ADAPTIVE INTELLIGENCE IN BUSINESS: THE NEXT LEVEL OF ORGANIZATIONAL SUSTAINMENT

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Abstract

The concept of intelligence, as many prior researchers have suggested, is primarily tied to biological and cultural effectors. Intelligence refers to intellectual functioning. Organizations with specificity to those individuals within the ecosystem need to recognize and stand guard to support the notion of adaptability. In this sense, the workforce can have the ability to move to more efficient and effective actions to drive higher performance. Learning to be flexible and work in an open, cohesive manner is a means to adaptive intelligence. In fact, adopting a “look, listen and learn” mentality enables individuals within an organization to adapt to changing environment real-time. Both adoption of novel approaches as well as adaptability to these approaches and development of a certain skill sets are both critical success factors in the drive to transformative organizational change. Learning by doing provides experience to employ in situations that may require adaption along with the ability to shape a particular environment. Adaptive intelligence at the micro-level and within a business setting provides organizations with the opportunity to have an engaged workforce who can continually deliver exceptional and collaborative performance for the greater good. Focusing on the individual mindset, organizations can build best in class teams who can adapt to the changing demands of the marketplace. Employ skills that are practical, agile and can be socialized are hallmarks of adaptive intelligence. A blend of IQ and emotional intelligence creates a soundness to an organization’s well-being and sustainability. Elements of critical thinking, as well as group think to synergize broad ideas and lastly, creativity all can be identified as rudiments within adaptive intelligence. Harnessing this phenomenon can provide organizations with a strong and clear path to greatness. The purpose of this article is to build upon the extraordinary prior work, especially of Robert Sternberg, and study the phenomena of adaptive intelligence within the context of business organizational ecosystems.

Keywords

Adaptive Intelligence; Social Intelligence, Sustainability; Organizational Systems; Emotional Intelligence

JEL Codes: L1, M1

INTRODUCTION

In today’s business organizations there is an existence of immense challenge both at the individual and the organizational level. Attraction of new team members, development of training to enhance skills, remote work “requirements” among some workers, retention and employee engagement initiatives all contribute to a sound and functioning organization. Ubiquitous learning – nurturing personal and common knowledge is swiftly becoming a key success factor in creating and sustaining an agile organization system. Leadership must build adaptability as one of their own core competencies – efficient learning and scenario-based, elastic knowledge building. Business has a plethora of internal and external demands placed on it. Research has shown adaptability to be a vital imperative for transformative and sustainable change. Whether its turnover, slumping sales or ineffective marketing all contribute to an organizational strife and in some cases, peril. Sustainment is any endeavor must be the direct result of leadership vision and mission coupled with the ability to create and drive adaptable and agile skills. In an August 2021 article, McKinsey & Co. put forth, “adaptability muscle” in describing the importance of bouncing back from adversity. In a similar theme, adaptability is also predicated on “memory” in that remembering what got us to a certain place must be well-understood in order to set the direction for future scenario analyses, transformation preparation and measured steps to success.
Adaptability is crucial at two distinct levels—individual and ecosystem. Being able to adapt to fit a particular business environment provides energy and focus. For example, we need not look to far and see that businesses can readily go to non-domestic regions and have success. Starbucks in China, Caterpillar in India, Uniqlo in United States, and Fiat in South America. Conversely, being able to change the environment provides long-lasting positive effects on the business’ sustainability. A meaningful amount of today’s athletic consumer products businesses has transformed an initial target market i.e., work out clothing and reposition the same brand with new offerings into adjacent markets such as golf and tennis. Under Armor is an example of how this has been done with remarkable success. Moreover, businesses that can actually find or create new environments have an increased opportunity for sustainment and growth in new markets and with new products/services. A recent example is the move of the Amazon “juggernaut” to now have its own sub-branded products (i.e., Blink) available in retail locations.

