



# Makerspace

## ANNUAL REPORT

Philip Robbins (Makerspace Coordinator)

March 2025

## 2024-2025 Overview

As Langara College moves forward within an era of change and adaptation the Makerspace continues to build upon the key elements of Langara's strategic plan, Langara's core policies, and the vision of our Senior Leadership. The Makerspace ethos of 'Make Things Better' equips faculty, staff, and students with the tools to explore a wide array of accessible new technologies while critically assessing their implications. These opportunities and empowerments are emergent, fluidly evolving, and broadly relevant to the multitude of challenges facing our diverse communities.

**“[Langara,] where students actively engage with real-world challenges, contextualizing education within the complexities of today's world.”**

DR Paula Burns – Strategic Framework Update – Feb 2025

Langara's Makerspace is grounded in critical thinking and active, hands-on participation. Our Makerspace is a place to examine the relationships and tensions between *How* and *Why* and a place to put new ways of *Doing/Knowing* directly into practice. A unique resource, our Makerspace gathers siloed disciplines and brings them into direct collaboration, an atypical opportunity within academic environments. Recent partnered research projects have built transdisciplinary teams of students from Design Formations, Fine Art, Statistics & Data Analytics, Engineering, Web and Mobile, and The Langara School of Management. These Applied Research collaborations have provided students with the rare opportunity to work, discover, and learn through real-world challenges. As an aggregator, our Makerspace has attracted a unique cross section of curriculum from across Geography & Geology, Sociology & Anthropology, Engineering, Studio 58, Fine Arts, Library & Information Technology, Photography and Journalism, Design Formations and Biology. Our Makerspace offers an inclusive environment for open-ended exploration, allowing our community to uncover new relationships and opportunities while forging meaningful connections.

**“[a] new strategic framework grounded in Langara's advancements in... applied research, and community partnerships”**

DR Paula Burns – Strategic Framework Update – Feb 2025

Langara's Makerspace has effectively established collaborations with a diverse array of community partners. Through our versatile and highly adaptable technologies we have formed successfully partnerships with various academic institutions including ECUAD (ARC Engage); Toronto Metropolitan University, Memorial University, Thompson Rivers University, and the University of the Fraser Valley (SSHRC). Additionally, we have engaged with small enterprise like Toby's Cycle Works (ARC Engage), civic government entities such as the City of Richmond (ARC Engage), local non-profits including Thingery (ARC Engage), and organizations like the Neil Squire Society (ARC Engage). These partnerships have generated substantial funding and involved a multitude of students from across a wide range of disciplines. By connecting community needs with academic resources, students have been able to acquire and apply new knowledge, gain fresh insights through diverse perspectives, and develop broader, more inclusive, transferable skill sets.

**“Technology Utilization/ Digital Transformation”**

DR Paula Burns – Strategic Framework Update – Feb 2025

Our Makerspace attracts curiosity. With our wide collection of new digital tools, student, faculty, and staff are invited to explore the details of digital production and its relationship to larger contemporary issues. As a hands-on space our Makerspace provides the opportunity to acquire in-depth, transferable, technical understanding and a place to put this newfound knowledge directly into practice. As digital tools continue their march toward greater capability and broader uptake our Makerspace offers a welcoming, low barrier space to demystify these advanced

resources. We encourage users to carve out their own digital pathway and develop in-depth understandings to navigate with confidence and competence.

### “Promote sustainability in the teaching, learning, researching and working environments in alignment with strategic directions”

Langara Sustainability policy H1002

Makerspaces offer a powerful antidote to the overwhelming complexity of global challenges. By breaking down large, global problems into smaller, manageable components, makerspaces empower individuals to directly participate in the entire solution workflow, from conception to completion. This hands-on approach directly fosters mindful decision-making, promoting responsible innovation and the discovery of more sustainable solutions. The bottom-up nature of Makerspaces provides a new paradigm for tackling global issues, emphasizing localized action and individual agency.

