



TALKING TRASH: INTERSECTIONS BETWEEN TECHNOLOGY, WASTE MANAGEMENT & THE TRANSITION TO A ZERO WASTE ECONOMY Session: In-Person

Lillian Williamson*, @lill_williamson, Program on the Environment, Environmental Studies & College of Arts & Sciences, Political Science, University of Washington

Site Supervisor: Hannah Johnson and Anna Wilson, Perennial Zero Consulting

Faculty Advisor: Kristi Straus, Program on the Environment, University of Washington

Western societies produce more waste now than at any time throughout human history, and waste management is an important way to limit the environmental impacts of waste. Over the past several decades, new waste management technologies including automated sorting, management softwares, and more efficient recycling procedures have been developed. The aim of this study was to understand the opportunities and challenges associated with these new waste management technologies, as well as the scale of impact they can have on waste management. For my Capstone project, I interned with Perennial Zero Consulting, a Seattle-based waste management consulting firm. To collect evidence for my research, I conducted interviews with waste management experts, performed a literature review of waste management technologies, and analyzed several waste management technologies as a part of a catalog project for Perennial Zero Consulting. Although my research showed that waste management technologies can go a long way toward making landfills and recycling more efficient, it also showed that technology alone cannot solve our waste issue. Therefore, it is necessary that Western countries shift to a low-waste circular economy. This involves shifting production away from goods that are meant to be quickly thrown away, to goods that are intended to be re-used for years. The sheer amount of waste produced globally is not sustainable and has extreme detrimental impacts to both the environment and human health. By transitioning to a low-waste circular economy, we can be able to massively reduce the amount of waste produced, and therefore, reduce its environmental impacts.