

# The Real Reasons Composting on Campus is So Hard

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**Course**  
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Compost initiative team standing with compost and waste bins on campus. From Left: Carlos Figueira, Skye Earley, and Dr. Luc Bernier  
Photo credit: Matt Clarke



## Overview

When organic waste decomposes in landfill, it produces methane gas, which has a global warming potential ~25 times greater than carbon dioxide.<sup>1</sup> Composting significantly reduces the associated emissions compared to the same organic material placed in landfill.<sup>2</sup> Composting also avoids overburdening landfills, which have been shown to negatively affect biodiversity<sup>3</sup> and human health<sup>4</sup> locally and globally. McMaster University employs over 16,000 faculty and staff members and supports over 35,000 students.<sup>5</sup> There are over 20 eateries on campus and 13 public facing compost bins.<sup>6</sup> In 2022, more than 45 metric tonnes of organic waste from McMaster was improperly put into the garbage, instead of being composted.<sup>7</sup> The goal of this project was to use data-driven decisions to improve composting on campus.

## Objectives

1. Understand the barriers to composting on campus
2. Implement changes to remove stated barriers to composting
3. Evaluate the effectiveness of the implemented changes

## Reporting

To accomplish my first objective, I surveyed 200 participants, including students, faculty, and staff members. Participants suggested that more compost bins in high traffic areas such as dining areas, libraries, and residence buildings would help alleviate the main barriers of inadequate number and location of bins. Additionally, participants recommended implementing visible and consistent signage, along with information about where bins are located. Some participants requested new bins where bins already existed. Upon investigation, I saw that many existing bins lacked any form of signage.

In carrying out my second objective, I worked with campus experts and stakeholders to:

- Re-install three composting bins that were decommissioned during the COVID lockdown
- Add composting bins to washrooms in MDCL as a pilot for paper towel composting
- Create an interactive map displaying compost bin locations throughout campus
- Improve the clarity and consistency of signage, complete with a link to the interactive map
- Ensure all bins were outfitted with the new and accurate signage

To achieve my final goal of evaluating the effectiveness of these changes, I re-surveyed the original participants to gauge their perception. Within one week following the improvements, 30% of participants noticed the changes, and 30% encouraged continued improvements. In addition to adding more bins across campus, future studies should investigate the reasons for and how to reduce contamination of waste being disposed of in the composting bins, which would ensure the effectiveness of the program.

## Collaborators

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