## Contact

ianroy@gmail.com

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## Top Skills

Hardware

Research

Public Speaking

## Languages

French

## Certifications

Licensed FAA Section 107 sUAS Remote Pilot

Dell Online Self Dispatch Desktop

Dell Online Self Dispatch Laptop

Dell Online Self Dispatch PowerEdge

Apple Certified Macintosh Technician (ACMT)

## Publications

Virtual Reality and Emerging Tech Playground: The Role of Emerging Technologies in Higher Education

"The Evolution of FPV Drone Racing: trends, and what has changed in the last year" by Brandeis MakerLab

The Role of Emerging Technologies in Higher Ed: Impacts on Teaching, Learning, and Research

THE IDEA EXCHANGE: MAKER SPACES IN HIGHER ED

How to Pack a Mobile Makerspace: Digital Fabrication Workflows in Support of Faculty Field Research

# Ian Roy

Director For Research Technology and Innovation/ Head of MakerLab/ Lecturer in Anthropology/ Adjunct Professor at IBS
Waltham

## Experience

**Brandeis University**
9 years

Director for Research Technology and Innovation
August 2015 - Present (5 years 11 months)
Waltham, MA

Direct the development, planning, evaluation, and management of the strategic vision for IT research support.

Create and enable an environment that facilitates innovative thought about the future of research technologies as well as the use of emerging research technologies across disciplines.

Engage with faculty and researchers to cooperatively determine and support current and future needs, and to establish strategic plans for research technology service delivery.

Build, develop, and support a diverse and effective team of Research Systems Specialists.

Support technology needs within research and lab environments that exist between the typical end user desktop environment and the lab / high-performance computing / MakerSpace environment.

Lecturer in Anthropology
August 2019 - Present (1 year 11 months)
Waltham, MA

Co-Teaching ANTH129A - "Culture in 3D" with Professor Charles Golden
Instructors: Charles Golden and Ian Roy
Department: Anthropology
This course is designed to train undergraduate and graduate students in the methods needed for the successful application of 3D modeling and printing for the documentation, conservation and dissemination of cultural

patrimony. Students will acquire the technical skills, and engage in the ethical debates, surrounding ownership and reproduction of such patrimony.

## Head of MakerLab
December 2014 - Present (6 years 7 months)
Waltham, MA

There is something about Brandeis that embraces emerging technology. When I was an undergraduate here starting in 2001, I would mod computers in my dorm room. Assemble and overclock components, cut custom windows and spray paint the cases back when you could only buy beige boxes. And I found other people who would hold up in their dorms and work on similar projects.

There is an entrepreneurial spirit here, but we don't have an engineering program. We are pragmatic dreamers; innovators with an outside-the-box question-everything mentality, with extreme respect for human rights and equal access, passionate about enabling all humans. And For the first time in human history, there is a digital fabrication toolset available that caters to this, allowing users to skip the engineering-training gap and go straight from concept to creation. These tools enable you to focus on design and iteration. Make, Break, Remake is one of our mottos in the MakerLab. Don't be afraid to fail. Fail faster and fail smarter.

Our goal is to build a community centered place to bring those people to work on projects and cross pollinate in an ask-the-room setting of local experts. The contribution and engagement this enables is new and extremely empowering (to both the individual and to the potential for humanity).

Access, Autonomy, and Mastery is another thing we try to give people - those three things are, to me, the most important motivators. Maker Spaces don't succeed unless the type of projects they support align with the flavor and values of the local community.

Brandeis is a Social Justice-Liberal Arts-Research University, and our MakerLab's mission statement reflects that environment:

"Supporting educational, social and technological innovation, the Brandeis LTS MakerLab is oriented around a vision of social justice designed to support makers who mend. We collaborate on computing projects to develop new forms of culture and craft in a community-centered setting."

## Research Technology Project Lead

July 2012 - August 2015 (3 years 2 months)
Waltham, MA

Systems Architect in the Research Enterprise. Technology Evangelist.

In the Spring of 2013, I did the initial infrastructure purchase, specification, and build out of the Research Technology Department within LTS.

This is a community building project, but there is a focus on bringing desktop style break-fix support to instrument workstations and servers controlling research technology such as DNA sequencing machines, electron and laser microscopes, additive and reductive manufacturing machines (anything g-code driven), NMR spectrometers, and HPC hardware (supercomputer).

Research Technology support at Brandeis also touches digital forensics and security tools, institutional storage of big or toxic data, Data recovery and destruction, Cloud collaboration and backup in a research context, and many of the new toolsets in the Maker community, including support of touch and gesture inputs, 3D printing, 3D scanning, and prototyping with embedded systems (Raspberry Pi, Arduino, and Electronic IMP, etc). With efforts to discover, advance and mainstream support of researcher's workflows by facilitating vendor contact and troubleshooting of unique software and hardware required for research.

