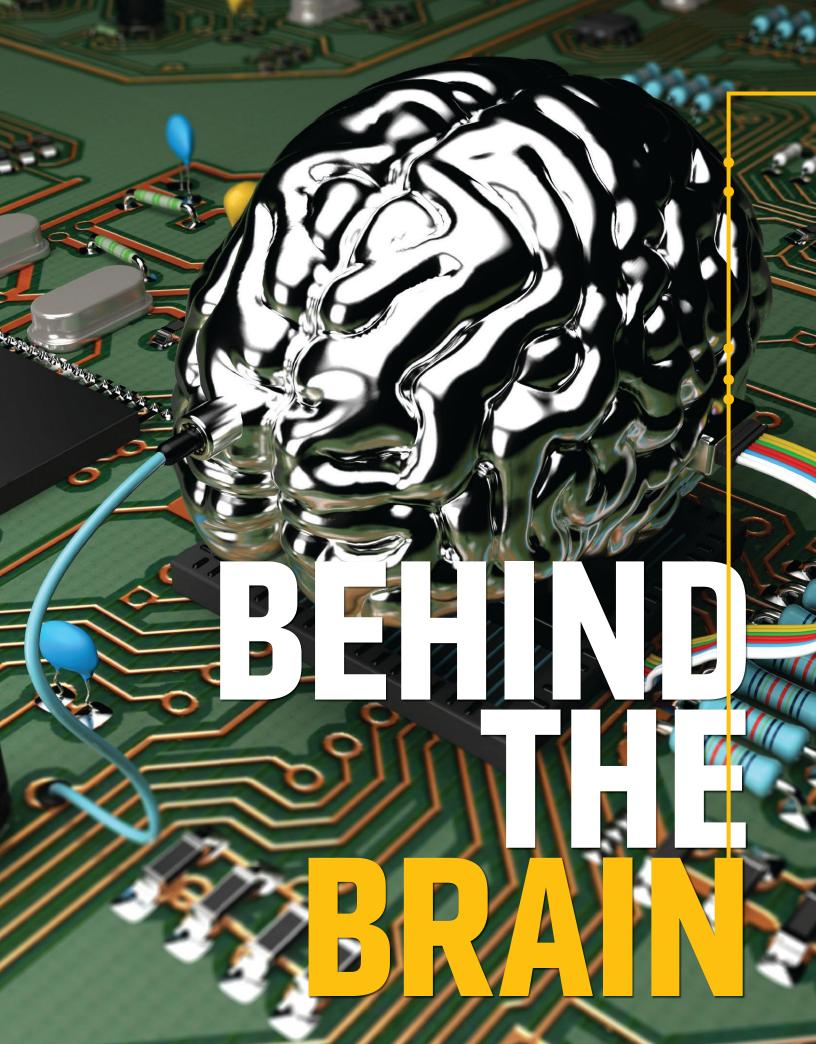


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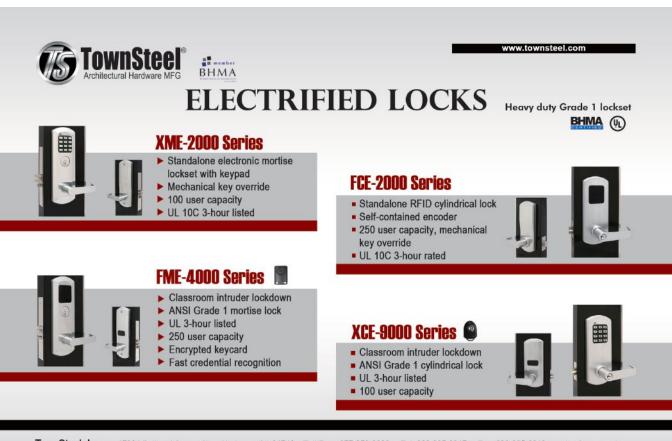
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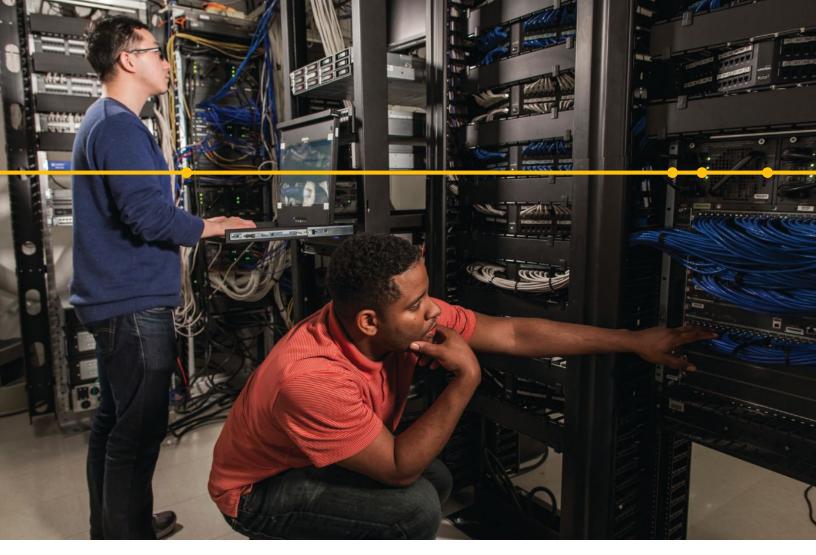
s customers look for more data and faster turnaround times, technology platforms that centralize operations have become essential to successful facility management. This push toward technology-fueled management is based on organizations' need to reduce costs and improve labor efficiencies by combining operations into one centralized system.

