Human Excellence in the Smart Machine Age

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The Power of Human Emotions

By Edward D. Hess

As a society, as a world, and as individuals are on the leading edge of a transformation that will likely be as challenging and transformative for us as the Industrial Revolution was for our ancestors. The Smart Machine Age (SMA) will fundamentally change the availability and nature of human work and make obsolete the Industrial Revolution model of business organization and leadership. Business excellence in the SMA will be driven by technological and human excellence rather than by human scale and efficiency.

The Old World Model
Under the Industrial Revolution model, human beings served as resources, tools, and units of production and were used to perform certain tasks in a standardized manner. Humans were trained to be machine-like. Leadership and management models were designed to command, control, and direct those workers. Good managers were bosses who extracted the best results out of workers. Leaders were to be obeyed and followed "or else." Cultures of compliance and fear were prevalent. Ultimately, that business model revolved to where employees agreed to those conditions in exchange for a good retirement cheque.

In the years after World War II, in some areas of the world, a more positive, humane approach to employment began to appear. That led to the development of high employee engagement models of leading and decades of productivity gains being equitably distributed among workers. In recent history, however, in many cases that humane and equitable approach has receded. We have seen the decoupling of productivity and gain-sharing and, for large numbers of people, the replacement of full-time employment opportunities with piecemeal work in the form of independent contracting, freelancing, or what is now called the "gig economy."

We are on the leading-edge of the next big work transformation in which it is quite likely that technology will take over more and more jobs, including those in the professions. Human beings will only be needed to do the types of tasks that technology cannot do well. This will be a staggering challenge for the world and society impacting hundreds of millions of jobs globally.

The Smart Machine Age Model
In the SMA, human work will be limited to the hard tasks of complex critical, creative, and innovative thinking; emotionally engaging with other humans to meet their needs; and real-time problem solving that requires complex physical dexterity. Most organizations will be staffed by some combination of smart robots, artificial intelligence systems, and humans. Humans will complement the technology and vice versa. This organizational model will differ from the Industrial Revolution model in three aspects: (1) efficiency and scale will no longer be sufficient because organizations will have to be agile, adaptive learning organizations; (2) the command-and-control leadership model that worked in the Industrial Revolution will inhibit the highest levels of human performance, requiring a whole new approach to leadership; and (3) the work environment necessary to enable the highest levels of human excellence will be an environment based upon three psychological principles: Positivity, Self-Determination Theory, and Psychological Safety.

In the SMA, innovation and organizational adaptation will become necessary capabilities, and both of those require continuous iterative learning by smart machines and human beings. An organization’s competitive advantage from a human perspective will depend on how well its humans overcome their humanness—their natural proclivities to be confirmation-based, emotionally defensive thinkers whose thinking and abilities to effectively work in teams are sub-optimized by ego and fears. Under what conditions do humans learn best? The answer to that question is not found in strategy or finance books nor in classical economics or in efficiency studies. A large part of the answer is found in psychology—the psychology of adult learning, cognition, emotions, and motivation.

If your business requires continuous iterative human learning and innovation, then a model of leading, managing, and training humans to be predictable, reliable machine-like production units will not produce the optimal desired results.
Technology advances will require humans to continuously evolve and develop their thinking and emotional skills at a pace much faster than most of us are used to.

Industrial Revolution
Efficiency-centric
Repetition
Command, control, direct
Follow me
I win
Power
Social Darwinism
Hierarchy
Individuals
Transactional
Culture of fear
Competition
Big Me

Smart Machine Age
People-centric
Iterative learning
Invite and engage
Join with me
We win
Meaning
Social Maslowism
Team
Team
Relational
Psychological Safety
Collaboration
We

Technology advances will require humans to continuously evolve and develop their thinking and emotional skills at a pace much faster than most of us are used to. To attract, develop, and retain the best human talent—an organization must be designed using the science of adult learning to create the type of environment that enables and promotes mindsets and behaviors that optimize learning and discourages those mindsets and behaviors that sub-optimize learning.