We work with artists, scientists and innovators across the disciplines to bolster the technological hurdles they encounter in their research workflows, top to bottom and are constantly running local pilots in new technologies to address their needs. From enterprise level buy-ins that require full community support, to hardware hacking cheap one off solutions.

Brandeis International Business School
Adjunct Professor in the Brandeis International Business School
September 2017 - Present (3 years 10 months)
Waltham, MA

Faculty Profile:
http://www.brandeis.edu/facultyguide/person.html?
emplid=e1b21496896ddff81d7249e1bc6d95387a2c72e5

4 credit - Co-teaching with Professor Aldo Musacchio, Spring 2020, Fall 2020
BUS 233a  "Entrepreneurship and Rapid Prototyping"

2 credit - General Ed. Seminar - Module 2 Fall 2019, Spring 2020
BUS 232f  "Digital Fabrication with Robots"

2 credit - General Ed. Seminar - Module 2 Fall 2018, Spring 2019
BUS 232f "Digital Fabrication with Robots"

1 credit - General Ed. Seminar - Module 2 Fall 2017, and Spring 2018
BUS 291g  "Digital Fabrication with Robots"

The goal of this course is for students to walk away with the ability to imagine a design and produce it in physical reality. Students will learn the fundamental underlying technologies in digital fabrication, 3D scanning, 3D design, and robotics. Through a combination of real world examples and hands on experiences, students will learn to take a design from concept to reality. There will be a focus on literacy of underlying technologies: how things work, what their limitations are, why they fail, and how to troubleshot or design around those limitations.

Deis3D
Staff Advisor
January 2014 - January 2018 (4 years 1 month)
Brandeis University

Founding advisor to the Brandeis 3D Printing Club.

I attend all weekly meetings, help with purchasing, trainings and workshops, and am deeply entrenched in growing our local community.

Helped organize the first Hackathon at Brandeis University.

Held the role of official event 'Host' for Brandeis Printathon I and II (24 hour 3D printing Hackathon March 7-8 2015 and October 3-4 2015). http://printathon.org/

Sullivan & McLaughlin
Desktop Support Specialist
October 2011 - February 2012 (5 months)
Dorchester, MA

• Ran point at the helpdesk troubleshooting all kinds of issues on Windows 7 Machines and Mac OS 10.6.8 and iPads.

● Managed an Active Directory environment with 20+ containers and 400+ employees, an Exchange Server with 400+ mailboxes, and a Blackberry Enterprise Server for 200+ users

● Deployed 5-10 phones a day from vendors including ATT, Sprint, and Verizon. In charge keeping an active inventory of iPhones, Android and Blackberrys, doing phone swaps to and from all environments, and user training of devices.

● Streamlined the IT process, created a runbook and the first images for a complete company desktop computer upgrade.

● Point on a new recycling program for used PCs and Phones, saving the environment while generating revenue.

● Reorganized the warehouse and helpdesk to allow for better productivity and more of a storefront look.

## Bez Ambar Designs
Technology Specialist
June 2005 - October 2011 (6 years 5 months)
Los Angeles, CA

● Technical lead in charge of all computers, software, peripherals, and network infrastructure for a 20 person office.

● In house commercial photographer for all brochures and advertisements, handling millions of dollars of inventory daily, and responsible for shooting ads for mainstream magazines and quarterly jewelry Line Book (portfolio available upon request).

● Implemented a total accounting and asset management solution. Merged databases from an old RBase database to MS Dynamics Navision. Created a series of training exercises and user specific training documents for each part of the workflow.

● Troubleshot Mac, PC, and Linux systems running Mac OS 10.4-10.6, Windows 2000, Windows XP, Windows Server 2003, Windows server 2008, Windows Vista, and Windows 7, Ubuntu 10.x.

● Assisted with implementing and troubleshooting 3D printers and installing and configuring CAD software.

● Managing internet commerce transactions as well as interactions with prospective internet customers.

● Installed and managed a new security surveillance system from Nuvico holding over a month of footage from 16 cameras.

## Brandeis University
Unet Team Leader

March 2002 - June 2005 (3 years 4 months)
Waltham, MA

Worked various positions within Brandeis University's technology group while completing undergrad there, including: Repair Shop Technician, Unet Technician, Tech Desk Student Worker (Summer 2003 and 2004), promoted to Unet Manager Fall 2003, promoted to Unet Team Leader Fall 2004.

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## Education

Brandeis University

Bachelor of Arts (B.A.), Economics, Philosophy, Film Studies · (2001 - 2005)