

The role of applications technology on Environment Protection and organization development.

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Abstract:

No one denies the role of digital economy in the development of organizations in a way that is compatible environmental protection. There are several theories which support the development of organization but there are also some studies to save our natural environment and protect the humanity from the bad economic growth impacts, from the negatives effects of using new technology witch in the organizations. But, the solution can be also by using this technology such as many daily applications.

The designers and developers of apps started to ask users what they daily needed and if we search we will find that a majority of applications designed in order to decrease the costs and increase the profit, that means, to use the natural resources more efficiently and take care of the environment we live in.

The present paper will focus on this technology and will take some important applications which contribute to protect the environment and natural resources indirectly.

Keywords: development of organizations ,environment and resources, technology of applications

ملخص:

لا أحد يُنكر دور الاقتصاد الرقمي في تطوير المنظمات بالشكل الذي يتماشى و حماية البيئة. هناك الكثير النظريات التي تدعم تطوير المنظمات و لكن هناك أيضا دراسات للحفاظ على بيئة الطبيعية و حماية الإنسانية من الآثار السيئة للنمو الاقتصادي و من التأثيرات السلبية لاستخدام التكنولوجيا الحديثة في المنظمات. و لكن قد يكون الحل أيضا في استخدام هذه التكنولوجيا كالعديد من التطبيقات اليومية.

انطلق المصممون و المطورون للتطبيقات من الاستفسار عن الاحتياجات اليومية للمستخدمين و إذا ما بحثنا لوجدنا أن غالبية التطبيقات قد صممت لتخفيض التكاليف و زيادة الأرباح، ما يعني استعمال الموارد الطبيعية بفعالية أكبر و العناية ببيئة حياتنا.

يركز الورق الحالي على هذه التكنولوجيا المساهمة في حماية البيئة و الموارد الطبيعية بشكل غير

مباشر.

Introduction:

Change is observed not just in the professional front but also in our personal life. The change in organization has become inevitable and there are many theories and approaches to changes, perhaps the Kotter's theory is the most famous.

Environmental protection and natural resources have become the focus of attention for individuals and organizations; this is because the earth is experiencing severe climate changes, most importantly global warming which menaces all of humanity.

Industrialization, depletion of natural resources, misuse of new technology have all contributed to climate change, in other hand, there are eco-friendly technology which can help preserve the environment through energy efficiency and reduction of harmful waste. The technology of application can be one of these initiatives directly or indirectly.

In the technology world, the creation of applications and her fast evolutions are the most interesting at the majority, it will be used by smart device users. Applications today are able to run on a diverse set of operating platforms, so the designers and developers focus to ask users what they needed. From there, application design became more task oriented.

In a time where climate change becomes a more pressing issue, we must not deny that are technological contributions which can play a positive role. There are applications designed directly to preserve the environment and other applications geared to serve the individual in his daily life and have a positive impact on the environment, so we ask the following question:

How do some daily applications contribute to change our life and save our natural environment?

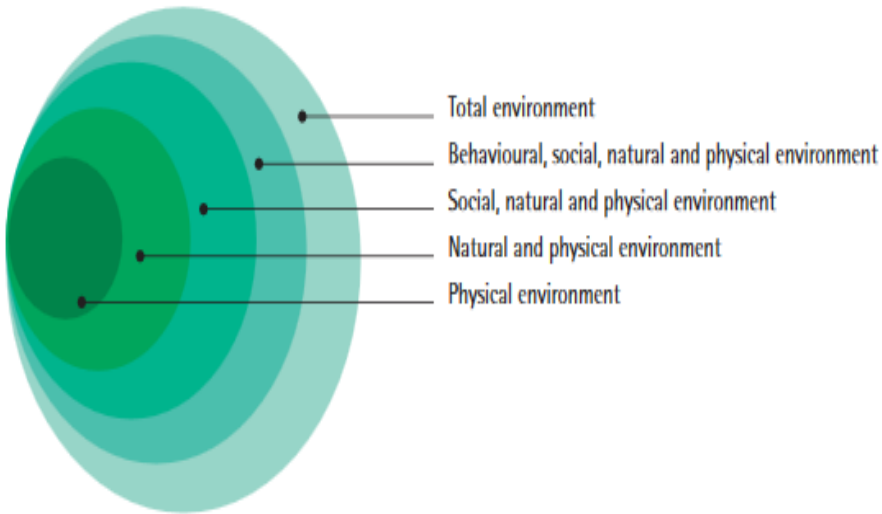
In this article we will mention some apps that we can use it every day to reduce energy use and conserve natural resources such as water and food.