Many industry-leading companies are already using technology to compare average costs by trade; analyze work orders, call center efficiency and budgets; and compile vendor scorecards. These platforms offer central hubs where every aspect of work is measured and all decisions can be supported by data.

Technology is the backbone of this shift, but using a software platform to centralize operations is only part of the equation of a successful facility management system. It's the marriage of updated technology and a knowledgeable team of experts that brings organizational leaders the peace of mind that the right work will be done at the right price and on time.



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#### FACILITY MANAGEMENT IS CHANGING RAPIDLY.

#### **Developing the technology**

Technology is evolving day-to-day, and facility managers are working along with service providers to develop innovations that can reshape the way companies manage their maintenance operations.

As a result, facility management companies need comprehensive teams of developers who work exclusively on technology platforms to bring cutting-edge advancements to customers. These companies must invest heavily in technology to remain competitive.

Successful facility management requires that multiple operations — everything from managing vendors to making sure the work is completed on time — work seamlessly together. Combining all facets of operational management allows facility maintenance businesses to save clients time and money.

Using a comprehensive technology platform to combine all aspects of operational management into one cohesive system, facility management companies can give clients

real-time visibility, actionable big-data analytics and transparency, as well as streamlined communications and administration.

"The growth and convergence of processes, data and things on the Internet will make networked connections more relevant and valuable than ever before," according to Cisco. "This growth creates unprecedented opportunities for industries, businesses and people."

#### **Doing more with less**

The challenge to do more with less reaches across various industries. One of the key opportunities in facility management is how the industry will handle the projected shift in the number of highly skilled managers available as the current workforce ages.

In a 2014 survey on the pulse of FM, 30 percent of respondents indicated that their top concern was not having enough resources. Concerns about increasing workloads was reportedly the second-greatest concern.

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So the question remains: How can facility managers most efficiently do what needs to be done in the face of shrinking budgets and staff?

There's not just one answer, but technology can be an important tool in providing the predictive analysis and real-time measurement to improve productivity with level or decreasing resources. As a result, facility managers can better prioritize projects, enhance efficiency and maintain or advance the quality of work overall.

One example can be drawn from the SchoolStat program in New York City's Department of Education, which helped enhance efficiency. "The idea behind it is that data-driven analysis drives better decision making," says John Shea, CEO of the division of school facilities.

Twice a year, inspectors go out to the schools and evaluate maintenance conditions and cleanliness of areas including classrooms, bathrooms, gyms and cafeterias. They answer a series of questions and use an algorithm to determine an objective rating on a scale of one to five. Review sessions with directors and deputy directors of facilities help determine where they need to focus resources.

"For every dollar you don't spend on maintenance now, you will spend three or four more in a few years," Shea says.

Predictive technology can help highly skilled facility managers focus on organizational priorities and enhancing efficiency, as one part of the broader solution to the challenges of level or decreasing human resources in the industry.

#### Responding to occupant needs

DWM Facilities Maintenance had to find a way to adeptly respond when one of its clients, a major beauty company with several locations, experienced flooding at a store in Missouri. The flooding could have caused mold or mildew issues if not fixed immediately, so DWM service operators acted quickly to contact appropriate vendors and communicate with the client. DWM leveraged its data to get qualified plumbers and a restoration crew to the site within 20 minutes of the initial phone call, ensuring the issue would be completely resolved.

FMs and FM services companies function as subject-matter experts to bring deep industry knowledge to properly leverage centralized operations software.

There is no one-size-fits-all facilities maintenance software solution. Instead, FMs must work with occupants before launching new software and on an ongoing basis to make sure they are getting what they needs, whether that be communication, visibility, process improvement or another function.

Microsoft Facilities and Energy Director Darrell Smith's philosophy is simple: "Give me a little data and I'll tell you a little. Give me a lot of data and I'll save the world."

#### Looking ahead

We're still on day one it comes to finding out how technology will shape the way companies manage their maintenance and other facilities operations. But as we move further down this technology path, we're headed in a specific direction: one of increasingly sustainable growth for organizations, their workforces and potentially the environment as well.

"The maintenance department is often the focus of environmental policies because maintenance itself is a key part of sustainability, as it improves operations and contributes to longer asset life," says Steve Brous, president and CEO of MPulse maintenance software. "After all, the best way to reduce waste is by preventing assets from becoming inefficient and from breaking too soon in the first place."

Because software platforms can help track where money has been spent or saved over time, they can also allow FMs to see where they lack efficiency in energy usage and other areas. As the technologies evolve, facility management professionals must listen closely to occupants and adapt to their needs.

Solving the issue of a declining skilled trade population will be another focus for facility managers of the future. According to ManpowerGroup, skilled tradesmen mechanics, electricians, machinists and more than 15 other kinds of skilled workers — are aging, and fewer people are learning those skills. The group expects the skilled trades gap to increase in the coming years.

It will be the job of facility management teams to overcome this trend by ensuring that new workers are appropriately educated and keeping experienced workers in those jobs.

