Iridescent empowers underrepresented young people, especially girls, to become innovators and leaders, using engineering and technology.
Iridescent has two programs that build on one another to help children become engineering & technology innovators.

**Curiosity Machine by Iridescent**
AI, engineering & entrepreneurship for underserved students ages 5-18 & their parents.

**Technovation by Iridescent**
Technology entrepreneurship for girls ages 10-18.

Online platforms provide access to high quality curriculum, training and mentoring—at scale.
Agenda for today

1. Iridescent’s learning approach
2. What is Artificial Intelligence Family Challenge
3. Challenge for today
4. Communication Exercises- Have some fun!!!
5. Work on your project
6. Share out your final product
Our Approach

Providing a systemic, two-generational STEM program, targeting *parents* so the whole family adopts a lifelong learning mindset.
The AI Family Challenge

- World’s largest competition for 10,000 underserved 3rd-8th grade students and parents
- Families work together to learn about and apply AI technologies to solve problems in their community
- ~15 weeks

Why

- Growing ethnic minorities and rapidly advancing technologies will widen the “digital divide”
- Lifelong learner mindsets needed alongside automation
- Workforce development for children & parents
Interest. The Gap. Perceptions of AI.

- ~80% of low-income families claim some familiarity with AI & they also believe AI will replace too many jobs
- 43% of low-income families are interested in learning about AI
- ~25% of children (grades 3-8) in low-income respondents take CS/technology classes
- Low income black families want more technology programs for their children (more so than Hispanic & White families)
60+ sites, 6000+ participants
Goal for today:

Create video to help explain AI concepts and its applications to children

...and HAVE FUN!
How will these be used in AI Family Challenge?
Content help for families
Shared with families & educators to better understand AI related concepts

Ideation Tips
Act as inspiration for families when trying to identify a problem they can solve using AI
“Up-Goer Five”

- Based on xkcd's "Up Goer Five"
Up-Goer Examples

“‘My job is to help people that have ideas (idea-people) to make sure that no one takes their ideas. The ideas that I work with usually are about things that doctors give to people to make them feel better, but I also work with ideas about computers.’

‘It takes a lot of train-food to move a train, but less food for each person on the train than in cars or on buses. If we can work out how to use less train-food, we can help our world live longer.’
Describe your work using only the 1000 most commonly used words.
Upgoer 5 Text Editor:

http://splasho.com/upgoer5/

https://tinyurl.com/googleupgoer5
Google AIY Kits
Vision AIY Kit

https://youtu.be/Y8iQJOjw4S4
Engineering Charades

Try to communicate key engineering concepts using no words at all!
Communicating Science to the Public

Simplify language and concepts

• Avoid scientific jargon that a lay person won’t understand
• Break concepts down - make accessible without dumbing down
• Use relevant analogies and metaphors when possible
Goal for **today**: Create video or poster to help explain AI concepts and applications to kids

...and **HAVE FUN!**
What we’re looking for:

**Video Stories**

- Explaining at least one topic about AI
- Should be understandable by children ages 5-13
- Should be sharable with the general public
What makes a good video?

- No longer than 90 seconds (1.5 minutes)
- Has a good hook
  - Cool or real world application
  - Something flashy that grabs your interest
- Can be shared publicly on the web (no proprietary information)
- Is silly and fun! Shows real people having fun.

Tips:

- Remember to film horizontally, this will look the best online.
- Don’t be afraid to loosen up! Try doing some ice breakers before filming.
- Make it personal! Introduce yourself.
- Pick one topic
Inspiration Video

AAMAZING EARTH FACTS

How do they work?
Example Topics

General:

1. What does the history of AI look like? What are some of the earliest AI inventions?
2. What does the future of AI look like? Why are we hearing more about AI now?
3. What are some inventions that we use everyday that AI has made possible? How has AI made these possible?
4. How does AI help people right now and how will it help them in future?
1. YOUR RESEARCH
2. What is the difference between AI, machine learning, and deep learning?
3. What is machine learning?
4. What is deep learning? How does a neural network work?
5. How does big data play a role in AI?
6. What are rule-based systems?
7. How does image recognition work?
8. How does speech recognition work?
9. What is natural language processing?
Telling your story

1. Present your idea to your neighbor
2. Use the rubric to give feedback - 1.5 min - 2 min, hook, no jargon, authentic explanation, analogy/metaphor, personal story, fun!
3. Improve story
4. Film once for your neighbor
5. Use rubric and iterate
6. Film final
7. Upload onto google drive https://tinyurl.com/ydgesoh3
Thanks!

Please share any photos from your session and tag us:
Facebook - @CuriosityMachine
Instagram - @curiositymachine
Twitter - @curious_machine

Don’t forget to tag us:
#AlTogether

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