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THE INCREASING DEMAND FOR HYBRID, 'T-SHAPED' WORKERS

By Irving Wladawsky-Berger
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Across a variety of occupations and industries, many highly specialized workers are being replaced by problem-solving generalists. Higher productivity and lower costs, or doing more with less, are some of the reasons for this change. Other important reasons are the increased complexity of products and systems and the unanticipated problems that often follow.

The USS Gabrielle Giffords offers a good illustration of the important changes taking place in the U.S. Navy – and in the world of work in general. The ship was designed to operate with a crew of 40 people, the Atlantic reports in a recent article, "a far cry from the 350 aboard a World War II destroyer." That means each crew member needs to be a jack of all trades.

Due to increasingly sophisticated technologies and the high cost of personnel, the USS Gabrielle Giffords is among a new class of Navy ships that's turned away from specialists in favor of so-called hybrid sailors who are able to handle multiple tasks and rapidly acquire new skills.

The concept of hybrid or T-shaped workers was first introduced around 25 years ago as a metaphor to describe the kind of individuals sought by the Navy and many other organizations. The vertical stroke in the letter T represents a depth of skills and expertise in one or more specific fields; the horizontal bar implies broad multidisciplinary and social skills, as well as the ability to collaborate with experts across disciplines to jointly solve complex problems.

T-shaped skills are increasingly valued in the marketplace. Business schools, for example, have been emphasizing the importance of critical thinking and creative problem-solving that we generally associate with the liberal arts.

In a 2015 "Harvard Business Review" article, Ernest Wilson, then dean of the University of Southern California's Annenberg School of Communications and Journalism, wrote about his research to better understand the key competencies companies are looking for. His studies found that the traditional hard skills typically provided by engineering and business schools must be complemented with a set of so-called soft skills. Five such attributes were identified: adaptability, cultural competence, 360-degree thinking, intellectual curiosity and empathy.

Why are seemingly soft, broad skills so valued in today's business environment? What's wrong with I-shaped workers with strong individual skills? There are multiple answers to these questions. Hard skills tend to be deep but narrow. Their half-life is getting shorter. The more specific and concrete the skills, the more they are prone to be automated or significantly transformed by advanced technologies such as artificial intelligence, making it necessary for workers to be flexible enough to keep adapting to the continuing changes in the workplace.

Moreover, teamwork is increasingly important in our fast-changing, complex world. If the members of a team all have strong individual skills, it's often hard for them to collaborate,

as they may each also have strong individual points of view. Effective collaboration requires a combination of social, communications and other soft skills that I-shaped workers may not quite have but T-shaped workers do.

"Minimal manning – and the evolution of the economy more generally – requires a different kind of worker, with not only different acquired skills but different inherent abilities," according to the Atlantic article. Early on, the Navy knew that not everyone would be a suitable candidate for the kind of T-shaped, hybrid sailor they were seeking for the new generation of ships. So they commissioned studies to help them select and prepare crews.

The Navy worked with Zachary Hambrick, a psychology professor at Michigan State University, who devised a series of tests to try to understand how well naval candidates would perform in what are known as fluid-task environments. Instead of trying to identify how well a candidate has mastered fixed skills, as is generally the case with IQ and SAT tests, these tests measured a candidate's ability to flexibly shift their attention between different tasks, a skill often required to address unanticipated complex problems.

In problem-solving settings where expertise is trumped by the ability to quickly adapt to a new environment and learn new skills, fluid intelligence is paramount. In such settings, candidates who score high on otherwise positive qualities – like conscientiousness, perseverance or grit – don't do as well, because instead of adapting to the new environment, they keep tenaciously doing what they were doing. That impedes their performance.

In stable environments – such as mastering chess, tennis or piano, or getting good grades in school – "a rigid adherence to routine can no doubt serve you well," the Atlantic writes.

But today's world of work is a different matter. "Fluid, learning-intensive environments are going to require different traits than classical business environments…things like ability to learn quickly from mistakes, use of trial and error, and comfort with ambiguity," according to the article.

Work and the rules around it are increasingly fluid. We will increasingly want hybrid sailors in new ships, and T-shaped individuals in innovative, agile, continuously learning organizations.

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