From small-box retailers with a few locations to worlddominating campuses, facility management is changing rapidly. To keep up with this evolution, constantly updated technology teamed with skilled, forward-looking people will continue to be integral to the FM landscape. FMJ



Joshua Lessack is vice president of operations for SMS Assist. In this position, he has played a vital role in the growth of the facilities division, expanding the team to include highly trained customer service representatives, trade specialists and account managers and spearheading the creation of client-

and trade-specific training programs for new employees.

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double-width rows, each with selectable universal top insert openings for general and recyclable waste with corresponding front- and side-panel graphics. They offer locking front openings, a variety of main and accent colors and can be fitted with optional angled or flat hoods over receptacle openings, as well as side-panel graphical cutouts for waste, recycling or geometric patterns.

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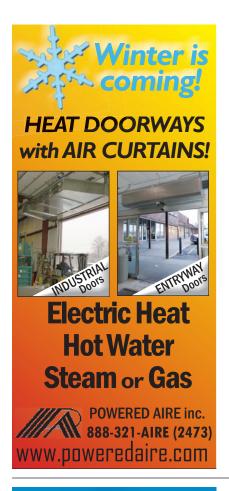
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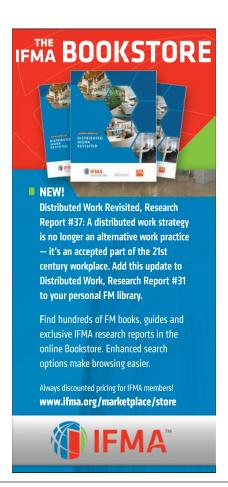
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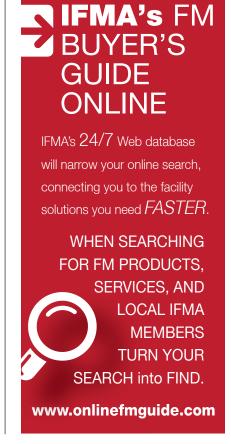
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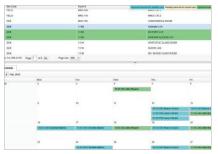
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# FMJ EXTENDED

#### SEPTEMBER/OCTOBER 2015

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# ASK THE EXPERTS

BY IFMA'S FACILITY MANAGEMENT **CONSULTANTS COUNCIL** 



In each issue of FMJ, IFMA's Facility Management Consultants Council shares some commonly asked FM-related questions accompanied by advice from top FM consultants. The questions and answers presented in this section align with IFMA's core competencies following the themes outlined for the given edition of the magazine.

While the following answers are intended to be helpful, these responses should not be deemed complete and are limited in context by the space allocated. Please contact the individual consultants directly for further explanation of the opinions expressed.

The theme of this edition of FMJ is "Building the Future of FM."

The Facility Management Consultants Council (FMCC) represents more than 300 FM consultants from various countries around the globe. Its mission states, "The FMCC is the resource and voice for facility management consultants worldwide to leverage our collective expertise to benefit IFMA members, and the facility management profession."

Ouestions regarding the Ask the Experts section of FMJ can be directed to Mark Sekula, IFMA Fellow, CFM, FMP, LEED AP, president of Facility Futures, Inc., at msekula1@wi.rr.com.

Visit FMCC online at fmcc.ifma.org or join the conversation on the council's LinkedIn group at http://linkd.in/1qAa8ae.

#### OUESTION

Technology and FM are closely tied. We use technology to operate our buildings and to manage our FM organizations. What emerging technologies do you see significantly impacting FM in the next five years?

#### ANSWER:

The emerging technologies according to a recent survey by Joachim W. Hohmann of Consultants Circle conducted in Central Europe are:

- Mobile systems (smartphones, tablets)
- IoT (Internet of Things)
- Big data and analytics
- IP-based controls
- Augmented reality
- BYOD (bring your own device)

#### ANSWERED BY:

Joachim W. Hohmann, PhD, MSc, CFM Managing Partner, Consultants Circle Am Berg 15, 64625 Bensheim, Germany

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**Joachim W. Hohmann**, PhD, MSc, CFM, is a professor at the School of Building Construction of the Technical University Kaiserslautern, Germany, teaching foundations of facility management and information

technology. As a cofounder and CEO of Consultants Circle in Frankfurt, Germany, he provides consultancy in facility management strategy and technology to major companies and federal agencies and state and local governments. He is a chartered surveyor of the European Patent Office and author of numerous books, articles and surveys on IT in facility and real estate management.

ANSWER: Architectural Dynamics, an invention of Orfield Labs, is the concept of the perceptual environment in a workplace being flexible and changeable based on databases about human preferences as well as measurement sensors measuring the ongoing environmental conditions, inside and out, including measurement of behavioral response. Is the occupant thermally comfortable, bored, tired, excited, happy or sad? Is a resolution needed and what should the building AD system be programmed to do?

The office of the future will be more like a canvas than a finished work, and interior design will enable spaces to accept the fluidity of change. The office of the future will, at both the general and the workstation level, provide a better environment by enabling more appropriate and changing stimuli.

#### ANSWERED BY:

#### Steven J. Orfield

Orfield Laboratories, Inc.

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Steven J. Orfield, founder of Orfield Laboratories, Inc., has been involved in the architectural and product consulting field for four decades. His career began with acoustical and lighting research and design in

open-plan offices and he has since become involved in product research and evaluation methodologies for architecture.

Orfield takes a human factors approach to architectural technologies, emphasizing user experience. He has authored and been featured in more than 300 national articles and is the founder of the Open Plan Working Group and the Architectural Research Consortium.

