EcoGame

Introductory Information

Problems:

- People feel distanced and distrustful of the global food system. Alternatives, either greenwashed or preferable, are more expensive and less accessible.
- Packaging waste, emissions, and chemical runoff from agriculture and the food industry have a devastating impact on our environment.
- Though the things we need to grow our own food are all around us, most people don't know what to do and it requires a lot of coordination that would be complex to financially incentivize.
- Phones are more interesting to kids than school or learning how to grow food.

Solution:
EcoGame is an educational activity worksheet and online game, playable for grade 5 and up, to learn & implement ways to grow a local, sustainable food system, using their phones to chart resources & actions. The activities of EcoGame culminate in an open-source local food franchise called BYTE: BackYard-to-Table Experiences.

Proposal Information

EcoGame is an activity series that guides players to grow resources together, from the ground up. Each player accesses the activities via an online interface or a worksheet with themed icons featuring QR codes, each linking to a form for posting its activity, such as: sharing about what kinds of plants they want to grow, showing places to grow plants, charting a seed bank, remediating soil, sowing seeds, planting plants, experimenting with growing strategies, checking on the plants, and harvesting crops. Each activity form includes selecting a location, defaulting to the player's GPS for ease of completion, that adds to a map that can be read & graded by an instructor and other players scanning the EcoGame map. As each EcoGamer maps their work to be found by their neighbors, they empower collaborative local growing movements.

By collecting reports on a map, we can better learn about the regional trends of plant interests, new plant facts and growing methods. For example: while playtesting this game, I discovered there are many tropical fruit trees growing & producing edible fruit in temperate zones, well outside their designated USDA hardiness zones. The growing conditions & methods are included in their notes, so player in similar regions can easily recreate these experiments to provide food and help stabilize their local water cycles and microclimates.

EcoGame activities are designed to provide new, perspective-shifting experiences for their players. For example: a featured activity in EcoGame is implementing Biochar, a form of bioremediating compost, made with charcoal and diverse inoculants, that has been applied extensively by indigenous peoples and

modern researchers to build safe, fertile, moisture-retentive, healthy soil. The use of biochar has been scientifically proven to increase seeds' germination rates and break down natural & manmade herbicides, which improves the chances that players' seeds sprout even in challenging conditions, so they feel a sense of reward and will keep sowing more seeds.

The EcoGame activity series produce an informal franchise, BYTE (BackYard-to-Table Experiences), a local, organic fast food chain with a map of articles about how the food was grown. BYTEs have been demoed with 100% local open source zoodles and "green tacos," that received phenomenal praise from their consumers about the rich flavors of their fresh homegrown produce.

The map platform used to build EcoGame is called LeelaMaps, a free map notes platform with form templates and flexible categories. LeelaMaps notes can consist of text, links, images and embedded videos, which enables users to convey rich information about their EcoGame experiences.

Remaining work:

- Finish editing activity forms
- Playtest activities with homeschooling groups
- Develop online EcoGame activity page that links to forms & map
- Produce tutorial videos
- Develop educators' guide & curriculum
- Translate EcoGame into other languages
- Offer educators' kit and videochat workshop to schools, science education groups, and other educational institutions
- Continue development of the map, including a crossplatform app version
- Additional activity series for mapping emergency resources, sustainable businesses, and environmental appreciation
- Develop a BYTE food franchise that implements the network of local growers that are charted and empowered by EcoGame players

Path to Impact

The vision of EcoGame's impact is to provide nutritious, organic food that is grown locally to all consumers.

With a large scale of use, the map platform will need to be upgraded to handle more data and implement AI to perform content analysis. To better distribute educational load, "EcoGame Masters," trained EcoGame facilitators, can run & support programs in their region to ensure that players produce successful BYTEs.

Once achieving a critical mass of players who map information & resources with EcoGame, the next step is to organize BYTE food popups and restaurants where players can apply to demo their local food creations.

These steps first require developing a compelling product, which is crafted through playtesting with prospective players and producing fun & helpful guide videos that introduce players to the activities involved in growing plants to feed their communities.