1- Environment and natural resources:

Since man was found on this earth, he depends in his life on the environment and its natural resources, the phases of the historical sequence have come in the form of an interaction between three elements: man, technological progress and the environment.

There are many definitions of environment, for example the organization of oecd define the environment as” a totality of all the external conditions affecting the life, development and survival of an organism.”¹ Others see that “the environment is all the physical, chemical and biological factors external to the human host, and all related behaviours, but excluding those natural environments that cannot reasonably be modified. This definition excludes behaviour not related to environment, as well as behaviour related to the social and cultural environment, genetics, and parts of the natural environment.”²

FIGURE 1 DEFINITION OF THE ENVIRONMENT ³



¹ - <https://stats.oecd.org/glossary/detail.asp?ID=813> 7/8/2019.

² - https://www.who.int/quantifying_ehimpacts/publications/preventingdisease2.pdf»
what is the environment in the context of health?

Figure shows one way to represent the environment, from the most inclusive to the most restrictive definition (Smith, Corvalàn and Kjellström, 1999)¹

United Nations has created a special environmental program "The United Nations Environment Program (UN Environment) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment"² and the "World Environment Day is the United Nations most important day for encouraging worldwide awareness and action for the protection of our environment (this year, join us to help Beat Air Pollution)"³

2-Climate change:

Climate change is a change in the usual weather found in a place. This could be a change in how much rain a place usually gets in a year. Or it could be a change in a place's usual temperature. "Climate change is also a change in Earth's climate. This could be a change in Earth's usual temperature. Or it could be a change in where rain and snow usually fall on Earth."⁴

NASA defines climate change as: "a broad range of global phenomena created predominantly by burning fossil fuels, which add heat-trapping gases to Earth's atmosphere. These phenomena include the increased temperature trends described by global warming, but also encompass changes such as sea level rise; ice mass loss in Greenland, Antarctica, the Arctic and mountain glaciers worldwide; shifts in flower/plant blooming; and extreme weather events."⁵

Climate change and her impacts have occupied many researchers and scientists, so they made an effort to find out their causes "Many things can cause climate to change all on its own. Earth's distance from the sun can change. The sun can send out more

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https://www.who.int/quantifying_ehimpacts/publications/preventingdisease2.pdf;
what is the environment in the context of health?

² - <https://www.unenvironment.org/about-un-environment>

³ - <https://www.unenvironment.org/explore-topics/climate-change> 7/8/2019

⁴ - <https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html> ; last updated: Aug. 7, 2017; Editor: Sandra May

⁵ - <https://www.wired.co.uk/article/what-is-climate-change-definition-causes-effects>

or less energy. Oceans can change. When a volcano erupts, it can change our climate and most scientists say that humans can change climate too. People drive cars. People heat and cool their houses. People cook food. All those things take energy. One way we get energy is by burning coal, oil and gas. Burning these things puts gases into the air. The gases cause the air to heat up. This can change the climate of a place. It also can change Earth's climate.”¹

Scientists think we can do things to stop the climate from changing as much. You can help by using less energy and water. Turn off lights and TVs when you leave a room. Turn off the water when brushing your teeth. You also can help by planting trees. Another way to help is by learning about Earth. The more you know about Earth, the more you can help solve climate problems.²

3- Applications technology:

A mobile application is a software program designed to run on smart phones, tablet, computers and other...according to Wikipedia, a mobile application is a computer program or software application designed to run on a mobile device such as a phone, tablet or watch.

When businessman, like Jack Dorsey(one of the founders of Twitter) or Brian Chesky (one of the founders of Airbnb) began developing their applications more than 10 years ago, it was difficult Finding a mentor to help them get up in their companies because this kind of experience was fairly recent, and was harder for people like Zuckerberg (who founded Facebook in 2004). However, with the vast number of unique startups (Unicorn) in at present, any new businessman can benefit from previous experiences of those companies.

¹ - <https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html>

² - <https://www.nasa.gov/audience/forstudents/k-4/stories/nasa-knows/what-is-climate-change-k4.html>

Projects such as Facebook, Twitter, or even Instagram and WhatsApp initially had to develop their own software architecture in person - creating programs to streamline data flows to and from servers to ensure the app works better,.. (also develop special algorithms for search and playback of content). Today, with cloud storage providers, such as Amazon's AWS, Google's Firebase, and Microsoft Azure, developers can get a flexible server that can automatically adjust resources according to usage ratios. With a few lines of code, you can create an application with a powerful login system, or to store and update data for all users, which means less cost and effort.