Moreover, as we look to grow our revenues, we go through selections of new markets to pursue. For instance, our company does not service European consumers due to the products currently offered. Can we make some design and functionality changes that would create opportunities for consumer demand in Germany and Spain? Technology can also play a key role on the formation of work communities, sustainment and fostering change. Whether the organization chooses added information technology implementation or adopts new approaches to information systems management both can provide opportunities to have work teams become more efficient, effective, and agile given the nuances of the improved state of the back-office tools. Being intelligent in the application and execution of these so-called systems is undoubtedly vital to successful business outcomes. In fact, adaptive intelligence can be viewed as an intersection of social psychology, intelligence quotient (IQ) and emotional intelligence. Goleman and Boyatzis (2008) point to ‘social circuitry’ as a means to facilitate change in behavior. Adapting approaches, ways of interacting with others and defining boundaries all are nascent in the realm of intelligence development. Continuing, those leaders that are able to proficiently adapt to changing scenarios and stressors are deemed “socially smarter” and therefore are looked to for driving improved performances of individuals and the enterprise as a whole.

Another often assumed set of necessary leadership skills focuses on communication. A renewed approach is centered on look – listen – learn. Frankly, the order of these actions is crucial to follow to maximize desired positive outcomes. In concert, adaptive intelligence aligns well with the phrase “seeking to understand before you are understood”. In this vein, leadership in specific is accountable to the organization, Fioravante (2021) states, “the leader is endowed to protect and nurture those who seemingly are in distress – educate, train and empower”. The crux of the matter centers on leaders recognizing the potential in the team members and spend the requisite time in the development of skills – both interpersonal and specific core elements such as analysis, critical thinking, and the like all to reach high-performing levels. “Intellectual capacity” of employees is an essential building block of their ability and capability to rise to new levels of output and contribution to the organization’s success. Along these lines, the American Association on Intellectual and Development Disabilities (AAIDD) provides definitions to add value to this discussion. Sternberg (2019) purports a term. “Practical intelligence” which he states is closely aligned to adaptive intelligence (p.11). According to AAIDD, intellectual functioning—also called intelligence—refers to general mental capacity, such as learning, reasoning, problem solving, …”. Continuing, adaptive behavior is the compilation of conceptual, social, and practical skills that are learned and conducted every day. Assimilating into a business setting, organizations need to have a broadness of intelligence throughout.

Over the years of civilization, human societies have exhibited ways of adaptation to varying environments. In business context this is no different. A key within organizations, which are inherently comprised of individuals who bring differing biases, unique experiences and distinct perspectives is the need to have a collective, collaborative adaptation. In not done in unison, the organization cannot have sustained success – everyone must adapt to achieve the greater sum of the parts. Another important consideration is resilience and the relationship to intelligence. Emotional flexibility is a concept that provides insight into how individuals can adapt to changes in the environment in which they reside and work. Receptiveness and openness to change reside squarely with the individual’s mentality, psychological competences, and ability to see the need to adapt to improve the situation.

LITERATURE REVIEW

It might not need to be noted; however, Charles Spearman (1904) has been extremely influential in the study of intelligence. His work is anchored on the general ability of and how intelligence is pervasive throughout all tasks performed by [business] individuals and the notion of “function” in understanding elements of intelligence. Function in this sense is how individuals develop uniformities to think rationally, develop sound reasoning, solve problems and setting plans in motion. Spearman (1927) put forth, Intelligence is a practical concept connoting a group of complex processes traditionally defined in systematic psychologies as sensation, perception, association, memory, imagination, discrimination, judgment and lastly, reasoning. Each of these influence decision-taking, actions and outcomes of the sum. There is a myriad of studies and research suppositions that focus on intelligence, biological adaption, social psychology, neuroscience, and cultural influence. Each area of study has provided in –

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depth analysis of the fit to adaptive intelligence. In addition, all the prior work has afforded us the opportunity to reflect on the inputs and outputs of each as contribution to the phenomena of adaptive intelligence with a business framework. For example, Sternberg (2019) suggests “intelligence is relevant only to individual adaptation” (p.9) in terms reactions to his/her own environments. Others similarly point out the power of the brain and its role in adaptive intelligence. The brain is a machine that has cognitive biases developed over time as well as the processing power to seek patterns and form “shortcuts” as a means to assessing situational context. These so-called shortcuts enable us to quickly apply lessons-learned, if effectively and efficiently indoctrinated, to a current or emerging situation and thusly, prepare ourselves and organization appropriately for what is to come.