**ANSWER**: The development of technology seems to advance at a pace beyond what many people can appreciate. The open development protocols that permit virtually anyone to develop an app to be distributed on the iTunes Store or via Google Play ensure that more and more new options will become available and others will evolve. There are almost no limits to the "imagineering" (thanks to Disney for the term) that exists.

Most of this is focused on the future built environment. However, there is an immense market of existing buildings that need technology applications.

Existing sites have diverse control systems that often operate in a stand-alone capacity and no longer realize the efficiency that is possible and desired. Well-known examples include iterations of building automation, energy management, lighting control and power monitoring, as well as various life safety systems. Some of these systems have been in operation for more than 25 years and are a mix of proprietary and so-called open protocol. They include analog and digital controls that are connected with copper wire, coax and fiber optics. Each was considered a great idea at that time, but technology has progressed. These are the systems that need attention.

The most effective emerging technologies will be those that can integrate the already-installed systems to better link and report various systems' data while ensuring communication compatibility between systems. Technologies that bridge and help transition to the future will pay huge dividends.

#### ANSWERED BY:

Stephen Brown, CFM, FMP, SFP, CPE, CBCP, REM, CESCO FM-adviso, Ltd. Saudi Arabia slb@fm-adviso.com



After a successful career in stateside facility management, **Brown** assumed a position with an international portfolio. Since that time, he has held senior posts in the Caribbean, U.K./

Europe and the Middle East. After more than 20 years managing the built environment for both private and public-sector organizations, Brown founded FM-adviso, Ltd. to support organizations with specialist and credentials training in addition to consulting on operational efficiencies, outsourcing, environmental matters and emergency response/business continuity.

**ANSWER**: With technology developments over the next five years, data analytic improvements will lead to increased system reliability, more efficient operations and energy savings. This will be possible by allowing early identification of developing failures, and more proactive adjustments and repairs prior to failures.

FMs will be better able manage and act upon the current explosion of automated real-time data collection within facilities operations. In addition, the level of data collected will expand further into monitoring more sub-component levels of equipment providing increased insight into performance and efficiency.

Analysis of large databases will become automatic and established target parameters will be maintained for HVAC, lighting, security and automated access control systems. Real-time equipment operations will be automatically coordinated with utility usage to directly impact demand charges and allow the optimization of energy usage and expenditures. Building automation and meter data management programs will migrate to consolidated platforms with enhanced IT security that will include data security for wireless devices.

The increased use of wireless devices by building managers to control systems remotely from outside of expensive conventional control centers will lead to quicker identification and corrections of identified problems. This will also allow rapid adjustments to building systems when program overrides are needed to better serve occupants.

#### ANSWERED BY:

#### Dan Geldermann, P.E., CFM

Principal Engineer, Infrastructure & Energy Services

Phone: +1-703-797-8816 | Cell: +1-703-927-5104 www.calibresys.com

Dan Geldermann, P.E., CFM, is a principal engineer at CALIBRE, a firm specializing in management and technology consulting. He has more than 30 years of progressively increasing responsibilities and experience in facilities engineering, management, contract and project administration, and program and personnel management. Over the past 15 years he has provided facility management consulting services to the public and private sectors on organizational process improvements in operations and maintenance using industry best practices.

# **ENGAGING OCCUPANTS:**

# SIX TIPS FOR ACHIEVING SAVINGS FROM YOUR SUSTAINABILITY PROGRAM

#### BY CYNTHIA PUTNAM

Ask facility managers if occupant engagement brings value to their operations and you'll get a range of responses from "absolutely, yes!" to "don't bother; it's out of your control." If you have doubts, you're not alone. As one colleague recently quipped, "our buildings would work a lot better if there were no people in them."

If anything is certain about facility management, it's that buildings and their occupants come as a package. Whether you're a skeptic or believer, occupant engagement is an area of opportunity for facility managers. When effectively done, it can deepen the impact of your facilities initiatives, from improving workplace safety, dampening noise and reducing operating costs to energy and resource management and sustainability programs.

This article is part of a regular series in FMI Extended contributed by IFMA's Environmental Stewardship and Sustainability Strategic Advisory Group.

#### How can it be done?

JSH Properties in Seattle, Washington, USA, recently completed a tenant engagement demonstration project to shut off workstation electrical devices. A 13 percent reduction in electricity use was achieved after the first three months, and an even deeper 20 percent reduction thereafter, according to Emma Karlsson, director of sustainability.

The project engaged tenants in workstation actions to reduce plug-load energy use in combination with Friday night sweeps by the JSH team to reinforce workstation actions. Operational changes that focused on copiers and vending machines were also implemented. The project equated to an annual savings of US\$6,000 in electricity costs for a single floor participating in the demonstration. Extending the campaign to additional floors bore promise for even greater savings.

In a 2011 study on building energy performance, the New Buildings Institute found that the behavior of building tenants has a significant impact on overall building energy use. Figure 1 shows the impact on total building energy use of behaviors directly controlled by the tenants such as schedules, increased plug loads, poor management of night plug loads and lighting controls.

"Tenants are seldom in a position to recognize the direct impact they have on total building energy use," according to Mark Frankel, technical director. He recommends the installation of sub-metering and energy-use dashboards as effective strategies to help tenants understand and reduce their energy use.

