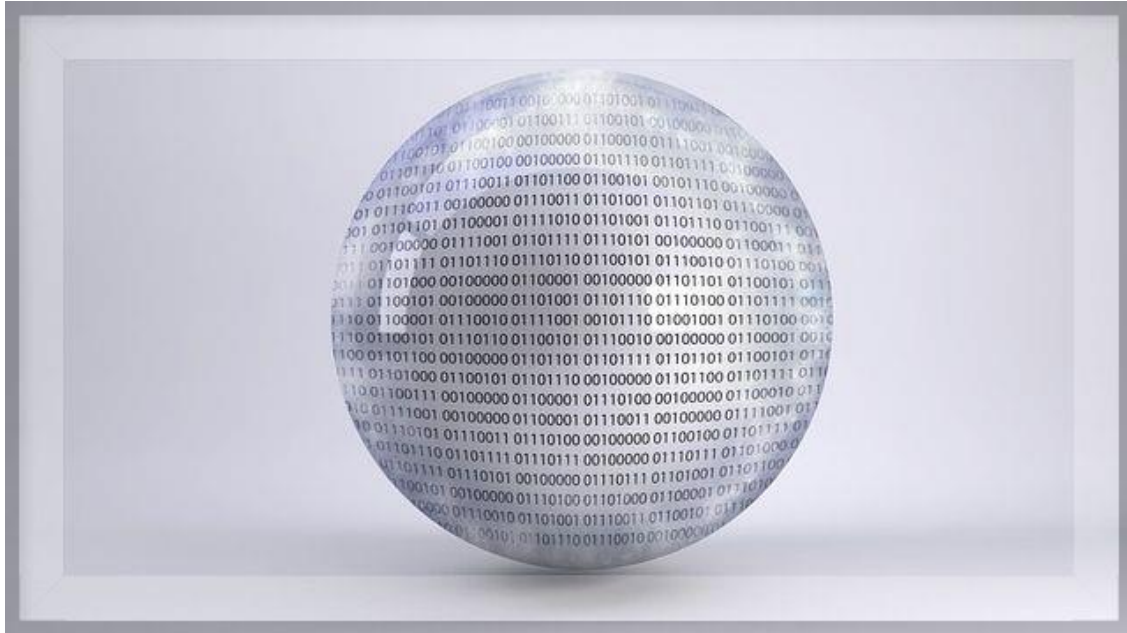# PROPOSAL FOR GLOBAL CLIMATE CHANGE SYSTEM



With the negative effects of climate change rapidly accelerating, a global computer system that is universally accessible would allow access to data across different disciplines, offer instant global communication, conferencing, and information sharing, and provide an inclusive and comprehensive platform to access other eco-friendly applications, systems, and platforms vital to all stakeholders, from citizens and scientists to local and world leaders.

A global system would provide structure while also being simple and flexible, offering features and functionality at four different stakeholder levels: (1) individuals and households; (2) communities; (3) nations; (4) the global community. There are many environmental and climate-friendly applications and systems that are already being utilized by individuals, communities, countries, and the international community. For example, systems to manage road, sea, and air transportation to reduce emissions are already in use (Mehta). A system using global satellite imagery to detect high methane emission sites has been developed (Katz). There are monitoring systems, weather systems, and various other computer systems designed to protect the environment and promote sustainability. These systems could be linked to a global system that is designed to educate and enable individuals and decision makers alike to implement change and reduce greenhouse gas emissions, mitigate the effects of climate change, and build a sustainable future.

The community, state, national and global webpages could post one or two significant indicators, such as CO2 emissions and the air quality index, to

highlight daily successes or trends; it could also highlight updated news and ways for everyone to become involved. If we all could track daily progress and feel that our efforts were making a difference, we would become more invested in living a sustainable lifestyle and we could move the needle together!

If decision makers and leaders could analyze data, implement change, track progress, and make a significant difference using a free and accessible global system they would become part of the solution. Daily global news updates could include successful solutions and spotlight areas in need to coordinate efforts as the effects of climate change continue to accelerate.

Deep learning algorithms could be included to analyze collected data and calculate the most efficient ways to achieve greater home, community, national and worldwide sustainability. The system would need to be transparent and secure, and collect data only with explicit permission. We can successfully fight climate change only if we join forces. With a global climate change system, we can digitally join forces as a worldwide community.