Sternberg (2019) further supposed that the human brain can actually shape and choose environments that allow for alignment to biases and necessitate adaptation to ensure understanding within each setting – personal and professional to choose two. Lin and Zhou (2016) looked at adaptability and life satisfaction. The study brough to the forefront the importance of adaptability in striking balance between ones’ personal physical and psychological wellness and meeting the demands of the workplace. In this vein, adaptive intelligence can provide for harmony and allow for clearer thinking, collegiality amongst those in the context and bring about positive change. A key element here is the role of self-awareness as a critical element in allowing an individual and importantly, the broader organization to embrace the power of adaptability as a means to a better outcome. Closely aligned is the human brain’s ability to reflect which prepares for understanding the history of a given situation and make continuous improvements to address future challenges and opportunities.

As history has shown, we as humans have the distinct ability to influence environments in which we participate and to assess selective environment in which to target for future endeavors. This fits neatly in a business-setting in that as businesspeople, we can influence decisions by providing particular value propositions that endear our firm to our customers and all stakeholders. The skillfulness of this provision is showcased in how the organization is able to clearly put forth a plan that will meet the demands of the consumer while balancing with the needs of the organization [the marketer] Continuing this path of discussion, Sternberg (2019) purported when referencing “skills is that they involve adaptation to the environment” and went on to state, adaptive intelligence – intelligence that is used in order to serve the purpose of biological adaptation (p.2). Similarly, Sternberg (2012) states, “Intelligence is one’s ability to learn…” (p.19). Learning by doing provides one the experience to employ in situations that may require adaption along with the ability to shape a particular environment. Therefore, it can be reasoned that individuals and the organizational whole must be proficient in the critical thinking, cultural sensitivities, and execution to drive superior outcomes.

Haier (2016) indicated cultural influence on intelligence is manifested in many ways and as such should be taken into consideration as part of a broader relationship discussion. Noteworthy here is the importance of due care with all stakeholders during any transformations, adoptions, or adaptions in the organization’s lifecycle. Of special note is the advent of how leaders must remain cognizant of how they must transform their own adaptability as the total enterprise moves to an ecosystem of innovation and adaptiveness. Through influence and shared vision, leaders provide a sense of “psychological safety” for those within the organization. Adaptive Intelligence can be fostered more readily when those in the organization are clear on the reasons to change, are comfortable with the path and ready to adapt/adopt to improve performance outcomes. A key element of success is squarely dependent on being able to achieve scalability of adaptiveness. Those organizations that are most successful in adaptive environment building recognize the importance creating ‘learning communities’ which are derived by engagement and shared goals. In addition, individuals within must be offered opportunities to gain experience from mentors, be given mechanisms to learn by doing and provided continual feedback to build the adaptive intelligence competency over time.

Sternberg (2003) proposed a “triarchic theory” of human intelligence which is a composite of three sets of skills: creative, analytical, and practical. A subsequent version introduces wisdom-based skills as well. According to this schema, intelligence at the individual level is based on achieving certain self-prescribed life’s goals resulting in “cultural context”; leveraging expertise and lessons learned from experiences to influence future scenarios and optimizing other fundamental business skills. As presented, the fundamental business-oriented skills need to center on 1) creative and innovative approaches to strategies and tactical initiatives 2) analytical [critical thinking] skills to vet out ideas to maximize the benefit 3) the all-important practical skills required to influence and instrument the pool of ideas towards value creations and lastly, 4) the wisdom-based skills which will manifest in helping to achieve the intended purpose of the ideas in an ethical manner. All these identified behaviors and skills are linked to the notion of adaptive intelligence. In clarification, individuals within an organization can have a positive impact by assimilating the three triarchic skills into an action-orientation thus creating accretive value for the enterprise. A word of caution – there also may be negative impacts if the implementation is not executed with due care, or lacking scenario analyses, and similarly, ignoring effective and efficient communication among the key constituents.

