

Matthew Boyer

Co-Founder and COO, Zylter



Matt Boyer the co-founder and Chief Operating Officer for Zylter based in Mountain View, CA and Raleigh, NC. Matt now works closely with executives from Fortune 500 and other leading logistics, engineering and energy companies to develop and execute their unmanned systems strategies. Matt has spent the last seven year leading strategic research, development and implementation of unmanned systems and emerging technologies for a range of military and commercial organizations.

COULD YOU PROVIDE SOME EXAMPLES OF HOW DIFFERENT INDUSTRIES WILL BE AFFECTED BY THE ONSET OF AVS?

Implementation of autonomous vehicles (AVs) will vary somewhat across and within industries based on a range of factors, to include regulatory limits, likelihood of return on investment (ROI), and ease of task automation among other factors. Industries will see three general types of organizational impacts from AVs:

Task Execution: Automation replaces or augments tasks within jobs, but rarely replaces entire jobs. Organizations adopting AVs must refine job descriptions for humans to execute remaining tasks and potentially new tasks required to support AV systems (i.e., cyber system security).

Organizational Structure: Introduction of AVs to execute key tasks will likely require redefining the organization structure to achieve efficiency gains and other benefits promised by AVs. For example, team leaders and supervisors may need to manage a greater span of control over teams human and AV hybrid teams.

Workforce: The types of knowledge, skills and abilities (KSAs) required for many personnel in the workforce will likely change to include more technical and system integration attributes required to supervise AV-supported operations. Industries must immediately start growing and evolving their current workforces to ensure they are prepared to realize the potential of AV-enabled operations as the technology becomes ready for implementation.

WHERE ARE INVESTMENTS BEING MADE IN REGARDS TO TECHNOLOGICAL REQUIREMENTS FOR AVS?

Significant investment and innovation is occurring in the key technologies required for the AV systems, to include sensors, computing and artificial intelligence (AI). On highway AV development is advancing rapidly due to the focused energy of OEMs, while development of off-highway AVs is generally more diffuse. Successful use of AVs in a commercial settings requires greater emphasis on

AV17

the supporting technologies and systems needed to integrate AVs into operations. Key enabling areas that require further investment include data collection and management, cross-system integration and human machine interfaces to ensure safety and awareness.

WHAT DOES SOME OF THE CURRENT MARKET RESEARCH SHOW ABOUT THE FUTURE OF AUTONOMOUS VEHICLES?

Our market research shows that the rapid advancement of AV technology is presenting both opportunities and challenges for industry use. Zylter recently published an executive brief titled “Strategic Planning for Autonomous Vehicles”, that describes two general approaches that we see organizations take to AV implementation:

1. Technology-Driven Approach: This approach is used by organizations looking for opportunities to quickly apply a novel technology (like AVs) and is founded on an implicit belief in value of technology. While this approach can generate immediate brand value through “buzz”, it also presents a significant risk of investing long-term effort and resources in a solution that does not directly address the organization’s strategic needs or opportunities.

2. Operations-Driven Approach: This approach is characterized by a “practical optimism” about the potential of technology, but starts with consideration of potential options to address well-defined strategic challenges and opportunities. This approach is more deliberate, but also provides a significantly increased chance of long-term success. As compared to the technology-driven approach, the operations-driven approach is more likely to generate strategic value through sustained gains in efficiency, effectiveness, safety or brand value.

WHAT ARE SOME CHALLENGES BEING FACED BY ORGANIZATIONS LOOKING TO IMPLEMENT AVS, AND WHAT STEPS CAN BE TAKEN TO OVERCOME THESE?

Through our work with Fortune 500 companies and other industry leaders to develop and implement AV solutions we see four key challenges they are facing and lessons to address them:

1. The AV market is delivering many technologies, but few fully integrated capabilities: Companies must use a life-cycle approach to design, launch and support the AV solution that addresses their priority needs and is integrated with key processes and other technologies.

2. Organizational planning is not keeping up with AV technology advancement. Leveraging the potential of AVs requires a clear investment strategy and an accurate understanding of the technical maturity. This requires organizations to merge internal strategy with and external awareness of the AV market. Right now most organizations are struggling to bring the strategic planning and technological awareness together in a coordinated approach to AV implementation.

3. Successful AV use requires organizations to have a coordinated approach to research, development and integration (R/D/I) of the AV solutions they need. While the market is motivating significant research and development of AV technology, organizational R/D/I is needed to find and deliver capabilities that tailored to their specific operations.

4. Leading companies are starting early, but with a flexible and pragmatic strategy: Organizational adoption of AVs must support a strategy that sets clear priorities but is also able to accommodate rapid changes in available technologies. Organizational

strategy must focus on the most pressing needs and opportunities so that leaders can understand how and when AV can help address them.

THE AUTONOMOUS VEHICLES DETROIT SUMMIT IS FAST APPROACHING. WHAT ARE YOU MOST LOOKING FORWARD ABOUT IT?

I am excited to attend my fifth IQPC-hosted AV event to find out about the range of new products and innovations in the AV industry. Zylter draws on an extensive network of manufacturers and expertise to help industry-leading companies build the AV capabilities they seek. The Autonomous Vehicle Detroit Summit provides us an unmatched opportunity to expand our knowledge of industry trends, extend our network of AV partners and make new friends!

SPEAKING SESSION: AUGUST 23RD

STRATEGIC PLANNING & IMPLEMENTATION OF AVS IN ORGANIZATIONS

- Can AVs improve the safety, efficiency, and competitiveness of my operation(s)
- Which of my functions can AVs execute or enhance?
- When will these emerging technologies be available for implementation?
- What are the best AV and other technology investments for return on investment (ROI)?

[View Session](#)

AV17

Autonomous Vehicles DETROIT

AUGUST 22-24, 2017 • MGM GRAND • DETROIT, MI

View Agenda



Follow Us

