



Séminaire du CIRRELT

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3D PRINTING DOWNSTREAM PRODUCTION TRANSFORMING THE SUPPLY CHAIN

Abstract: Additive manufacturing (AM), often called 3D printing, enables new capabilities that have the potential to structurally change commercial and military supply chains as they exist today. Although much focus has been paid to improving maintenance, repair, and operations, the next wave of AM capability will focus on customizable material properties and novel industrial manufacturing capabilities. The United States is far from the only country in a global competition for technological superiority. Gaining a significant lead in this technology will give a dual strategic advantage to nations in both economic and military spheres. Within the military supply chain, the expeditionary downstream operator requires the ability to make parts rapidly, regardless of technology. For the U.S. Department of Defense (DoD) to be successful in deploying 3D printing, a considerable number of issues must be addressed, including intellectual property and cybersecurity issues and the need for revisions to acquisition policy and processes to ensure that they consider current and future implications of 3D printing for military platforms. This Perspective describes potential uses of 3D printing in a military context to help DoD understand the structural and policy changes that might be required to support these efforts. It discusses different types of 3D printing technologies, tracing 3D printing from its origin to its potential to transform supply chains for DoD. By applying a capability-based, technology-agnostic definition of 3D printing, this Perspective provides a framework to help DoD think about future impacts on its supply chain.

Biography: Dr. Simon Véronneau is a Management Scientist at RAND Corporation and an Associate Professor at the Naval Postgraduate School. His research focuses on technology impact to operations and supply chains, global supply chain strategies, maritime issues, transport management, internal service supply chains, and real-time critical operations management. He currently serves as the Associate Editor of the Journal of Transportation Security. At RAND he has worked on a range of topic such has: strategic supply chains, Additive Manufacturing's impact to DOD, supplier dynamics, and acquisition policy. He is a noted researcher on technology as well as ship business and operations. He has authored a number of book chapters and peer-reviewed science journal articles in operations and supply chain management. Dr. Véronneau holds a Ph.D. in Operations Management from HEC Montreal, a Master of Science in Transport & Maritime Management from Universiteit Antwerpen, and a Bachelor in Maritime Studies from Memorial University of Newfoundland. He is also a licensed Master Mariner with work experience as a senior officer in the Canadian Coast Guard, cruise ships, and merchant ships. Dr. Véronneau has also taught at Quinnipiac University, and HEC Montreal. He also previously served a three-year term as a scientific advisor on the cruise ship wastewater science advisory panel for the Department of Environmental Conservation in the state of Alaska.

JEUDI

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La présentation sera bilingue

Organisateur:
Yan Cimon

