

MA{VR}X Lab Manual  
Or, A Virtual Researcher's Illustrated Primer

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# Preface

This manual was created using the **bookdown** package (?), which was built on top of R Markdown and **knitr** (?).

The contents of this manual are heavily influenced<sup>1</sup> by John Paul Minda and Emily Nielsen's *Lab Manual* (?).

## Using this book

This manual is licensed under the [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#). It is available as a PDF, eBook, or via the web. We encourage you to use the **OSF** project to cite this particular document. (Coming soon.)

## Structure

This manual should be considered a comprehensive living document aimed at presenting a unified understanding of how the lab works and what it should become.

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<sup>1</sup>read: stolen, but with permission



# About the MA{VR}X Lab

About the lab goes here.

Information here can be taken directly from the website, if desired.

## History

History of the lab.

## Identity

The lab's identity is determined by three basic concepts: its mission, vision, and values.

### Mission

### Vision

### Values



# Chapter 1

## People and Roles

For detailed information on those working within/for the lab, visit the [MAVRX Lab's website](#)<sup>1</sup>.

The expectations and roles within the lab revolved around the **openness** that we strive for, so clarity and frankness are valuable. It is important to remember that the lab is a resource, and the main role within the lab—that of the director—is to assist others in the utilization of that resource.

### 1.1 Director

The director of the lab is responsible for the day-to-day administration of the physical, digital, and logistical spaces. While responsibilities may be delegated—and often are—the director is ultimately responsible for ensuring the lab is functional and productive.

Additionally, the director often serves in an advisory capacity for student research. This ranges from initial ideation to research project design to means of publication. That said, the director is not a “boss” of the lab; instead, they provide guidance at all levels, from the lab’s research trajectory and agenda as a whole to advising on a project-by-project basis.

### 1.2 Faculty Research Fellows

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<sup>1</sup>If the content of the lab ever drifts into first-person, presume the speaking voice is the director.

### 1.3 Undergraduate Research Fellows

Usually works directly under a faculty member or graduate student. The faculty need not be a member of the lab, but the director or a Faculty Research Fellow should be in the loop at all times.

- Stipend?
- Volunteer
- For-credit (preceptorship or independent study)
- Honors?

### 1.4 Lab Assistants

Some students will be paid to “work in the lab,” which could be anything from assisting in faculty research to lab maintenance to doing market research. While undergraduate research fellows may also be lab assistants, an overlap is not necessarily required or expected.

Regardless of someone’s role in the lab, there are expectations of professionalism, intellectual integrity, curiosity, and passion for praxis, the technology we explore, and the future we’re creating.

## Chapter 2

# Labs and Physical Spaces

The MA{VR}X Lab has two official physical spaces: room B158 on the University of Arizona Sierra Vista campus, and \_\_\_\_\_ on the University of Arizona Yuma campus.

### 2.1 Sierra Vista

- Map of campus
- Hardware maintenance
- Process to get keys and keypad entry
- Cleaning
- Important phone numbers and emails

### 2.2 Yuma

### 2.3 Other Locations

Plans to expand into other locations like Chandler are in the works.





## Chapter 3

# Communications

Ways we communicate and collaborate in the lab.

### 3.1 Email

The lab has its own email address: `MAVRX-Lab@arizona.edu` used for external communication. The director monitors this.

### 3.2 Discord

For virtually all lab-related chatting, announcements, and so on, we have a lab Discord server.

### 3.3 Social Media

The lab's social media presence is generally restricted to Twitter and YouTube. Research assistants are welcome to tweet relevant content from the lab's account. The director can help you set this up. Content ideas for YouTube should be discussed at length with the director, as this also requires getting other administrative bodies involved.

### 3.4 Webpage

We maintain a `blogdown` website for the lab at <https://mavrxlab.org>. This is where we share news items, project updates, upcoming talks, publication notifications, and so on. Specifically, Rmarkdown is used for this as it allows for native inclusion of data analyses and plain-text content creation. This book, for example, is a `bookdown` publication, also created using Rmarkdown.



## Chapter 4

# Meetings

We have meetings. We hold them via Zoom. We may hold them in Teamflow or Spatial.

### 4.1 Types and frequency

- Researchers actively working: **weekly**
  - Briefly update the lab on whatever they are working on.
  - This is also an opportunity for practice talks, elevator pitches for new project ideas, so on.
- Assistants/workers: **biweekly**
  - Check-ins.
- Faculty Research Fellows: **as needed**
  - This may be monthly, generally, but depends on the projects at the time.

### 4.2 Notes/Minutes

Notes and minutes from meetings<sup>1</sup> will—again, when appropriately public-facing—will be kept in the lab’s OSF ecosystem.

Template for meeting notes in markdown:

```
# YYYY-MM-DD HH:MM:SS
```

```
- Lead:  
- Note Taker:
```

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<sup>1</sup>Meeting minutes template based on the [core-notes/template.md at master · emberjs/core-notes](#)

**## Attendees**

Add yourself to the list if you attend and check the box!

**### Core Team**

- ☐ Ryan Straight (RS)
- ☐ Diana Saldana (DS)
- ☐ Tony Vega (TV)
- ☐ Tyler Rhea (TR)
- ☐ Ariella Valencia (AV)

**### Guests**

- ☐ Your name here (INITIALS)

**## Weekly review**

- (General notes on weekly review here.)

**## Topics**

*<!-- If you would like to add a topic to the agenda please add your name to the appropriate line below -->*  
*<!-- ### Your topic (INITIALS, expected duration in minutes) -->*

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*<!-- ### Your topic (INITIALS, expected duration in minutes) -->*

*<!-- ### Your topic (INITIALS, expected duration in minutes) -->*

**## Any Questions?**

Questions, comments or concerns? Submit a comment or PR for this set of notes after the meeting.

**4.2.1 FERPA**

- ☐ RS: Check if there are *any* FERPA concerns with making these meeting minutes public.

## Chapter 5

# Practices and Protocols

We deal with disparate technologies, fields, and methodologies. Having clear and available policies, practices, and protocols is absolutely essential.

### 5.1 Documentation and Manuscripts

#### 5.1.1 File Formats

Along with the ?? we strive for when disseminating work via the lab, open formats should also be used when possible.

Documents: markdown (Rmarkdown) or RTF

Images: JPEG-2000 or TIFF

Video: MP4

#### 5.1.2 Documenting and Record Keeping

Projects should be housed in the lab's OSF project but the actual work done in these projects—writing, code, et cetera—should go in a GitHub repository within the lab's organization. That repository can then be linked to the OSF sub-project.

Having a well-written and organized README file in your repository is absolutely essential. To conform with [UA Research Data Repository Policies](#) (and to have a consistent organization), you should at least start with the [README\\_template.txt](#) they provide. You are also encouraged to maintain a step-by-step process that describes your project environment, how to run any cleaning scripts (if applicable), and how to reproduce the manuscript/slide deck/et cetera. [software\\_in\\_research\\_survey\\_2014/README.md](#) is a good example of this.

Likewise, when describing commits in GitHub or describing updates in OSF, please don't skimp. Commits are cheap and the next person that reads what you left will thank you.

*Protip:* use GitHub's **Release** function to keep track of substantive updates to a project by keeping track of release notes and next steps. This will also help spin up a new collaborator should someone join your project.

### 5.1.3 Filenames

We believe in standardizing as much as we can in order for consistency and clarity. Filenames should be chosen using the three considerations delimited by [Jenny Bryan's "How to name files"](#). They should be:

1. Machine readable
2. Human readable
3. Plays well with default ordering