# Project ARTIFICIAL INTELLIGENCE:

**A Case Study Approach**

**PROBLEM:** You and your team of researchers have been hired by an innovation branch of Google that has been quietly, but diligently working on the AAI (Advancement of Artificial Intelligence) Project. For years, Google has been partnering with MIT (Massachusetts Institute of Technology) and has been financially supporting the engineering of artificial intelligence. However, Google understands that before artificial intelligence can be more broadly useful, there has to be programming that makes these creations think, act and react more like humans. That’s where you enter!

Using a series of case studies (articles, videos, stories etc.) you and your team will be asked to pitch an idea to Google for a prototype that must be able to “push the limits” the way some humans do. Using a series of case studies into the physical, emotional and intellectual realms of pushing limits *as well as* your expertise in the areas of human **motivation, success** and **happiness through challenge** you’ll need to present BOTH your findings and your proposal.

**RESEARCH**: In order to effectively research you’ll need to draw from a series of texts and case studies to determine those qualities needed for a “human prototype” who pushes the limits. *See the next page for texts to choose from.*

**GETTING ORGANIZED:** Working with a team is crucial, especially as part of the research component of this work. You will have several days to complete your research and then move onto both the collective and individual roles in solving this problem.

* Step 1. Determine a note-taking/information gathering strategy. However you do this, remember it’s CRUCIAL to get specific details. That’s what will either make or break you in the end!
* Step 2. Make a 2-day plan for completing your research (see the next page for required texts).
* Step 3. Determine how each member of your team will do some additional research (each person find an additional article/video/story from one of the three spheres of pushing limits.)
* Step 4. Use your research to devise a human-shaped prototype. Conference with me throughout your team’s process.

**DOING THE RESEARCH**: Once you compile your research, there will be further instructions on analyzing it for patterns and how to use it to pitch your ideas to Google. You’ll then get further parameters on your prototype.

***Most importantly…I’m already so impressed by you and can’t wait to see what you come up with!***

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| --- | --- | --- | --- | --- |
| CATEGORY | A+ / A (4) | B (3) | C (2.5) | D/F (2 or 1) |
| Content | All requirements are met and included in the prototype. The prototype skillfully and thoroughly explores pushing limits in all three (3) spheres—physical, emotional, intellectual. | All requirements are met and included in the prototype. The prototype explores pushing limits in three (3) spheres—physical, emotional, intellectual. | Most requirements are met and included in the prototype. The prototype may lack a sphere, or it may lack detail and evidence. | Requirements are not met—items missing. Prototype does not successfully explore the concept of pushing limits. |
| Research/Teamwork | Team members are highly organized, and productive. Team is self-motivated and needs no intervention on the part of the instructor. Research is thorough. | Team members are organized and productive. Team is mostly self-motivated and needs minimal intervention. Research is well-done. | Team members nay be slightly disorganized or in need of instructor intervention. Research may be lacking in detail. | Team members are disorganized and unproductive. Multiple interventions needed. Research is incomplete and lacking. |
| Visual Appeal | The prototype is exceptionally attractive in terms of design, layout, and neatness. | The prototype attractive in terms of design, layout and neatness. | The prototype is acceptably attractive, though it may be a bit messy. | The prototype is distractingly messy or very poorly designed. It is not attractive. |

**PURPOSEFUL RESEARCH**

EVERYONE BEGINS by learning about artificial intelligence.

* Humans Need Not Apply (YouTube) https[://w](http://www.youtube.com/watch?v=7Pq-S557XQU)ww[.y](http://www.youtube.com/watch?v=7Pq-S557XQU)o[utube.com/watch?v=7Pq-S557XQU](http://www.youtube.com/watch?v=7Pq-S557XQU)
* Check out MIT: https://[w ww.csail.mit.edu/](http://www.csail.mit.edu/)
* And *The Washington Post*: <http://online.wsj.com/articles/its-time-to-take-artificial-> intelligence-seriously-1408922644

Pushing PHYSICAL LIMITS

* Kacy Catanzaro of American Ninja Warrior lore. <http://www.esquire.com/blogs/news/kacy-> catanzaro-interview
* Aron Ralston, “Between a Rock and the Hardest Place.” <http://www.outsideonline.com/outdoor-adventure/outdoor-skills/survival/Aron-Ralston---> Between-a-Rock-and-the-Hardest-Place.html
* Free Divers!
  + <http://news.discovery.com/adventure/extreme-sports/5-longest-free-dives-of-all-> time.htm
  + <http://www.redbull.com/cs/Satellite/en_US/Article/Freediver-Herbert-Nitsch-> featured-in-April-2013-Red-Bulletin-magazine-021243322097978

## YOUR OWN RESEARCH

Pushing EMOTIONAL LIMITS

* “The Most Dangerous Game.” <http://www.dukeofdefinition.com/dangerous_game.pdf>
* A few pieces on Ferguson from NPR
  + <http://www.npr.org/2014/08/23/342733988/generation-gap-divides-local-opinion-> on-ferguson-protests
  + <http://www.npr.org/blogs/codeswitch/2014/08/16/340912893/code-switch-roundup-> on-race-policing-and-ferguson
  + <http://www.npr.org/blogs/ed/2014/08/15/340394980/helping-students-make-sense-> of-a-young-black-mans-death-in-missouri
  + <http://janeewoods.com/2014/08/14/becoming-a-white-ally-to-black-people-in-the-> aftermath-of-the-michael-brown-murder/

## YOUR OWN RESEARCH

Pushing INTELLECTUAL LIMITS

* “Reaching My Autistic Son through Disney” <http://www.nytimes.com/2014/03/09/magazine/reaching-my-autistic-son-through-> disney.html?\_r=0
* Alexa Meade: Your Body is My Canvas <http://www.ted.com/talks/alexa_meade>

## YOUR OWN RESEARCH