# Public Invention Quarterly Report Q1, 2019

-- Robert L. Read, 3/29/2019

This is the first quarterly report of the official corporation Public Invention, whose first official meeting was February 15, 2019.

## **Organization Actions**

- On February 15, 2019, the first board, consisting or 10 persons, was appointed, including a Secretary, Marc T. Jones. Robert L. Read (Rob) was appointed President and Treasurer and founding board member, having a term of 3 years.
- On March 18, a SWOT analysis was held in which several board members discussed strategy. It was decided to organize the 43 extant invention projects.
- On March 28, 2019, a gift of \$5,000 was received from Robert L. Read.
- On March 28, a checking account at Wells Fargo was opened and \$5,000 deposited. Quickbooks has been established as a bookkeeping system.

## **Public Inventing**

#### **Invention Projects**

Throughout this quarter, progress was made on a number of Public Invention Projects (mainly by Rob):

- The <u>TriadBalance</u> project was completed. This is a new form of interactive GUI element for expressing trinary balance, such such as "Mind/Body/Spirit" or "Strength/Cardio/Flexibility". It is rare for a Public Invention project to be so small as to be completed so quickly. A volunteer, Sean Johnshon, proofread and code reviewed this.
- The <u>SocialTetrahdrons</u> project was completed. This was a project done mainly for outreach, at the instigation of Mark Frazier. It is hoped he will promote Public Invention through this project.
- Significant progress was made on the <u>SegmentedHelices</u> project, which grew out of the 2018 Mathathon held by Public Invention. This project aims to produce an academic publication. The contributions are:

- Interactive 3D JavaScript code which demonstrated the ability to design a helix based on the face normals and twist of repeated prismatic sub-units,
- A proof of the observation that repeated subunits always produce a helix, and
- Algorithms (almost close-form expressions) for the calculation of the parameters of such a helix, allow such helices to be "designed" from the subunits and vice versa.
- Significant work was undertaken with David Jeschke, founder of Xtramath, on a project which he has not yet agreed to make a Public Invention project, although we have agreed to decide on April 15th.

### **Outreach and Communication Efforts**

In addition to the Social Tetrahedrons project which was undertaken mostly for outreach, Rob wrote two articles which were published on Medium in the magazine "Hacker Noon":

- <u>Public Invention Project #40: A Wheel for Painting Very Thin Lines</u>, having 38 reads at the time or this writing and having generated some conversation on twitter and linked-in, and
- <u>43 Public Invention Projects That Need You</u>, having 180 reads at the time of this writing.

Rob established a sub-reddit: <u>https://www.reddit.com/r/PublicInvention/</u>.

Additionally, Stephanie Liu and Rob met to develop a strategy for attending/hosting events that promote Public Invention.

## Goals for Coming Quarters

- Organize the Invention Projects into a map and other forms that make them easier to understand
- Identify and promote the top 3 projects (probably Rapid E. Coli detection, the Tetrobot, and the Segmented Helix project.)
- Apply for 501c3 status
- Complete the Segmented Helices Project to the level of ready-for-publication
- Plan a Public Invention event in conjunction with some other organization
- Develop a fundraising strategy
- Improve our web presence, perhaps by hiring a web designer
- Perform a branding exercise
- Establish a "shop" for selling swag and merchandise
- Announce the Social Tetrahedrons and Triad Balance projects.
- Recruit an Invention Coach other than Rob.