## Home App

**Inventory** of items by room or type. Plan purchases, donate unused items.
**Utilities**. Track usage over time. Set goals to reduce consumption.
**Transportation**. Track miles and usage. Set goals to reduce consumption.
**Shopping.** Create lists and save receipts. Eliminate single-use items.
**Budget.** Calculate monthly expenses. Set goals and track savings.

Links included to eco-friendly webpages, such as the EPA's safer cleaner search, eco-friendly home and lawn care, ways to reduce utility consumption, healthy eating and recipe websites, and the sustainable community website.

## Community (& Business) App

Libraries to be offered grants to host events on sustainability, e.g. guest speakers, documentary film nights, and educational talks or demonstrations.* Libraries can also use grants for a section of pre-selected books and movies, such as the One Planet series. Logon credentials for community website/app issued to library patrons. All content maintained and updated by community liaisons; community and business liaisons to manage sustainable community websites and programs. *Due to COVID-19, virtual events can be held.

**Barter board**: Post items or services for barter. Library-hosted barter events.
**Board of locally produced food (dairy, vegetables, meat, etc.), eco-friendly products (toys, fashion, home, etc.), flea markets, and farmers markets.
Board for metropolitan buying clubs, co-ops & CSAs.**
**Ride-sharing board** for commuting to work or school.
**Recycling board:** list of local recycling centers and drop offs, including

pharmaceuticals, electronics, metal, glass, and textiles.

**Green Living Lottery**: upload or scan entries. Small monthly giveaways, big yearly prize. Entries given for attending library events, checking out pre-selected books/movies, or setting & reaching goals on the home app.

Offer **small business loans** for businesses that sell sustainable or eco-friendly products or services, including bulk-buying stores and recycling centers.

## Educational Games for Children

Free online games for schools and families. Children answer questions about plants, animals, ecosystems, and sustainable living.

Build a **family farm** and learn about its animals and plants, e.g. sheep, chickens, goats, cats, mice, and local crops.
Create a **tropical island** and learn about its animals and plants e.g. monkeys, birds, lemurs, turtles, geckos, banana trees, and coconut trees.
Create a **Christmas tree farm** and learn about its animals and plants, e.g. moss, ferns, pine trees, squirrels, mushrooms, reindeer, and arctic foxes.
Create a **Brazilian rainforest** and learn about its vegetation and animals, e.g. spider monkeys, toucans, sloths, anteaters, cocoa trees, and palm trees.
Create an **Asian rainforest** and learn about its vegetation and animals, e.g. orangutans, flying lizards, swallowtails, clouded leopards, and teak trees.
Create a **bamboo forest** and learn about its flora and fauna, e.g. giant pandas, red pandas, flying squirrels, bamboo, ferns, and grasses.
Create a **coral reef,** stock it with marine life, and learn what it needs to thrive.
Build an **eco-friendly town**. Create and stock a farmer's market or general store. Construct a school, fire station, offices, hospital, recycling center, etc.

## Educational Games for Teens & Adults

**Eco-friendly car manufacturer**. Choose a car make/model to manufacture.
**Ethical fashion company**:  Manufacture jeans or T-shirts.
**Eco-friendly electronics company**: Manufacture cell phones or computers.
Plan, build, and manage an **eco-city**.

## State App

Daily environmental updates, including impacts to animals, marine life, and ecosystems statewide; additionally, science and news stories on land, water, and air pollution across the state, including progress made. Directory of and links to state organizations, including health information about the effects of climate change and environmental hazards. News on local and statewide

environmental legislation and sustainability initiatives. Climate change impact maps by city, with links to environmental organizations/projects, including ways residents can learn, donate, participate, and make an impact.

## National App

Daily climate updates, including impacts to animals, marine life, and ecosystems nationwide. Daily science and news stories on land, water and air pollution nationwide, including progress made. Directory of/links to national organizations, e.g. CDC or EPA, with health data about the effects of climate change and environmental hazards. News on local and national environmental legislation, including state and national sustainable innovations and initiatives. Climate change projection and impact maps by state, with links to environmental organizations/projects, including ways citizens can learn, donate, participate, and make an impact.

## Global App

Daily climate updates, including impacts to animals, marine life, and ecosystems globally. Science and news stories on land, water, and air pollution around the world, including progress made. Directory of and links to international organizations, e.g. UN or WHO, with health data about the consequences of climate change and related environmental hazards. Information included about resources and funding. News on international climate change legislation. Science and news stories on national and global sustainable innovations and initiatives. Climate change projection and impact maps by country. Links to NGOs, initiatives, and international projects where organizations and countries can donate, participate, and make an impact.

### References

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