

Proposing a Safety Culture That Relies on Human Intelligence

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The role of the safety culture in organizations should not be understated. In industries like manufacturing, safe working procedures are essential because employees face many risks on a day-by-day basis. The potential of workers suffering from burns, injuries, and other forms of harm has led to the development of different safety approaches over the years. Although the Safety-I and Safety-II approaches to workplace safety have been marginally effective, they tend to focus on technology at the expense of human intelligence (Nordlöf et al. 126). As a result, accidents are still commonplace. This paper offers a solution to the problem. It is recommended that companies adopt the Safety-III outlook, which focuses on the optimization of human error and the integration of safety at the front-end of operations.

The problem

Modern safety guidelines tend to focus more on what technology can do for safety rather than how human beings can minimize risks. Over the years, the role of safety in construction, aviation, manufacturing, and other affiliated industries has evolved. Scientists and safety experts have often differed on how safety should be viewed. As a result, different approaches have been adopted across industries and organizations.

Such discussions have subsequently shifted attention from safety and security, leaving processes and people at risk. Nordlöf et al. find that workers' obligations to follow safety procedures and regulations depend on the reigning culture of a given organization (126). Hence, an understanding of a company's safety standards depends on its safety culture and the role that human beings play in the process. The challenge is that there are several schools of thought regarding organizational safety and why accidents happen. According to Nordlöf et al., these are

“person as cause, a system as a cause, and system–person sequence as cause” (131). As can be expected, the lack of a standard definition of safety has not helped the situation. Accidents continue to happen today, but before a solution is offered, understanding the history of safety is vital.

A historical overview of safety

The history of safety begins with the traditional view, popularly referred to as Safety-I. In Safety-I, the focus is mainly on what could go wrong or what usually goes wrong. The traditional view measures safety depending on the lack or presence of negatives. That is, safety is low when the number of negatives is high, and vice versa. In the past, organizations used technology and other barriers to prevent a transition from normal functioning to abnormal functioning. However, significant accidents exposed an overreliance on technology. Safety experts soon learned that the human factor should not have been overlooked. It was soon acknowledged that just like machines, human beings too could be faulty.

The next era of safety was Safety-II. Unlike Safety-I, Safety-II complements the safety process by questioning popular assumptions. The latter view sees safety as the existence of positives and not the absence of negatives (Provan et al. 1). For example, according to Safety-II, employees’ capabilities and competencies can enhance overall safety. Therefore, when something goes right, safety is present.

The Safety-II outlook appreciates the value that people add to the safety process. Employees’ capabilities can be harnessed because people know how to get things done. Based on this assumption, it is evident that technology and machines simply cannot understand issues such as poor system designs, time constraints, and trade-offs. Therefore, Safety-II is proactive. The

process allows humans to anticipate future events by harnessing everyday work to cause success and limit failure. However, even with its proactive approach to safety, Safety-II has been ineffective at stopping accidents.

A new prospect

In the modern era, another safety outlook called Safety-III has arisen. Safety-III seeks to limit human error and integrate safety at the front-end of operations. According to Corrie Pitzer, the proprietor of SAFEmap International, “humans have incredible skills and capabilities and that should/could optimize the role of the human in the safety chain rather than trying to eliminate the role” (Pitzer par. 8). The safety specialist notes that people are more likely to identify systemic risks than machines. Therefore, people’s skills should be harnessed to develop better outcomes, avoid threats, and optimize response strategies.

Integrating safety measures will also create safety habits within organizations. According to Pitzer, safety is rarely discussed in any meeting’s agendas, leaving people, processes, and assets susceptible to possible threats (par. 8).

The solution

Given the uncertainties surrounding the role of safety in organizations, the best response is to enhance human intelligence in the process. Coverage of the history of safety shows that even in the presence of regulations, automation, and safety management systems, workplace accidents still happen. There are also obvious limitations inherent in Safety-I and Safety-II approaches. Therefore, the solution is to focus on the Safety-III outlook.

As outlined earlier, Safety-III focuses on how human capability can be optimized to suit workplace circumstances. The reality is that humans are not faultless. Besides, running facilities

requires human input. Without people, machines cannot operate, and technology cannot advance. Therefore, human intelligence should be prioritized ahead of artificial intelligence. The role of human intelligence should also extend to boardroom discussions. As it stands, organizations waste much time developing ineffective audits, controls, safety procedures, and risk management frameworks (Pitzer par. 11). Such efforts fail to draw attention to what matters: whether safety personnel are competent and operative. As such, there should be a deliberate focus on empowering human beings to assume risk prevention roles. Instead of substituting human intelligence with artificial intelligence, stakeholders should allow the former to become superior over the latter.

Conclusion

This paper proposes that organizations should adopt the Safety-III approach to safety. It has been found that Safety-III is superior to Safety-I and Safety-II because it optimizes human error and integrates safety at the front-end of operations. Because Safety-I focused on what could go wrong, it forced stakeholders to take a reactive approach, enhancing risk levels. Safety-II has also been ineffective because accidents continue to happen today. Therefore, the adoption of Safety-III is inevitable. Efforts should now go towards the formulation of relevant policy guidelines.

References

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