Senior Design BS Project
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Investigation on Makerspaces

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SENIOR DESIGN EXPO

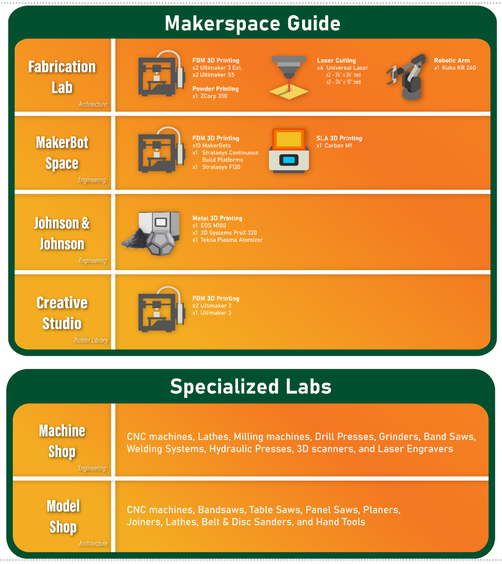
Abstract

The University of Miami has a plethora of advanced digital fabrication labs colloquially known as Makerspaces. These labs feature specialized machines such as 3D Printers, CNC Machines, Laser Cutters and Programable Robots. Unfortunately, the majority of makerspaces in UM's ecosystem operate in isolation from one another, with varying degrees of transparency, accessibility, and restrictions.

Introduction

Our project had three goals:

1. Document and Analyze the Capabilities and Processes at existing makerspaces
2. Survey Student & Faculty opinion
3. Relay this information to relevant bodies



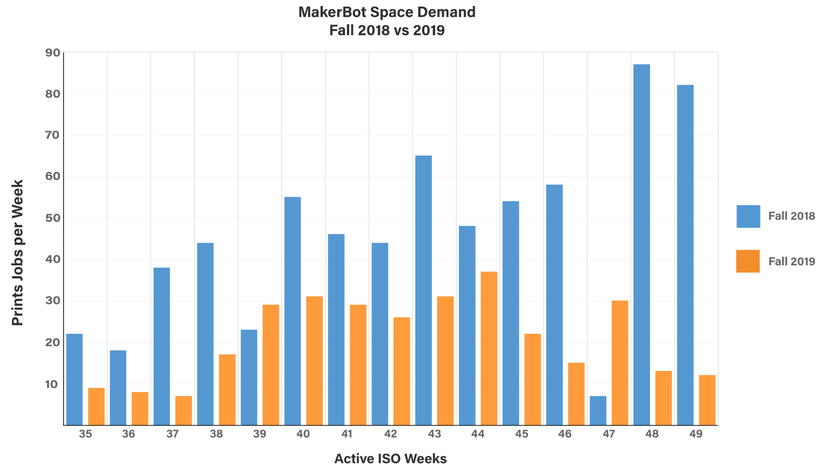
Methods I Design I Analysis

Our information was collected in the form of:

Interviews

Surveys

Utilization Metrics



Results

72% drop in usage compared to PY

90% of students would like to use the makerspaces

Only 1-in-3 students are currently using makerspaces

95% of students would like a change to the curriculum

Conclusion

The College of Engineering and the University as a whole must take steps to increase student involvement in their makerspaces via:

- Incorporating Makerspaces into its Coursework
- Making relevant skills a consistent part of curriculum
- Supplying sufficient funding to Makerspaces
- Advertising these spaces effectively to Students

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