IB Design Technology - Teacher: Eduardo Garcia
Summer Assignment 2022

Hello and welcome to IB DP Design Technology. I look forward to welcoming you personally to the class in the Fall and get started on an amazing two year journey of innovation and designing solutions for a better tomorrow.

To get your "gears" going in the direction of the course I ask that you complete the following short summer assignment:

Please view the videos below and select three of them to work with. Use the technology, processes, and/or systems addressed in the videos to conceptualize a solution to the following problem. The design solution should be feasible or a _speculative design_ solution based on actual evidence, research and science.

"Speculative Design should be an informed projection that brings into question the reality we ground this projection on. Informed means that it's not about making up just any alternative future, present or past but grounding this speculation in prior knowledge, emerging tendencies, existing technologies, and human behaviors. Through creating an alternative reading—set in the future, present or past—the predominant reality is put into question and inherent biases are revealed. This is our very ideal understanding of Speculative Design."   - Circumflex.Studio

Problem

> Fossil fuels are used all over the planet… from powering vehicles, plastics manufacturing, product packaging, to the clothes we wear. The use of fossil fuels is a big contributing factor to greenhouse gas emissions creating the global warming crisis. Choose any industry that uses fossil fuels and propose a design solution that can transform and/or intervene this practice.

TED Talks
- **Anab Jain**: Why we need to imagine different futures - Go to video
- **Jiabao Li**: Art that reveals how technology frames reality - Go to video
- **Neri Oxman**: Design at the Intersection of Technology and Biology - Go to video
- **Rachel Armstrong**: Architecture that repairs itself? - Go to video
- **Rahul Mehrotra**: The architectural wonder of impermanent cities. - Go to video
- **Sam Harris**: Can we build AI without losing control over it? - Go to video

Design Process (present the following in a Google slides presentation)
- **Identify:** Identify an industry that uses fossil fuels and contributes to the problem.
- **Define:** Conduct a short investigation to understand how the industry works and define how it is a problem.
- **Ideate:** From the three videos you selected, identify and state what are some of the problems and solutions they have presented.
    - Ideate and brainstorm several (speculative) design solutions to the fossil fuel industry problem you've identified (inspired by the technologies from the three videos you chose - show and explain the connections from your ideas with the videos)
    - Don't hold back and put any and all kinds of ideas down
- **Model/Prototype:** From your brainstorming, select one of your ideas to make a model or visualization of your design solution
    - The design solution can be a product, system, or service
    - It can be drawings rendering a product concept
    - It can be a visualization of a system that addresses/intervenes the problem
- **Test:** Propose how the solution could be tested for effectiveness or functionality
- **Reflection**:
    - How did the three videos and designers' solutions you chose inspire your idea?

This assignment is due the first week of school.