# 1 Introduction

Context/Need/Gap/Hero Funnel. sample citation: [**matthis˙retinal˙2022**]

- Our current institutions of education and scientific research are inequitable, exclusionary by design, and ill-equipped to address the existential threats and transformative opportunities presented by the rise and spread of high technology through a globally interconnected world.

- The current system is a built around a massive concentration of resources within Ivory-tower institutions, with research occuring in siloed 'cottage industries' driven by student labor and debt within a gerontocratic ponzi-scheme competition based heirarchy predicated on the assumption of lateral competition predicated on assumptions of false scarcity.

- To face the rising challenges and seize the opportunities, we must develop new institutional structures based on a commitment to the values of *Universal Access and Universal Design.*

*- In this proposal, we present a potential model of an Open Source Ecosystem (OSE) as a prototype organization structured in service of these needs.*

*- Specifically, we descripbe a plan to buttress and shape the burdgeoning community of users, developers, students, and educators forming around the FreeMoCap Project (FMC) into a self-sustaining and expansive Open Source Ecosystem (OSE).*

*- Our plan comprises 3 inter-woven foci - - A core software platform and framework for the measurement, analysis, and visualization of human and animal movement (FMC-Core) - A broad and diverse userbase representing wide array of backgrounds, interests, experience levels, and geographic sprea (FMC-Community) - A self-sustaining organization to support a dedicated team of core maintainers who ensure the healthy growth and long-term stability of the ecosystem (FMC-Foundation)*

## 1.1 Intellectual Merit

*- Enablabling tech-forward integrative research - Rosetta Stones and Systems Engineers - Training nextgen technowizards and cross-disciplinarians*

# 2 Broader Impacts

*- **Meager success:** - New useful tool - New body of research realted to human/animation perceptuomotor control - Education tools and strategy - **Expected outcomes:** - Support and sustain the growing community of 'freemocap' users, loosely organized around a shared love of the measurement, investigation, analysis, and expression of human and animal movement (broadly construed) - Sustainable organization and vibrant ecosystem existing as a proof-of-concept alternative organizational approach to broadscale academic research, education, and training - **Idealist future:** - Iterative solutions on 'project-scale' strategy produces a vibrant **ecosystem of ecosystems** which fundamentally changes the face of education and scientific research.*

# 3 Objectives

*Transition from Stadium to Federation [<**empty citation**>]*

*- Technical Objectives - CI/CD - Sub-skellies - Documentation and onboarding - Community Development - User XP tracking and educational trajectory shaping - Community support Activitites - Community grants Program - Community challenges program - FreeMoCamp/Con - Organizational - Setting up FMC-F - Define and support core maintainer team*

#### 7.1.2 Documentation and Educational Material

#### 7.1.3 Datasets and derived models

### 7.2 The FreeMoCap Community (FMC-C)

### 7.3 The FreeMoCap Foundation (FMC-F)

#### 7.3.1 Organization

#### 7.3.2 Governance

#### 7.3.3 Responsibilities

#### 7.3.4 Licensing Model

## 8 Planned Activitites and Objectives

### 8.1 Ecosustem establishment and growth

#### 8.1.1 Userbase Analysis/Engagement

#### 8.1.2 AI Psuedo-Mentorship (SkellyBot)

### 8.2 Community Building

#### 8.2.1 Annual Workshop/Conference: FreeMoCamp/Con

#### 8.2.2 Community Challenges

#### 8.2.3 Community Grants Program

#### 8.2.4 Gamification and acheivement-based badges

### 8.3 Organization and Governance

#### 8.3.1 Build admin infrastrcutre

#### 8.3.2 Develop SOPs

#### 8.3.3 Establish core maintainer roles and support

#### 8.3.4 Develop 'Skelly Enhancement Proposal'[SEP] system

### 8.4 Continuous Development, integration, Evaluation

#### 8.4.1 Development

#### 8.4.2 Integration

#### 8.4.3 Evaluation

**Tests.**

**Validation.**

**Diagnostics.**

## 8.5 Sustainability

### 8.5.1 Goals and Metrics

**Community Growth.**

**Organizational Stability.**

**Software Performance.**

**Revenue streams.**

## 8.6 Security and Privacy

## 8.7 Security

## 8.8 Privacy