## Occupant Behaviors Impact Building **Energy Use**

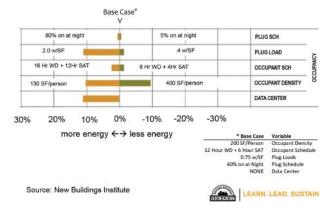


Figure 1. Occupant Behaviors Impact Building Energy Use

A growing number of facility managers are gaining on-theground experience with occupant engagement. A recent query to the Environmental Stewardship and Sustainability group within IFMA's Online Community that requested "ideas for getting occupants to save energy in the workplace," received an overwhelming number of responses. There is a whole body of research in this field documenting strategies that work and pitfalls to avoid with occupant engagement. As a facility manager, you may find value in performing a preliminary assessment of occupant engagement opportunities in your organization using the following strategies.

#### Six tips for engaging occupants

# 1. Pick the right behaviors, and measure them

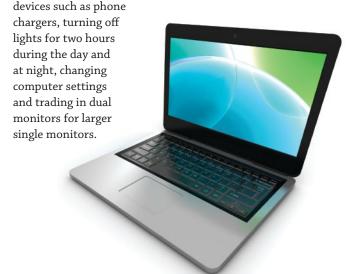
What behaviors make a difference, and are they measurable? One place to start is with a behavioral audit. When Karen Cochran, sustainability lead for Pacific Gas & Electric (PG&E), looked at opportunities with the utility's San Francisco operations, she felt that "because we have so many building systems automated, employees have more impact on waste diversion than on energy use."

One way that PG&E leverages employee involvement is with an annual waste diversion contest in its headquarters building. The utility's waste program includes three disposal bin types: compost, recycle or waste to landfill. Although the system has been in place for many years, it differs from what some employees use at home.

The waste contest focuses on accurate waste-sorting behavior. "This behavior ensures we can effectively measure the results," notes Cochran. Each night for a month, bags of each are counted to determine the percent of waste diverted from landfills (compost + recycle / landfill = percent diverted). The floor with the best diversion rate wins bragging rights, a lunch and a trophy.

"Rather than assume, do your research," advises JHS Properties' Karlsson. She conducted observations, interviews and surveys of tenants to identify target behaviors. She also measured historical energy use to establish a consumption baseline for weekdays and weekends.

The research findings showed that 50 percent of tenants left their computer monitors on after leaving work. As a result, the JSH team decided to include it on a key list of occupant actions. These include shutting off and unplugging electrical



# 2. Focus on two or fewer behaviors and establish a timeframe

While there may be dozens of ways to save energy in the workplace, behavioral change is hard enough without the burden of trying to do everything at once. Focusing on one or two behaviors is more achievable for occupants and ensures the potential for early success with your program.



In its lights off campaign, Mecklenburg County in North Carolina, USA, targeted two lighting behaviors — task lighting and common-area lighting — to save energy and reduce utility costs. Lighting was targeted because "on and off" is verifiable. Audits were conducted prior to the campaign to determine the baseline behavior as well as after to see subsequent or modified lighting use behavior.

The game "Crab, You're It" encouraged turning off lights by engaging 350 employees in a game-like atmosphere for six weeks. Employees caught leaving lights on while not at a workspace for more than 15 minutes would find a plastic Fiddler crab (a light-attracted crustacean found locally) on their desks. The employee with the crab would then find an unattended workspace with the light on to release it, or return the crab to a centrally placed bucket if no offending workspace was found. One month after the program, the final audit showed an 80 percent increase in lights turned off when not in use. A second "Adopt-a-Light" campaign encouraged responsibility for lights off in common areas.

Chris Taylor, energy manager at Naval Air Station Whidbey Island in Washington state, USA, found that HVAC nighttime setback "offered the greatest reward" for his occupant communication initiative. His program focused on matching the actual needs of tenants to HVAC scheduling.

During interviews, "tenants tended to overstate their needs," said Taylor. "Many said they were 24-hour operations when in actuality they were 24-hour capable." Nighttime building walks confirmed this to be true and, in turn, gave Taylor the wiggle room he needed to adjust HVAC schedules from 24/7 operation.

# 3. Show management the benefit of engaging employees

"If our goal were to save energy, then we'd shut down all of our schools and send the teachers and students home." This was the response from the school superintendent of a large district in Ohio when her resource conservation manager (RCM) presented a proposal to save utility costs with a teacher engagement campaign to remove space heaters and refrigerators in classrooms. The proposal was reworked to show how the campaign would support the district goals of providing a safe and effective classroom learning environment while freeing up dollars to invest in community initiatives important to management.

The RCM successfully won the superintendent's support on the second attempt, providing him with a critical team member for his campaign. The campaign involved regular communication from the superintendent's office to school principals about the benefits of the new space heater and refrigerator policy and how to address teacher concerns.

Management plays an essential role in any occupant engagement program, not only as an influential messenger to occupants, but as champion for what may come later.

This could include extending your program from a pilot to a broader employee base or expanding it to target a new behavior change. Upper management also shapes the organizational culture, whether it's one of continual improvement, innovation or efficiency.

Getting buy-in from his commanding officer was a critical first step in Taylor's HVAC setback program. One portion of his campaign targeted the Fleet Readiness Center, a 187,000-square-foot building that accounted for 10 percent of the Navy base's overall energy consumption.

