CS+Social Good: Getting Started

We’re really excited to have you on board with CS+Social Good, and we’d like to thank you for taking the time to implement our CS+Social Good Curriculum. There’s a lot in this Google Drive folder, so hopefully this document will help you get started with navigating our program.

About us:

CS+Social Good is Stanford’s first official student group working on the intersection of computer science and social impact. We seek to empower students to use technology for change. Our goal with our outreach programs is to bring the same empowerment to high school students. Check us out at cs4good.com! The high school team’s page is: teachcsforsocialgood.github.io

**What’s CS+Social Good?**

CS+Social Good is a full curriculum for high school students who have some experience with programming, for example after an introductory class or at the end of an AP Computer Science class. The curriculum consists of a series of projects that will engage your computer science students and teach them about how they can use their newfound technical skills for good. The curriculum lasts 2-6 weeks, and consists of some combination of the following components:

1. **Design thinking project** -- this helps students design for social impact. Students spend ~2 weeks interviewing people, defining a problem, and ideating/prototyping a solution. Methods are adapted from the Stanford design school.
2. **Coding projects** -- we have two one week coding projects that are applied to social spaces. We’ve expanded to three projects that you can select from.
3. **Mini Virtual Reality-lab** -- a two day project with Google Cardboards, exploring how virtual reality can create empathy.

Depending on your needs, you can **mix and match** different components of the curriculum.

**Getting Started and Curriculum Timelines**

Start by taking a look at the document titled “[Sample Curriculum Timelines](https://docs.google.com/document/d/1dGE8yOoadqIBrxweSJlh2L8XF77Mq7sISHI9nfLVYjs/edit?usp=sharing).” This document contains a sample timeline for implementing the curriculum. Though the program was initially designed to be completed in 4 weeks following the AP exam in May, it can be completed at any time throughout the year, over any duration of time. The document consists of an example of a 2, 3, and 4 week implementation.

Don’t worry if you don’t yet understand what all the projects are -- they sound intimidating, but we have plenty of resources to walk you through them. These are example timelines, and you can mix and match our projects any way you’d like.

**The Curriculum**

The curriculum is organized into a series of folders and modules. Below, we explain how to read through them to get familiarized, and link to any files/folders as well.

Begin by taking a look at the presentation titled “[Intro: CS+Social Good](https://docs.google.com/presentation/d/1o8UWkYvYNm6rb1cvh-DlYD90OkRe0sd9tvdnZMPXjUQ/edit?usp=sharing).” This is a presentation that you can use to introduce your class to the program. The slides also have several videos of people and students who have used technology for social impact to inspire students.

Now, take a look at the folder for the “[Design Thinking Project](https://drive.google.com/open?id=0B0IH7_6XUmAnekJRTUVjMXRjblU).” The documents/presentations are numbered in order of how to read/present them. The project is designed to encourage students to design, empathize, and create solutions to real-world problems. Check out the curriculum timelines from before for more details about how to teach the design thinking project.

Next, we have a series of **coding project** folders. Currently, we have two coding projects:

[Classification of Breast Cancer Tumors](https://drive.google.com/open?id=0B0IH7_6XUmAnQ05lOS1vUl9kQWc)

[Refugee Sentiment Analysis](https://drive.google.com/open?id=0B0IH7_6XUmAnTXc3RGZQWGpLS0E)

The folders contain several major resources:

1. A PowerPoint introducing the topic
2. A instructions document for students
3. A zip folder with starter code for the Java project
4. Solution code for the completed Java Project

Notes about the coding projects: The first coding project (cancer classification) is certainly challenging. However, it can be completed entirely using data structures and ideas covered in an AP computer science class. While it’s labeled machine learning, we have complete confidence that you can teach it with some help from us. The second project (refugee sentiment) is more exploratory. Students can choose which parts of the project to pursue in more depth based on what they find exciting.

Then, we have a folder for the [Virtual Reality lab.](https://drive.google.com/open?id=0B0IH7_6XUmAnYktic0NqOUlTSW8) This is a small activity where students watch VR videos and comment on whether they believe or disagree with their ability to create empathy.

Finally, we have a folder, entitled “[Feedback for Iterative Development](https://drive.google.com/open?id=0B0IH7_6XUmAnVm1CSmFvdTRTRWM),” which contains a series of forms/surveys to be sent out to the students before they begin, at the end of every week, and finally at the end of the program. If you send this out periodically, both we and you will get information about how to improve the program, benefiting everyone!

Again, thank you for using our curriculum. Feel free to reach out with any questions at teachcsforsocialgood@gmail.com!