It’s All About Emotions: How We Feel
Learning is both a cognitive and an emotional process. Most businesses have analytical thinking processes and innovation thinking processes. Those processes are necessary, but not sufficient. What has not been emphasized enough in most organizations is the emotional parts of effective learning—the emotional parts of critical thinking, creativity, innovation, collaborating, and engaging with other humans. In the Smart, optimal human performance will require high emotional competencies, including emotional intelligence and the abilities to manage one’s ego and fears and emotionally connect with and relate to others.

What kind of work environment enables those results? Decades of research in psychology, organizational behavior, and leadership strongly suggest the answer: Humans are more likely to consistently excel if they work in an environment that cultivates Positivity, meets their innate needs for Self-Determination, and provides Psychological Safety.

The Power of Positive Emotions
Leading research by cognitive, social, and positive psychologists including Barbara Fredrickson and Alice Isen has produced strong evidence that positive emotions enable and enhance cognitive processing, innovative thinking, and creativity and lead to better judgments and decision making. Research has also shown that negative emotions—especially fear and anxiety—have the opposite effect. Fears and anxiety in the workplace can take many forms, including fears of looking bad, speaking up, making mistakes, losing your job, or not being liked.

All of us are insecure and fearful to a certain extent and in certain situations. We want to be liked. We want to be accepted by the team. We want to fit in. The differences are just a matter of degree and how we handle them. The work environment must be designed to reduce fears, insecurities, and other negative emotions.

Our Needs for Self-Determination
Self-Determination Theory (SDT) is the work of psychologists Edward L. Deci and Richard Ryan. It is one of the most well-known theories of human motivation. According to SDT, intrinsic motivation—the tendency to seek out new and challenging situations in order to learn—is enhanced when three innate human needs are met: autonomy, relatedness, and competence.

What does it mean to create an environment that satisfies the innate human need for autonomy? It does not mean simply providing independence. Nor is it merely a lack of micromanagement or giving people a superficial sense of control over their daily job tasks. It requires giving people the opportunity to be heard and have input and choice by engaging them in making meaning of what they are doing. It means providing people with a feeling of being respected and cared about as unique individuals as opposed to feeling like cogs in a wheel.

A recent company-wide research project at Facebook evidenced the importance of this. In 2016, Facebook disclosed the findings of a study of its highest performing teams. The purpose was to learn what the managers did to get that high performance. The number one finding was that high-performance managers at Facebook cared about their team members as individuals.
The second part of SDT—relatedness—is provided through having meaningful close personal relationships at work. That requires an organization to create the opportunities for people to connect, relate, and build trust with others at work. It means allocating time and designing work environments that bring people together to connect and relate about non-work matters. Building meaningful relationships at work takes time and involves more than just doing the work.

The third innate psychological need according to SDT is to be effective and to utilize our capabilities to their fullest. I call this helping people to be all they can be. That requires a manager or leader to take the time to really get to know a person—their strengths, weaknesses, and goals—as well as to help them get the right training or opportunities to develop themselves.

Psychological Safety
As renowned humanistic psychologist Abraham Maslow stated, a person "reaches out to the environment in wonder and interest, and expresses whatever skills he has, to the extent that he is not crippled by fear, to the extent that he feels safe enough to dare."[2]

That is what Psychological Safety is all about: feeling safe enough to have the courage to try, to speak up, to challenge the status quo, to disagree with a higher ranking person, etc. Without Psychological Safety people will not fully embrace the hard parts of thinking and innovating. And those hard parts are: the giving and receiving of constructive feedback, asking and being asked the hard questions; being non-defensive, open-minded, and intellectually courageous, and having the courage to try new things and fail. Harvard Business School professor Amy Edmondson has conducted some of the best research on Psychological Safety and found that it is an essential element of organizational and individual learning.

Feeling psychologically safe is feeling safe from retribution, which could be social ostracism, being passed over for good assignments, having bonuses or raises reduced, or even being transferred out of the team or fired on trumped-up charges. Psychologically safe environments have cultures of candor: permission to speak freely, and permission to make learning mistakes (within financial risk parameters), and they offer all employees a voice by devaluing elitism, hierarchy, and rank (other than with respect to compensation).