"Command-level support made our initiative a priority for the managers and tenants in building," Taylor noted. With this backing, he held face-to-face meetings with building managers and occupants to gain agreement on HVAC schedules, then did frequent check-ins with occupants following schedule adjustments to address concerns. Commander support gave him the backing he needed while also providing the added bonus of engaging command participation in recognition events to celebrate occupant success.



#### ESSENTIAL DATA FOR YOUR OCCUPANT BEHAVIOR PROGRAM

Doing initial research on occupant behaviors helps you target the ones that will get the best results.

#### **Observation**

Space layout, available technologies, how the space is used, what people wear, temperature settings, individual practices (such as turning off lights and computer monitors), after-hours activities, operation, etc.

#### Interviews

Attitudes, values and practices of decision makers and influencers.

#### Surveys

Individual work patterns, technology use patterns, attitudes, values, knowledge and concerns. Occupant survey template: www.cbe.berkeley. edu/research/survey.htm.

#### Historical, interval-level energy data

Baseline energy consumption, historical patterns, weekday versus weekend use, etc.

#### **Focus groups**

Office dynamics, organizational culture and values, key stakeholders, organizational structure, potentially contentious issues and concerns, etc. Focus group question list: www. surveymonkey.com/r/?sm= percent2F percent2BgGBiwMPQshm0XrUw000Q percent3D percent3D.

Source: JSH Properties, Whidbey Naval Air Station, 2015

#### FOUR EXAMPLE **FRAMEWORKS FOR OCCUPANT ENGAGEMENT PROGRAMS**

#### 1. Engage occupants toolkit

#### (ENERGY STAR):

www.energystar.gov/ buildings/facility-ownersand-managers/existingbuildings/save-energy/ engage-occupants

#### 2. Community-based social marketing

(Doug McKenzie-Mohr): www.cbsm.com/pages/ guide/preface/

#### 3. Rules, roles and tools

#### (U.S. Department of Energy):

http://energy. gov/eere/femp/identifyinstitutional-change-rulesroles-and-toolsconstituting-contextsustainability

- Rules: The formal and informal rules that affect workplace behavior
- Roles: The people within an organization who are important to achieving and maintaining sustainability qoals
- Tools: Workplace technologies, systems and processes used to meet particular needs

#### 4. Four quadrants of engagement

(Renee Lertzman):

http://daily.sightline. org/2014/03/12/breakingthe-climate-fear-taboo/

# 4. Address employee motivation and ability

Are your occupants familiar with the company's sustainability program? What matters to or interests them about sustainability? How much impact can they have in their role? Getting answers to these questions can help you identify the right set of communication tools that will educate and motivate them.

The project team for Mecklenburg County's lights off campaign found that occupants were more likely to leave common-area lights on when unclear about responsibility for shut off. Likewise, employees who were not in the habit of turning off their workspace lights believed the practice was no longer an organizational priority. Assigning responsibility and communicating "lights off" priorities emerged as simple and obvious first steps to include in the campaign. To address motivation, the project team invited occupants to preview the campaign's message and visual presentation.

Others advise that if you create a reward system, consider asking the occupants what would be meaningful. Maybe one month it's a pizza party, another it's a picnic or a third it's coupons to the movies.

Taylor issues feedback to occupants monthly in the form of tenant energy reports as well as quarterly awards for improved efficiency and participation such as command parties, time off and dedicated funding for building-specific maintenance projects. He also found that terminology makes a difference when communicating benefits. Using "efficiency" versus "conservation" and "works better" versus "use less" were effective with his occupants.

Occupants were asked to do self-audits using an energy department-provided checklist. "This helped building managers to get a better feel for where the energy was going in order to identify possible improvements," said Taylor. "It also helped building managers feel proud their facility was working better; that they had improved it."

# 5. Follow a proven framework for your program

A framework provides a structured, step-by-step approach for designing and implementing your behavior change program. Like a recipe, it gives you the essential ingredients for success while offering flexibility for adaptation to the unique needs of your occupants.

A quick literature search will surface a host of frameworks (see sidebar - Frameworks for Occupant Engagement Programs). Most have four elements in common: engaging the right players (management, occupants, operators, etc.), guiding their behaviors/actions, providing the necessary tools (communication tools/channels, education, rewards, etc.) and measuring and sharing results.

The Mecklenburg County project team used the community-based social marketing framework for the "Crab, You're It" campaign. The framework involves identifying barriers and benefits which enable the desired behavior, creating a plan that engages the essential tools, choosing a size-effective sample for the pilot and reviewing the accomplishment upon completion. When selecting a framework, keep in mind that one size does not fit all. Pick one that offers the structure and flexibility that best suits the resources you have.

A common challenge for those experienced with occupant engagement is maintaining motivation over time. Occupants forget, lose interest, move to other locations and are replaced with new occupants. Improving the link between behavior change, results and recognition is essential.

It can be useful to reissue surveys to solicit feedback. Listen to what occupants tell you and match rewards accordingly. Maintaining the same reward will result in loss of interest and increased energy consumption. Keeping occupants motivated is a continual process — prepare your program for the long term.

### 6. Evaluate and share results

Results tell all! Campaigns that adhere to the guidance in step 2 — picking measurable behaviors and establishing a consumption baseline — are guaranteed results for their efforts. Even if they aren't what you expected — for example, no noticeable change, or even worse, poorer performance than pre-campaign — results still provide valuable information for making improvements to your future strategy and outcomes.

