Focus on the Moment

Mindlessly missing what is happening in the present drains one’s sense of well-being and happiness, undermines effectiveness, and increases the risk of accidents. Fortunately, there is an antidote within our reach.

By Catherine Rocky, SWE Editorial Board

As engineers, we often live fast-paced lives with considerable personal and work-related tasks and information competing for our attention. Often our minds are so full that we lose focus on the task at hand, and find ourselves driving to work or school on “automatic pilot” with no recall of getting there, failing to understand what we just read, or having no idea what someone just said to us. We are mindlessly missing what is happening at a given moment.

Research on being present in the moment and its effects has increased significantly since the late 1970s when the term “mindfulness” was used to describe the mode of being attentive and aware. An article by Amishi P. Jha, Ph.D., in Scientific American Mind, March/April 2013, describes the many ways mindfulness can be beneficial to your health and happiness, and how she believes it works. In addition, the University of California, Irvine (UC Irvine) has implemented a program to incorporate mindfulness practices into a safety-training program to increase attentiveness and reduce injuries.

The distracted mind

Much has been written about the lack of focus, attention, and awareness, especially related to the use of social media. In the recent NPR tribute to the late Clifford Nass, Ph.D., sociologist and Stanford University professor, it was said that he noticed how many hours in a day we overlay media experiences, trying to do two or more things at once. We have become more inattentive and distracted...

While walking to the Baltimore Convention Center to register for WE13, I was engaged in both the task of walking and trying to find the correct entrance. Staying close to the building, I crossed a one-way street away from the signaled crosswalk. I glanced but didn’t realize the oncoming traffic was quickly headed my way and just missed the bus that sped behind me — and I wasn’t even on my cellphone! My mind was focused on conference registration and not on the immediate task of crossing the street. This example illustrates a distracted mind, the opposite of a “mindful” one.

Mindfulness is about being engaged in the present moment, without evaluating or reacting emotionally.

Mindful health and happiness

Meditation is a means to mindfulness and has been practiced in one form or another in the East for centuries, with increasing focus in the West since the 1970s. I first learned about mindfulness training after reading about pioneering biologist Jon Kabat-Zinn, Ph.D., author of Wherever You Go, There You Are: Mindfulness Meditation In Everyday Life. He created the popular “Mindfulness-Based Stress Reduction (MBSR)” program, and opened a stress management clinic at the University of Massachusetts, figuring no one would come if he used the term “meditation.”

Dr. Kabat-Zinn stated meditation is simplicity itself, about stopping and being present, and shifting into “being mode.” It is a way to get more in touch with your self through a systematic process of self-observation, self-inquiry, and mindful action, something most engineers may not find comes easily. Can you stop, even for a moment? He states the best way to capture the moment is to pay attention and accept the present moment, which doesn’t mean resigning to what is happening. The goal is acknowledgment that “what is happening is happening.” What you choose to do next can be a result of understanding the moment. Paying attention to the moment cultivates mindfulness.

According to Dr. Jha, over the past decade MBSR has been proven via research to treat many illnesses, social stressors, and psychological issues, including depression, chronic pain, loneliness, and...
job-related burnout. As late as 2007, she and others in the field of cognitive neuroscience hadn’t commented about the practice of mindfulness and the effect on the brain. As stated in Scientific American Mind, Dr. Jha reveals through her research and the work of others, they understand the surprising mechanism for how mindfulness training works: “strengthening the brain’s ability to pay attention, at least in part.”

Additional benefits of mindfulness training that have been identified include sharpening of focus, improved mood, and better working memory capacity (think of a giant whiteboard). I believe those benefits are especially pertinent to the demands engineers face in work and school every day.

**Mindful safety at work and school**

Repetitive tasks performed day after day can become routine and result in a loss of focus, increasing the possibility of accidents. Recognizing the workplace hazards present on its campus, the University of California, Irvine (UC Irvine) collaborated with the Susan Samueli Center for Integrative Medicine, which was already utilizing mindfulness as part of stress reduction work.

The result has been the development of the Mindful Health & Safety program, with the goal of addressing work-related illnesses, injuries, errors, and costs that are caused by being inattentive or distracted. Understanding that inattention was a top reason for safety accidents, and realizing “staying in the moment” was not addressed in their safety training, they sought to explore this area of training. As a result, “Safety Management and Metrics, Including Mindfulness” is one of many initiatives University of California Environmental Health and Safety has created as a “Center of Excellence.”