### “An institutional culture characterized by leadership in environmental, social and financial sustainability”

Langara Sustainability policy H1002

A contemporary institutional culture that emphasizes leadership in environmental, social, and financial sustainability is essential for Langara. Our sustainability policy, H1002, underscores the importance of integrating these principles into the core values of the institution. The identity of Langara’s Makerspace is rooted in empowering individuals with the skills and resources necessary to realize these visions. This approach fosters a comprehensive understanding of digital skills imbedded within a broader context, positioning the Makerspace as an innovative blend of traditional *Maker* attributes and research facility strengths. It offers accessible engagement, contemporary tools, and partnerships that address significant global challenges such as circularity, sustainability, local empowerment, and inclusion. The Makerspace promotes hands-on, experiential learning and non-linear problem-solving, encouraging individuals to explore diverse pathways in the discovery of innovative solutions. It serves as a safe environment for experimentation, where missteps are viewed as opportunities for growth. By fostering cross-disciplinary collaboration, the space cultivates transferable skills and knowledge, providing new tools and opportunities in a welcoming and inclusive setting. This approach challenges participants while offering support, creating a dynamic atmosphere for exploration and creativity.

### Sustainability as foundational principles and values integral to Langara

DR Paula Burns – Strategic Framework Update – Feb 2025

In facing complex societal and environmental challenges, our Makerspace has emerged as a valuable resource that garners interest from both within and outside the institution. It serves as a platform for engagement with pressing issues, facilitating deeper understanding, and the development of impactful solutions. By enabling individuals to confront these multifaceted challenges/opportunities, our Makerspace empowers us to create mindful solutions that resonate outward from the personal to the community.

## General Timeline

- Ongoing work on City of Richmond collaboration - **Feb 1**
- Meet with Yue- Ching to discuss possible collaborations – **Feb 15**
- Ongoing SSRC collaboration meeting (Partnership Development grant– **Feb 15**
- Japanese student tours (Langara Global) - Feb **21**
- Attend ARC Lunch+ Learn – **Feb 28**
- Begin discussion with CoR on developing Micro-Credential – **Feb 28**
- Prep for Applied research Day - **March 1**
- Students design/fabricate ARC clipboards – **March 11**
- Attend Applied Research Day (CoR Collaboration) – **March 19**
- Begin development of Thingery collaboration – **March 25**
- LaSalle College Makerspace tour **April 4**
- Promotional Video with SC+M – **April 10**
- New Student welcome day – **September 7**
- Receive letter of support – Thingery Collaboration– **April 11**
- Connect CS faculty to possible collaboration with Neil Squire Society – **April 17**
- Prep for Mini-Conference– **April 19**
- Present at Mini - Conference – **April 24**
- Develop Thingery collaboration application – **April 29**
- Engineering Faculty Makerspace tour – **May 2**
- Coordinator journey to Toronto (SSHRC collaboration) – **May 4-12**
- ARC Engage submitted (Thingery Collaboration) – **May 16**
- CoR project completed – **May 20**
- CoR students present at ARC Lunch and Learn – **May 22**
- Complete 2024 Annual Report – **May 28**
- Fine Arts hiring committee – **July 16**
- Coordinator journey to St. John's (SSRHC project planning – **August 14-20**
- Begin organization of Thingery collaboration – **August 27**
- Meet with Facility about Circularity project development **August 28**
- Langara back to school event – **Sept 5**
- Attend ARC appreciation breakfast – **Sept 10**
- Begin Hiring Students in to Thingery project - **Sept 17**
- Thingery Project Team meeting – **Sept 23**
- Attend Secondary School councilor event - **Oct 23**
- Attend ARC lunch +Learn – **Oct 24**
- Present at Langara/CapU research collaboration meeting – **Oct 28**
- Present at ARC event – **Nov 1**
- Attend Langara Student Faire – **Dec 2**
- Host CoR team documenting couch project – **Jan 15**

## Langara College Makerspace

- Makerspace tour for CS – **Feb11**
- Makerspace tour for Library sciences– **Feb 14**
- Complete Thingery Project – **March 10**
- Attend Applied research day – **March 20**

## Participation (Feb 2024 to Feb 2025)

Data Compiled by Don Gillard – Makerspace Technician

Numbers for Makerspace Feb 2024 – Feb 2025 (based on equipment signups, workshop signups & class bookings):

Workshops attendance	- 570
Equipment usage/signups	- 980
Total cumulative daily visit (equipment sign-up, class bookings, workshops, drop in's, Inclusive of above)	- 1700 approx.