After the first three months of the HVAC scheduling campaign, Taylor was able to compare baseline consumption to the campaign period to show results. "The campaign was achieving an overall improvement of 5.5 percent in energy performance," said Taylor, with no change in operations or production levels. These were notable results to share in his quarterly report to the commander and to use as the basis for a celebration party with the winning facility occupants and building managers.

Not ready for show time? If you like these ideas but don't have the time and resources to take the plunge, consider these simpler strategies for dipping your toes in the water.

Whiteboard notes from facilities. Whiteboards offer two-way communication that provides accurate, timely information to occupants and allows feedback.

Teresa Rogers, assistant facility manager with Hines, began using this approach when her client put the brakes on email notices from facilities. She installed whiteboards with colorful pens near kitchenettes on each floor, with

"A Note from Facilities," written on the corner of each board, along with her contact information. She monitors the boards two to three times a day to in order to keep up with questions and answers, all of which are dated.

The whiteboards are also used for facility announcements, such as notifying building occupants of a fuel spill that would impact parking for several days or that elevators would be down on a Saturday.

- **Lunch and learns.** Richard Laws, physical plant manager at United Radio in New York, used a lunch-andlearn program to educate some 400 employees about the company's energy management program and how they could help. The events were catered and held weekly over a six-month period. "I received a lot of buy in from everyone on the importance of the initiative and their desire to help save energy," said Laws. It was a great way to open eyes to the nuts and bolts of running large buildings with heavy energy consumption.
- Building rounds. Tours and walk-arounds don't take a lot of time and provide a way to showcase new projects and educate occupants about the work of the FM department. During his term as director of facilities engineering for a hospital in Portland, Oregon, USA, John Junk invited his CFO on rounds to highlight progress on capital projects and to provide a look ahead to future needs. The rounds offered him a leg up on securing support for his master plan requests.

These methods only touch the tip of the iceberg but have hopefully offered a glimpse into the tremendous potential occupant engagement offers FM professionals for achieving more with sustainability programs. For additional resources, check out the many references and case studies in the sidebars, and watch for an IFMA Sustainability How-to Guide on occupant engagement to be published in 2016.

As you look ahead, consider the wise perspective of a member of the IFMA Environmental Stewardship and Sustainability community. "Change in machines is easy but changing human behavior is harder than we can imagine. If you want to take my advice, 'lead by example and be patient.' It has always worked for me and I believe it will work for you and your managers, too." FMJ

#### REFERENCES

- Sensitivity Analysis: Comparing the Impact of Design, Operation and Tenant Behavior on Building Energy Performance. http://newbuildings.org/sensitivityanalysis-comparing-impact-designoperation-and-tenant-behavior-buildingenergy-performance.
- JSH Properties. www.betterbricks.com/ market-partners/jsh-properties.
- Landlords and Tenants Team Up for Energy Efficiency. www.energystar.gov/ sites/default/files/buildings/tools/ EPA\_ES\_Tenant\_Report\_508.pdf
- Mecklenburg County's Land Use and Environmental Services Agency (LUESA). http://charmeck.org/mecklenburg/county/ LUESA/AirQuality/Documents/CBSM percent20Final percent20Report.pdf.
- Whidbey Naval Air Station. www. aeecenter.org/files/newsletters/ESMS/ OccupancyMatching.pdf.

Skill-building webinar series: Communicating to Building Occupants. www.theboc.info/m-prerecordedwebinars.html.

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# Leveraging the POWER of Apps for FM



#### BY DAN WARD

n an increasingly digital and mobile-friendly world, mobile applications have begun to make the transition from helpful add-on to essential tool. Mobile app utilization is spiking across a wide range of industries, and facility maintenance and management is no exception with new apps emerging that are specifically designed to empower employees, make reporting easier and more efficient, and ultimately provide an enhanced level of service.

The best mobile apps are purpose-led or goal-driven, and for facility management professionals looking to improve communication and enhance the reporting process, a robust mobile app provides the tools to do just that. In fact, when designed, developed and deployed correctly, a facility management app allows users to report issues from anywhere in a facility without having to be tethered to a desk or near a phone to submit a claim.

Advanced tools can make it possible for the app to pinpoint where users are making claims from within the facility, helping to get issues taken care of more quickly. Notice a problem in a bathroom? See a burned out lightbulb in the hallway? Require help cleaning up a spill in the break room? No matter the circumstance, a robust facility maintenance app provides users with the ability to submit a job on the spot without having to remember to do so once they return to their desks.

For facility maintenance and management professionals, understanding the benefits that an effective mobile app can have for both properties and personnel should be a priority. In addition to an appreciation for the basic functionality of facility maintenance apps, industry decision makers should have a working familiarity with accepted best practices for vetting app developers and successfully designing, developing and deploying a facility management app.

#### App-solute benefits

The benefits of a thoughtfully and strategically designed facility management app can be transformative, enhancing efficiencies and unlocking new processes that speed up services and make it possible to perform critical tasks with an unprecedented degree of precision and timeliness.

Quicken Loans, for example, recently launched a new facility maintenance app called qPOP! which has been extremely successful. The qPOP! app allows employees in the Quicken Family of Companies to quickly and simply report facilities issues via their smartphones. Prior to the app, Quicken employees had to email or call in facilities tickets — a process that usually required employees to be at their desks. The new app makes submitting a ticket a painless and virtually instantaneous process.