Many companies implementing or revisiting their safety programs can build more employee safety awareness and involvement using nontraditional safety education. It serves both the person and the organization, resulting in increased sense of well-being, productivity, job satisfaction, and retention, along with the economic implications for an ill or injured employee.

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**UC Irvine: “Mindful Health & Safety” Update**

The Mindful Health & Safety initiative at the University of California, Irvine (UC Irvine) is making progress on training research utilizing mindfulness techniques as a means to improve safety. Jessica Drew de Paz, Psy.D., is a clinical psychologist who joined the UC Irvine Environmental Health & Safety program to bring new ideas to training staff, typically handled by technical professionals.

At a staff meeting in 2010, data was presented on why injuries occur, indicating that 70 percent of the time they were due to inattention or distraction. While contemplating this, Dr. Drew de Paz thought of all 60 safety programs she had reviewed, how only a few tell people to “pay attention,” and even these do not include instruction on how to do so. At that moment, she realized that the field of safety could benefit from advancements in health care. Mindfulness programs, which have gained significant momentum in medicine and psychology as evidence has mounted over the past 30 years, are essentially attention training that teach people how to be in the moment.

Dr. Jon Kabat-Zinn’s eight-week Mindfulness-Based Stress Reduction (MBSR) program, developed in 1979 at the University of Massachusetts Medical School, propelled mindfulness into mainstream society. Using MBSR as her foundation, Dr. Drew de Paz adapted the curriculum to address safety. She noted that as a society, many of us operate in fight or flight mode. The “present” moment gets squeezed out as our minds are filled with ruminations about the past or anxiety about the future. She asked, if you compare one person with a stressed, wandering mind to another who is focused on the moment, which one is more likely to suffer an injury?

Recent neuroimaging studies suggest that participation in MBSR significantly alters intrinsic functional connectivity through a more consistent attentional focus and enhanced sensory processing (Kilpatrick et al., 2011).

In collaboration with UC Irvine’s Susan Samueli Center for Integrative Medicine, Dr. Drew de Paz recently completed a pre-pilot of the Mindful Health & Safety training program with her staff of 20 and received positive feedback. One participant commented: “You’re in the middle of a project, things aren’t going great, and your mind starts racing with all of the ‘what ifs.’ I used to think that was helpful to plan for the future and have contingencies in place. But sometimes it’s unproductive. Be aware that you’re too far out, and get under control.”

Another participant commented: “This helps make you more productive, and it also helps us in our personal lives, to enjoy some of those good moments, be healthier, be good to yourself.”

The next stage of the program, starting January 2014, involves recruiting nursing staff with a goal of 100 to 200 participants. Participants will be randomly assigned to either the Mindful Health & Safety program or the active control, health education program. The research measures include before and after computerized attention tests, as well as measures of stress, injuries, errors, and costs. The growing body of mindfulness research already supports the likelihood that participants in the mindfulness program will improve their attention, health, and well-being. UC Irvine is the first to study whether mindfulness will also improve employee safety records and associated costs.

Finding focus: mindfulness exercises

Dr. Kabat-Zinn holds that you have to be ready and at the right time in your life to realize meditation will help you listen to your own voice, get unstuck, and find some much-needed calm. He says it is best to meditate without advertising it. When you feel the need to share your experiences, you are thinking too much and need to meditate more. As engineers we are trained to think, so this activity can be a challenge.

There are two types of attention that benefit from mindfulness exercise according to Dr. Jha: concentrative focus, which narrows your attention (tied to breathing); and receptive or open-monitoring practices, a broader awareness of your surroundings and associated sensations (such as the sound of a train as it gets closer, then pulls away). Learning to focus your attention should be an important part of your career toolbox. It does not require any special location, posture, or equipment, and can be utilized anywhere you can close your eyes safely.

Learning to focus your attention should be an important part of your career toolbox. It does not require any special location, posture, or equipment, and can be utilized anywhere you can close your eyes safely. Following is one example of a mindfulness technique.

Resetting your focus: Set aside 10 to 15 minutes. Sit upright, with your hands resting on your thighs. Close or lower your eyes. Simply breathe, but follow how it impacts your body, and focus on one area. When your mind starts to wander, which it will, as you have a thousand other things going on, go back to focusing on your breath. After about five to 10 minutes, change to monitoring and notice your surroundings — sounds, temperature, airflow — and let your thoughts float through the sky that is your mind. After another five minutes, open your eyes, refreshed.

Set aside some time each day to focus on the moment, and you may live a happier, healthier, and safer life.

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