Things to note:

1. Orbisk got back, follow up with them for answers later this week.
2. Leanpath interview, connect with them and check
3. Title, Abstract and research question it should answer
4. Send 3 mail to Prof Quincy for Fall fund, abstract review and transcription of both audios
5. Draw the framework of the paper

Abstract 1:

This survey paper delves into the innovative approaches of two leading smart bin companies, Winnow and Kitro, in the realm of food waste management. Through in-depth interviews, we explore their system functionality, data collection and analysis methods, implementation strategies, user experience, and more. Leveraging data-related technologies, we uncover how these companies are revolutionizing the domain of sustainability through data science.

Technical advancements are evident in the core functionalities of these smart bins. Winnow's system employs sophisticated image recognition techniques to identify and differentiate various food items placed in bins. By meticulously measuring food waste generation, utilizing cameras and advanced algorithms, both companies extract critical data points that play a pivotal role in reducing waste. These data points are collected and analyzed at high frequencies, allowing for real-time insights.

Intricate data science methodologies are applied by Winnow to derive actionable insights from the collected data. This enables organizations to optimize their operations, leading to significant cost savings in food procurement and waste disposal expenses. Furthermore, scalability and adaptability are achieved through the integration of cutting-edge technologies, ensuring that these systems can evolve to meet changing organizational needs.

Non-technical dimensions such as user experience, compliance, and data transparency are also explored. Both companies provide training and support resources during the installation process, ensuring seamless user adoption. Concerns related to data privacy are addressed, with a focus on compliance with data protection regulations. The collected data is leveraged internally to drive efficiency, and measures are in place to ensure transparency and security when sharing data with external parties.

As the global focus on sustainability intensifies, Winnow and Kitro stand out as exemplars of data-driven solutions that combine technology and environmental responsibility. Through this paper, we illuminate the intersection of data science and smart bin technology, shedding light on the transformative potential of these systems in reducing food waste and promoting a greener future.

Abstract 2:

This survey paper investigates the data-driven innovations of two prominent smart bin companies, Winnow and Kitro, and their profound impact on food waste management. By conducting insightful interviews, we delve into the intricacies of their technical and non-technical operations, highlighting how data science plays a pivotal role in reshaping sustainability practices.

The heart of these smart bin systems lies in their technical prowess. Winnow's system employs advanced imaging technology to identify and categorize diverse food items within bins, seamlessly integrating data science and computer vision. This technology not only minimizes waste but also provides organizations with a rich dataset for optimization.

Data collection is a cornerstone of these systems, capturing essential metrics related to food waste generation. These data points are collected at high frequencies, enabling real-time analysis and informed decision-making. Winnow's data science methodologies further enhance the collected data, uncovering patterns and insights that drive cost savings and sustainability.

Implementation is seamless due to the technological foundations laid by both companies. User experience is prioritized through comprehensive training and support resources during the installation process. Additionally, these systems possess the scalability to evolve alongside changing organizational needs, embracing future enhancements and expansions.

Addressing non-technical dimensions, we explore the economic implications of these innovations. The cost savings stemming from reduced food waste are substantial, and return on investment (ROI) figures attest to the value these systems bring to organizations. Compliance with data protection regulations and data transparency are meticulously managed, ensuring the responsible utilization of the collected data.

As the paper unfolds, it becomes evident that the convergence of data science and smart bin technology can catalyze a paradigm shift in food waste management. Winnow and Kitro emerge as pioneering examples of companies that leverage data-related technologies to drive sustainability and efficiency, underscoring the transformative potential of data-driven solutions in shaping a more sustainable future.