The Quicken Loans app also includes another handy feature found in many of the best new facility maintenance apps: it is conveniently pre-loaded with common maintenance requests, such as replacement of burned out lightbulbs, temperature adjustments, office supply inquiries, furniture repairs and more. It is also optimized to work with Bluetooth low energy, making it possible to determine where team members are located within any Quicken Loans property when making a request through the app.

# THE QUESTION OF WHETHER YOU NEED AN APP IS QUICKLY BECOMING LESS OF AN "IF."

The simplified design of qPOP! and other similar apps is intended to deliver maximum utility with optimal usability. The primary goal is to make it possible for team members to submit job tickets in the most streamlined and efficient manner possible.

#### Determining if you need an app

The question of whether you need an app is quickly becoming less of an "if." Smartphone usage continues to rise, and consumers are increasingly looking for apps to leverage that will make their lives easier by improving how they conduct daily tasks.

Just like business leaders once argued the merits of creating a website — but now understand the importance of having a credible Web presence — decision makers are conducting similarly misguided conversations around the creation of mobile apps. And, just like a poorly designed website can create a negative brand association and put off potential customers, it is important for facility management professionals debating the value of creating and deploying a mobile app to remember that a poorly designed app can be more detrimental than having no app at all.

When determining if you need an app, the first step is to understand that the best apps are goal-driven or purposeled and typically help organizations address or overcome business pain points. Decision makers need to understand where their pain points lie and how they can deploy an app to help overcome these challenges.

In the example of Quicken's qPOP! app, the company was able to enhance reporting capabilities by allowing employees to report issues on the spot, no matter where they were, ultimately allowing maintenance issues to be addressed in a more timely fashion. Think about any challenges your business faces that could potentially benefit from a streamlined, intuitive and easy-to-use engagement platform like an app.

Next, agree on audience. For qPOP!, the audience is clear — internal team members. The app was designed with them in mind and included unique functionality that will help improve facility management. Without a clear

understanding of who your audience is, your app may end up trying to do too much and, as a byproduct, not do anything very well.

Finally, decide what success looks like. This can be any number of things, including the number of downloads, a reduction in the number of tickets submitted through email or online portals, or a decline in the amount of time it takes for an issue to be resolved. It is important to understand the standards by which you plan to measure success regardless of what metrics you determine will qualify that success.

#### Professional partners and best practices

For facility maintenance and management organizations that have made the decision to move forward with developing an app, one of the first and most important decisions that needs to be made is identifying and selecting the right app development partner. There are a number of factors to consider during the selection process, but perhaps the most critical is finding candidates that have relevant experience in the industry.

Ideally, you want to work with a developer who has demonstrated that they are capable of delivering the features and functionality that you require. Check references and past work carefully. Prioritize candidates who engage with your business and ask direct and informed questions about your professional objectives. This is not the time to fall for a practiced sales pitch. The development process can be lengthy and require a great deal of back and forth, and a trusted partner who can communicate clearly and consistently is an enormous asset.

Once a development partner has been selected, more detailed design and development work can proceed. The first step in that process is to carefully examine your goals and objectives.

Before any app design or development work is performed, businesses need to answer some important questions: What do you want your app to do on a day-to-day basis? How will the app make it possible to improve your operations and achieve your business goals? What features are essential/ non-negotiable?



From technical details to functionality specifics and aesthetic nuances, virtually every aspect of your app will contribute to the user experience and maintenance/ service outcomes. A poorly designed app will fail to achieve your objectives and potentially even represent a waste of resources.

Your app represents a significant investment (custom single-platform apps for iOS or Android can potentially exceed six figures), and the need to make the most out of that investment should guide your decision making throughout the design and development process.

One such decision will be whether your app is designed as a native or Web/hybrid app. Native apps are typically more expensive, but are traditionally more reliable, less buggy and offer users a better "feel" during their interaction with the app.

Hybrid/Web apps are generally more cost effective, and this type of coding fosters a single code for technical professionals to keep track of and maintain, but these apps tend to be slower, more rudimentary and have trouble scaling. Perhaps most worrying is that if Google or Apple releases an update, there is no guarantee a Web/hybrid app will even launch on the updated platform.

That is why establishing a clearly defined budget is an important part of the app development process. In some cases, budgetary constraints can require companies to make some difficult decisions about app features and design elements.

Generally speaking, it is preferable to develop an app that does a few things well rather than possess a larger number of bells and whistles that are buggy or unreliable. Fortunately, facility management apps are generally designed along precisely those lines: simplicity, reliability and ease of use should be baked into the design and functionality of your app.

Finally, be patient and realistic about not only the resources required to get your app up and running, but also the time that will be required to complete the design and development process and get a working app off the ground (several months is typical).

Proceed with cautious deliberation, avoiding costly mistakes and false starts. Remember to budget additional time and funding for any refinements and adjustments that will need to be made once user feedback begins rolling in. Future tech updates and updated versions of the app will almost certainly be required to ensure that your app evolves along with your firm and is capable of meeting the emerging demands of rapidly changing marketplace. FMJ



Dan Ward serves as co-founder of Detroit Labs, a Detroit, Michigan, USA-based mobile development company and maker of iPhone, iPad, Android and vehicle apps. The firm has partnered with U.S. brands like Domino's Pizza, General Motors, DTE Energy and Hyundai to dream up,

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