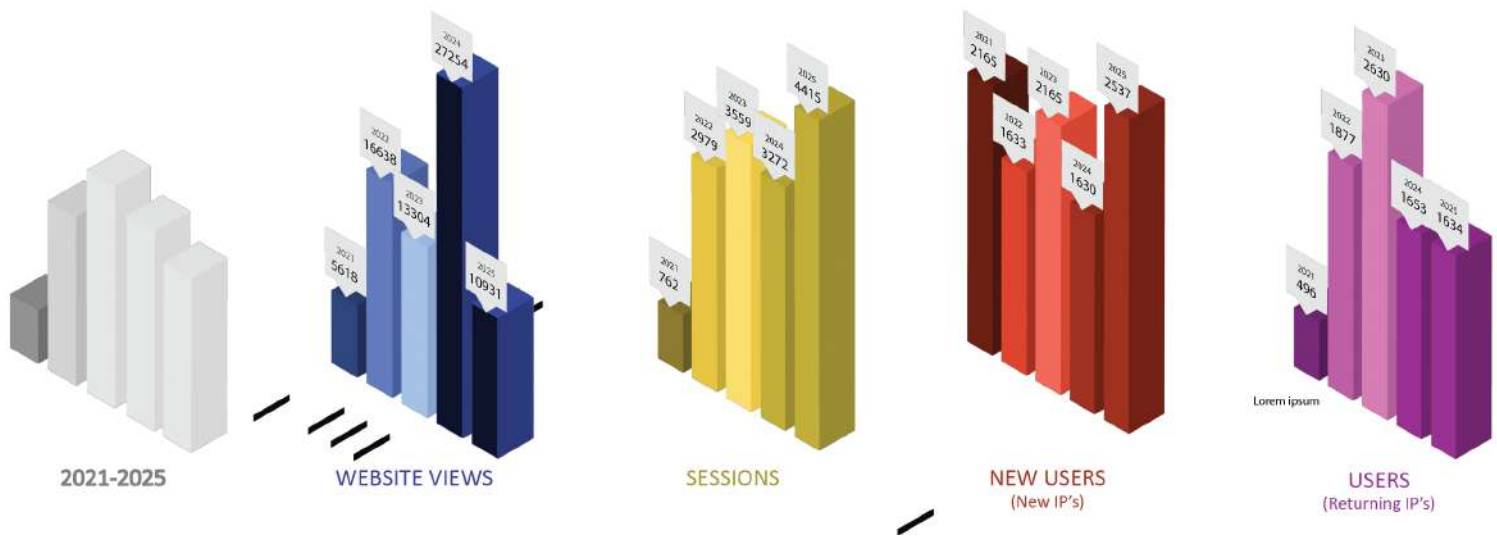
### YOUTUBE STATISTICS (Feb 2024- Feb 2025)



YouTube Views



#### WEBSITE ANALYTICS (Feb 2024 - Feb 2025)



## Students Hired

The Makerspace continues to integrate students from across disciplines into a range of new opportunity. Students from Web and Mobile, Biology, Data Analytics, and Engineering have been hired to work as Research Assistants this year.

## New Technology

The Makerspace has built out a full complement of new technologies that allow ideas to flow from concept to working prototype across a range of materials, processes, and scales. With the addition of our new FilaFab Pro 1000 EX plastic extruder providing the Makerspace with capability to fully recycle old 3D prints into new 3d printable filament creating a circular production ecosystem.

## Summary

Langara and The Makerspace are at a crossroads. The Makerspace is well situated at the intersection of Langara's burgeoning research capabilities and the interest of the larger community. The Makerspace has the unique digital capacity to interact with a broad spectrum of Applied Research questions related to the design, prototyping and testing of physical objects. As a hands-on space the Makerspace provides and unparalleled opportunity for students, faculty and staff to investigate new digital tools, hone their digital competencies while addressing contemporary issues and opportunities. As a unique space outside of the classroom the Makerspace welcomes a diversity of skillsets from across disciplines to explore real-world challenges and be impactful.