A bit of positive [social] psychology goes a long way in collaboration efforts especially when transforming an organization to reach higher levels of performance. Gardner (1983) moved to a multiple approach as the traditional unitary notion of intelligence had been outgrown when applying to new age thinking within business
An additional seminal theory is centered on two distinct types of intelligence. Cantell (1987) put forth “Fluid intelligence” and “Crystallized intelligence. Fluid-type points to the cognitive aptitude to analyze, implore logic-based reasoning and solve problems using pattern recognition and applying logic. Instead, we are using logic, pattern recognition, and abstract thinking to solve recent problems. For instance, individuals in an organization that are able to make lateral careers moves (i.e., from engineering to sales) would rely on fluidity to think more pragmatically and with flexibility given skills developed in one discipline to another – in this case engineering to sales. On the other hand, “Crystallized intelligence” denotes the acquired knowledge gained through experience and education, both informal and formal (i.e., academic-based). This intelligence reference has a direct correlation to adaptive intelligence in that within crystallized, knowledge is acquired and enhanced based on adaptation to life’s experiences and exposure to the environment. An example here is to look at the manufacturing of a particular product for one industry, say automotive and now the firm wishes to transfer the product [in some form] to the healthcare products sector. The organization would depend on the experiences learned in producing the product for its automotive customers (tolerances, pricing, testing, etc.) to confidently provide like-product to the new target market – Healthcare. Understanding specific customer and industry standards as well as good manufacturing processes will be applied to ensure success. A closely related concept is Gardner’s theory of multiple intelligences. He suggested that intelligence is not necessarily unitary and instead stated there are multiple forms. Each of these forms a taxonomy of sorts in which each play a role in organizational systems, interpersonal relationships, individual impact to success, risk mitigation, problem solving and communication.

There has been a continued focus of researchers to discover and put forth varying degrees of intelligence models that encompass psychological influences and the effect on intelligence. Of pointed interest and application within this research, Ryff (1989) created an aspect model of positive psychology which consists of six domains: 1) Self-Acceptance 2) Positive Relations with Others 3) Autonomy 4) Environmental Mastery 5) Purpose in Life and 6) Personal Growth. Researching the various terms put forth, there is an appearance of linear alignment with the phenomena of adaptive intelligence. First, self-acceptance relates to the multiple aspects of one’s experiences and social psychology that supports decision taking and forms a mirror upon the individual. Positive relations with others, whether internal or external to the organization must be of utmost significance. Relationships create opportunities to group think and to drive for a more productive and positive outcomes within a business setting. In a 2021 McKinsey & Co. article, the authors expounded on building adaptability and strengthening relationships as essential benefits to organizations success. Adaptive intelligence therefore is evidenced in the manner in which individuals must adapt to relationships in an evolutionary or phased approach. For example, in a business group setting, team members whether specific or randomly selected must learn to appreciate all perspectives and work to understand biases of others. As situations are presented, each team member will make subtle or significant adaptations for the betterment of the team. (Stürmer, Snyder, Kropp, Siem 2006). In this manner, the organization can assess required changes to operating systems, financial requirements and even, customer needs to maintain some level of normality.

Next up is autonomy and fit to adaptive intelligence. Ryff (1989) addresses this in the capacity to manage complex conditions or situations in different contexts to align with one’s own psychosocial requirements and value system. In this sense, businesspeople bring to the organization their own needs, wants and desires as well as a frame or lens by which they measure and see situations. Adaptive intelligence (AI) provides a methodology to assess and modify learning from and teaching others in the ecosystem. Adaptive intelligence in that within crystallized, knowledge is acquired and enhanced based on adaptation to life’s experiences and exposure to the environment. An example here is to look at the manufacturing of a particular product for one industry, say automotive and now the firm wishes to transfer the product [in some form] to the healthcare products sector. The organization would depend on the experiences learned in producing the product for its automotive customers (tolerances, pricing, testing, etc.) to confidently provide like-product to the new target market – Healthcare. Understa...
RESEARCH METHODOLOGY

There is an assemblance of theories that frame the phenomenon of intelligence. Prominent is the review is the notion of "psychometrics". In the construct, intelligence equates to “The art of imposing measurement and number upon operations of the mind” (Galton, 1879, p.149). Another definition could be looking as intelligence as a “process roadmap” that is distinct to each of us who have experienced difference, built expertise, and formed our own perspectives and associated biases.

A ten-question survey was developed and distributed to the fifteen participant respondents. Each participant was provided an overview of the survey and importantly a brief synopsis of the term adaptive intelligence that mirrored the abstract of this article. The researcher chose this to educate and, in an attempt, to level the understanding of the various terms used throughout the study. In addition, the unbiased survey, interviews were performed after the results were gathered. The researcher discovered themes while reviewing the gathered data as well as during the one-on-one, face-to-face interviews.

