EARTH COOLER

Nasa Space APPS Challenge
Moron.
Challenge: "Warning planet, Cool Ideas."
Team: Um Challenger

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Introduction:

The current warming trend is of particular significance because most of it is extremely likely (greater than 95 percent probability) to be the result of human activity since the mid-20th century and proceeding at a rate that is unprecedented over decades to millennia.[1] https://climate.nasa.gov/evidence/

Global warming causes of changes in the frequency and intensity of climatic events. These events generate situations that will require innovative ways to face productive situations and life strategies that will demand new habits in the population.

Earth's global surface temperature in 2018 was the fourth warmest since modern recordkeeping began in 1880, according to an analysis by NASA.

Global temperatures in 2018 were 1.5 degrees Fahrenheit (0.83 degrees Celsius) warmer than the 1951 to 1980 mean, according to scientists at NASA's Goddard Institute for Space Studies (GISS) in New York. Globally, 2018's temperatures rank behind those of 2016, 2017 and 2015. The past five years are, collectively, the warmest years in the modern record.

Recent studies cited by Stern (2000) show that 47% of greenhouse gas emissions into the atmosphere depend on individual decisions that people make. (Corraliza, Berenguer, Moreno y Martín, 2003.

Psychosocial intervention programs are required, which include the modification of decisive patterns of social organization, lifestyle in developed societies and human behavior.

There is a substantial difference between the concern for the immediate space where a person lives and the perception of degradation of the planet, because a general measure of environmental concern represents only a fragmentary knowledge of the subject's environmental reality (Gooch, 1995)

Climate change consequences are experienced by the citizens in different ways. Farmers suffer flooding, drought or erosion through lost crop yields or reduced meat or milk production. Urban citizens suffer UV rays on their skin, breathe air with GG, drink water contaminated or lack of water. Temperature elevation causes a higher cost of cooling. Excessive urbanization causes water logging, higher temperatures, and low heat-trapping GG.

Public Institutions dedicate a lot of resources to arrive compromises between countries and corporations to mend 53 % of greenhouse gas emissions into the atmosphere. But as 47% of greenhouse gas emissions depend on individual decisions. Individual awareness is the basis of habit modification.

Objectives:

- Raise awareness among people about their own impact on the effect of climate change.
- Integrate information from various platforms in an app that contributes to individual and collective awareness.

Proposal:

Develop an ***awareness campaign*** using a specially designed application called ***"Earth Cooler"***.

The app will integrate the following platforms:

SEPA: http://sepa.inta.gob.ar/productos/

GLAM: Global Agriculture Monitoring http://pekko.geog.umd.edu/glam/argentina/

Google Earth Engine (NDVI, NDWVI): https://explorer.earthengine.google.com/#workspace

Monthly measurements: https://climate.nasa.gov/

Nasa´s Goddard Institute for Space Studies: https://climate.nasa.gov/

Atmospheric Infrared Sounder (Airs): https://climate.nasa.gov/

The app´s code is in the following link: https://github.com/IngAgrMablanco/Team-Bio-challenge/blob/master/apk.rar . The app has a fantasy "Climate" name in the code, the right name is "Earth Cooler"

Brief: "Earth cooler"

Idea:

Design and construction of an app that not only impacts with data on global warming, but also provides support that contributes to the mitigation of greenhouse gases and recommends actions that adapt to life in a changing, more unstable climate.

Target:

Men and women 18 to 50 years old. The lower middle class, middle class, upper-middle class, and upper class. People with secondary / university studies. People who have contact with nature, who understand the problem of climate change and assume a commitment to it. People who are interested in carrying out or who already carry out activities to reduce their impact on the environment.

Objective:

- Achieve application downloads.
- Raise awareness among people about climate change through an application that shows problems and offers solutions on the site of interest.

How it works?

To Design and construction an app that not only impacts with data on global warming but also provides the support that contributes to the mitigation of greenhouse gases and recommends actions that adapt to life in an unstable climate needs to combine information of different platforms.

Users can interact with the content and provide their own data.

As it works with a GPS, the user can find his places and recognize how environments have changed through integrated information of the designed platforms.

Users can also leave their comments and receive warnings and advice about how to mitigate or adapt.

Warnings are in three levels: **Red:** risk of danger; **Yellow**: prevention; **Green**: sustainable.

Users can be farmers or urban citizens, warnings and advices are adequate to every situation.

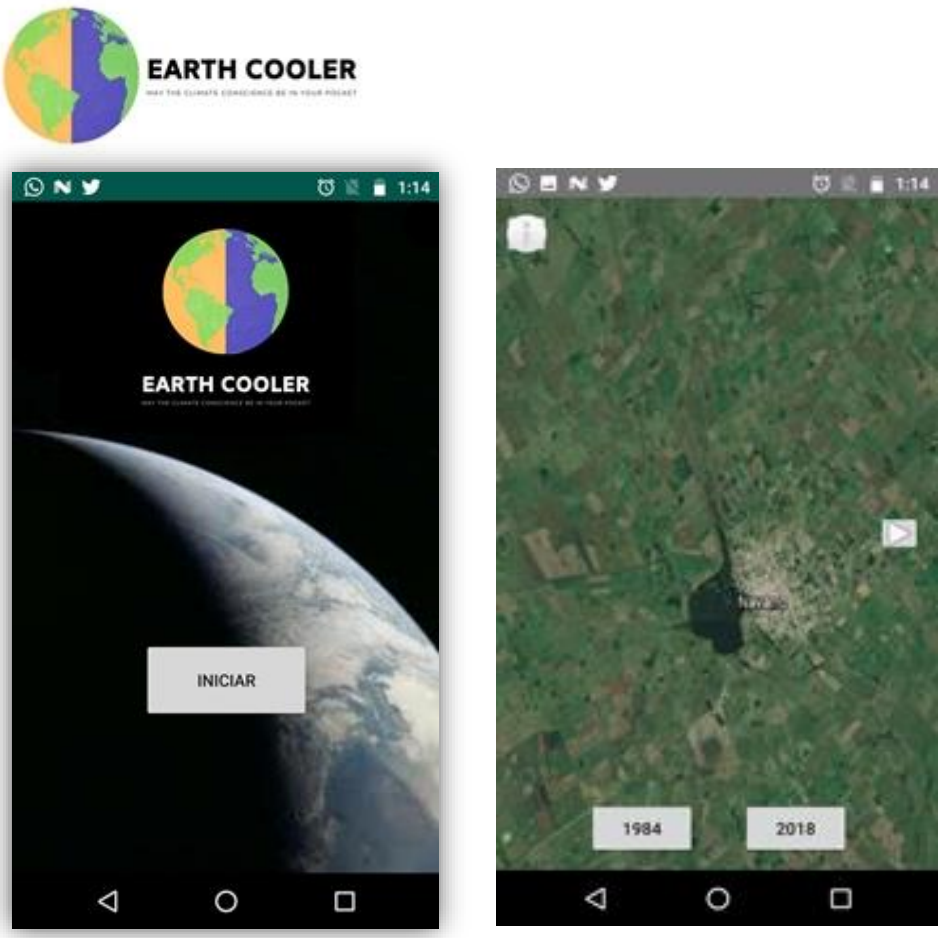

Figure1: Cover Page and a location, in the app.

Concept: "May climate conscience be in your pocket"

Image:

Figure 2: Image of the Earth Cooler logo.

References:

Gooch, G.D. (1995). “Environmental Beliefs and attitudes in Sweden and Baltics States.”27, 513-539.

Stearn, P.C. (2000). Toward a coherent theory of environmentally significant behavior. Journal of Social Issues, 56, 407-420.

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