RESEARCH RESULTS

The ten-question survey posed some admirable results and provided solid data to draw conclusions and also to prepare for future research. As shown in Appendix A, the respondents overwhelmingly expressed the term ‘adaptive intelligence’ resonated with them. The suggestion here is that individuals can understand the term in its parts and in whole as the term is not new; however, generally so in business settings. Of most note in the data, 100% of the respondents believe a business culture must contain some level of adaptability to remain sustainable. In the face-to-face interviews, many participants suggested that individuals must be willing to adapt in support of the organization’s business model. Similarly, all of the participants supported the notion of 'emotional flexibility' [note: not defined in the survey. However, this term was discussed at length during the interviews]. One comment noted was, “flexibility and capability to react to adaptive thinking is critical to support change”. Continuing, another stated, “there should be a caution of ‘intelligence and intellectual’ – these are not the same”.

One pointed question in the survey focused on creating environments. 93% of the respondents agreed that businesses that find or create new environments have an increased opportunity for growth. During the follow-on interviews, the concept of ‘new environments’ was discussed in greater detail to explore any themes that might emerge. There seemed to be a common thought across the interviewees that businesses construct organizational ‘environments’ to suit the ecosystem in which they exist. It was added by several, that approaches to change must include inertia and momentum. Both of these seemingly provide support to business model sustainment as firms that move with purpose and speed have historically led their industry sector’s growth and longevity scale. There was a surprising result in the data, when respondents were asked, “Do you support, ‘intellectual capacity’ of employees is a building block of a firm’s success?” and 27% responded, no. This was then further explored during the interviews. The term 'intellectual capacity' was dissected during the interview sessions. One interviewee stated, “Employees are the lifeblood of our organization’s success” and another mentioned, “We must ensure our team members are well-equipped to succeed – as this makes us all successful. There appears to be a theme herein centered on employees as contributors; however, ‘intellectual capacity’, while discussed in the interviews did not surface as a pattern across the leaders. Closing aligned, another question posed was, “Do you believe that individuals have the ability to design a process roadmap for success?”. Only 73% of the respondents stated, yes. One interviewee stated, “At an individual level this is paramount” while another added, “Important for leaders to recognize transparency is enterprise-wide”. Organizations should pay increasing more attention to how individuals are singular and the need to understand how each person’s social psychology and ability to adapt to changing business factors affect and impact organizational outcomes.

CONCLUSIONS

Intelligence has been studied for quite some time. It has been defined, re-defined, studied and even criticized for being too. As Sternberg (2021) purported, “Intelligence, then is one of the most important traits that have allowed humans…to succeed in their environments” (p.65). As a means to deal with changing business settings effectively and efficiently, people make certain decisions in order to maximize outcomes. Adaptive intelligence is not innate and in fact is acquired as maturity occurs and learned experiences shape the basis for decision-taking. A point – adaptive intelligence is as much about problem recognition as it is about problem solving. We all want to solve presented and relevant problems to improve a current situation. However, the ability to recognize that a specific situation is fractured or sub-optimal, is a key first step and an element of adaptive intelligence. Adaptation resides in a business setting in two dimensions – at the individual level and the environment or organizational culture construct. An organization has a certain operating philosophy which sets the direction or strategy to which all of the constituents are accountable. Adaptive intelligence makes the philosophy actionable and measurable to ensure achievement of performance outcomes. Activation of tacit knowledge that occurs with speed, fluidity, and
decisiveness invariably will produce meaningful and useful outcomes. In fact, research has shown that stored knowledge vs. knowledge acquisition manifests itself on a micro and macro level within many organizations. One of the challenges in managing the activation of stored knowledge is when, how and where bias has a use or an effect in a particular situation.

When assimilating adaptive intelligence and thinking one should reflect on the relationship between them. Thinking is not linear as most research has shown. In fact, thinking is more aligned with multidimensional and multilevel. Keywords that are often considered include: wisdom, experience, expertise, creative, analytical, critical, and practical. In parallel, the micro-level intelligences identified in prior research such as, linguistic, naturalist, interpersonal and intrapersonal all can be relevant to adaptive intelligence traits. Proficiency is business setting is most prevalent through the framing of leadership and business performance outcomes. Metrics based or objectives and key results are in fashion today. Assessing an organization by the use of measurements is sine qua non and align this with adaptive intelligence is a winning combination of success.

Applying these learnings to everyday practice will take some conscientiousness and attention to desired outcomes of the organization. Each entity must make assessments of the progress along the sustainability continuum. Mid-course corrections are necessitated by changes with the ecosystem in which the organization operates. Adaptive Intelligence provides abilities at microlevels to run scenarios analyses, take tactical decisions and shift quickly to address various microcosms of the day. At a macrolevel, AI can provide senior leadership with inputs from various thought leaders within and outside of the organization to allow for a homogeneity of ideas that can be more effectively built in a strategic plan. At all levels, as previous mentioned, outcomes must be associated with measures that show a “moving of the needle” effect in terms of operational excellence, customer delight, stakeholder value creation, marketplace presence and employee experience. Adaptive Intelligence in action can be a difference maker!

Works Citation

AAIDD - https://www.aaidd.org/intellectual-disability/definition
# Appendix A

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
<th>?</th>
<th>% of Yes</th>
<th>Footnotes [Captured during interviews]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the phrase &quot;Adaptive intelligence&quot; resonate with you?</td>
<td>14</td>
<td>1</td>
<td>n/a</td>
<td>93%</td>
<td>a</td>
</tr>
<tr>
<td>Do you believe that an adaptive culture is vital for a sustainable operating model?</td>
<td>15</td>
<td>0</td>
<td>0</td>
<td>100%</td>
<td>b</td>
</tr>
<tr>
<td>Do you believe that individuals have the ability to design a process roadmap for success?</td>
<td>11</td>
<td>0</td>
<td>4</td>
<td>73%</td>
<td>c</td>
</tr>
<tr>
<td>Is self-awareness a term that synthesizes with adaptive intelligence?</td>
<td>13</td>
<td>2</td>
<td>n/a</td>
<td>87%</td>
<td>d</td>
</tr>
<tr>
<td>Businesses that find or create new environments have an increased opportunity for growth?</td>
<td>14</td>
<td>1</td>
<td>n/a</td>
<td>93%</td>
<td>e</td>
</tr>
<tr>
<td>Being intelligent and adaptive within the enterprise-wide information repository is essential?</td>
<td>12</td>
<td>0</td>
<td>3</td>
<td>80%</td>
<td>f</td>
</tr>
<tr>
<td>Adaptability is crucial at two distinct levels - individual and the greater ecosystem</td>
<td>12</td>
<td>3</td>
<td>n/a</td>
<td>80%</td>
<td>g</td>
</tr>
<tr>
<td>Do you support, &quot;Intellectual capacity&quot; of employees is a building block of an firm's success?</td>
<td>11</td>
<td>4</td>
<td>n/a</td>
<td>73%</td>
<td>h</td>
</tr>
<tr>
<td>Do you agree with, &quot;emotional flexibility&quot; as a concept to provide for greater effectiveness?</td>
<td>15</td>
<td>0</td>
<td>n/a</td>
<td>100%</td>
<td>i</td>
</tr>
<tr>
<td>Does behavior change as a result of societal norms</td>
<td>13</td>
<td>0</td>
<td>2</td>
<td>87%</td>
<td>j</td>
</tr>
</tbody>
</table>

Note: ? = Maybe answer; n/a = not available choice

**Footnotes:**

a. Yes it does, it seems to be a good thing; I like the idea of "adaptive" to be successful
b. The need for "adaptive intelligence" has been bantered about for years - its important; a business model can clearly benefit from adaptive learning and intelligence
c. At an individual level this is paramount; important for leaders to recognize transparency is enterprise-wide
d. I believe that true self-aware leaders that can adapt to situations are most successful; self-awareness is a critical factor for Adaptive intelligence (i.e., self-critique)
e. breakthrough approaches require inertia and momentum to arrive at improved outcomes
f. no comments
g. Efficiency of a leader is linked to IQ & EQ; Leaders must support organizational-wide communication
h. Employees are the lifeblood of our organization's success; we must ensure our team members are well-equipped to succeed - as this makes us all successful.
i. Flexibility and capability to react to adaptive thinking is critical to support change; There should be a caution of "intelligence" and "intellectual" - these are not the same.
Norms force new behaviors and adaption and adoption are key