At present, ICT offers potential to improve the effectiveness of the World Bank Group's operations, by allowing widespread tendering, electronic document management, and electronic authentication and logging of all transactions, e-procurement can substantially reduce the opportunities for corruption.¹

With everyday complexity, technical solutions had to be provided to reduce a lot of problems by creating new applications that help the individual in their daily lives, in an easier way.

These applications have positive or negative effects on the environment, but in this article we focus on the applications used by the individual, but they serve the environment indirectly.

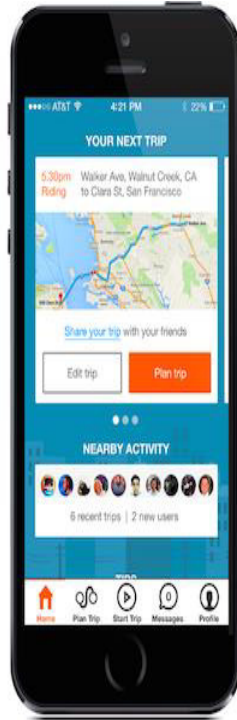
Developers have created an array of apps that help us and you pay more attention to the role that your every day actions play in big issues like climate change. These apps can help you understand and protect the environment and guide you toward the small steps you can take each day to take more eco_friendly action and become more aware of your impact on the earth.

- Carma Carpooling:

Carma Carpooling helps you find near by people to share your commute with so that you can reduce traffic, emissions and even cut the cost of your trip. Riders pay the driver to share the cost of the commute, and carma's website claims that carpooling with its platform is often cheaper than catching the bus users can add credit to their accounts by making a secure payment with a credit card.85% of what riders pay goes directly to the driver and drivers can opt to give free trips by adding people to their favorites in the app. Their slogan

¹ - World Bank Group, information and communication technologies, 2002; page 38.

”save time and money, help the planet and meet great people going your way”.¹

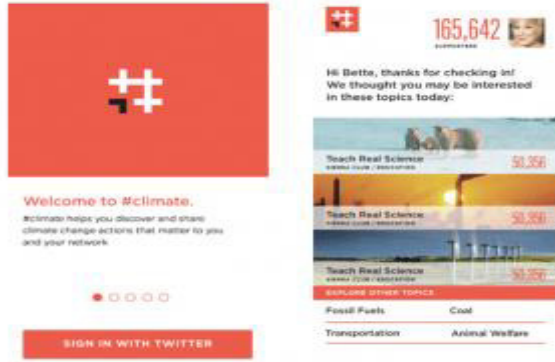


- #Climate:

#Climate helps you discover and share actions that you can take against climate change. The platform is designed to unite “vital, tangible, climate_saving solutions from the leading climate orgs with the most thoughtful, impactful influencers”. You can build a profile in the #Climate app specifying the topics you’re passionate about. When you log in to the app, you’ll see suggested actions personalized for you.

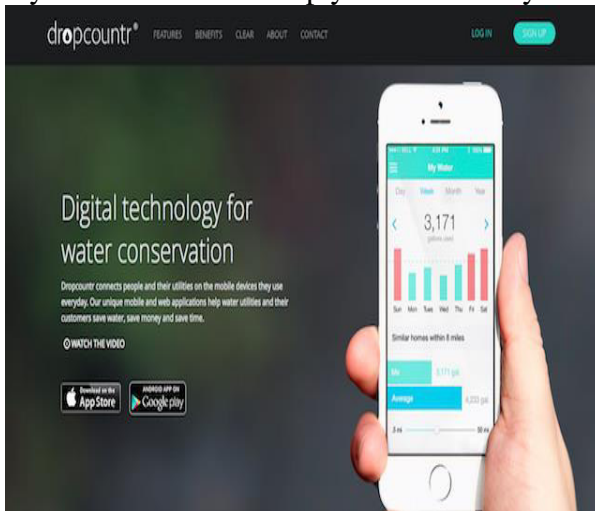
You can choose an action to learn the intended impact and the details you’ll need to take part. You can track your progress on the platform with metrics like the number of supporters you’ve recruited, the count of creations you’ve inspired, and the number of shares you’ve caused.

¹ - <https://climateprotection.org/carma-carpooling/> 05/08/2019



- Dropcountr:

Dropcountr enables you to conserve water by connecting you to your water utility company via your smart phone. Your water company can send customized drought and water budget messages, or notify you of leaks. You can see how much water you use and compare you use to that of users like you. The app will not only show you your current water consumption but also help you set a reasonable water budget to conserve water. You can track your water consumption throughout the day, week, month or year and drop countr also connects you with rebats to help you save money.¹

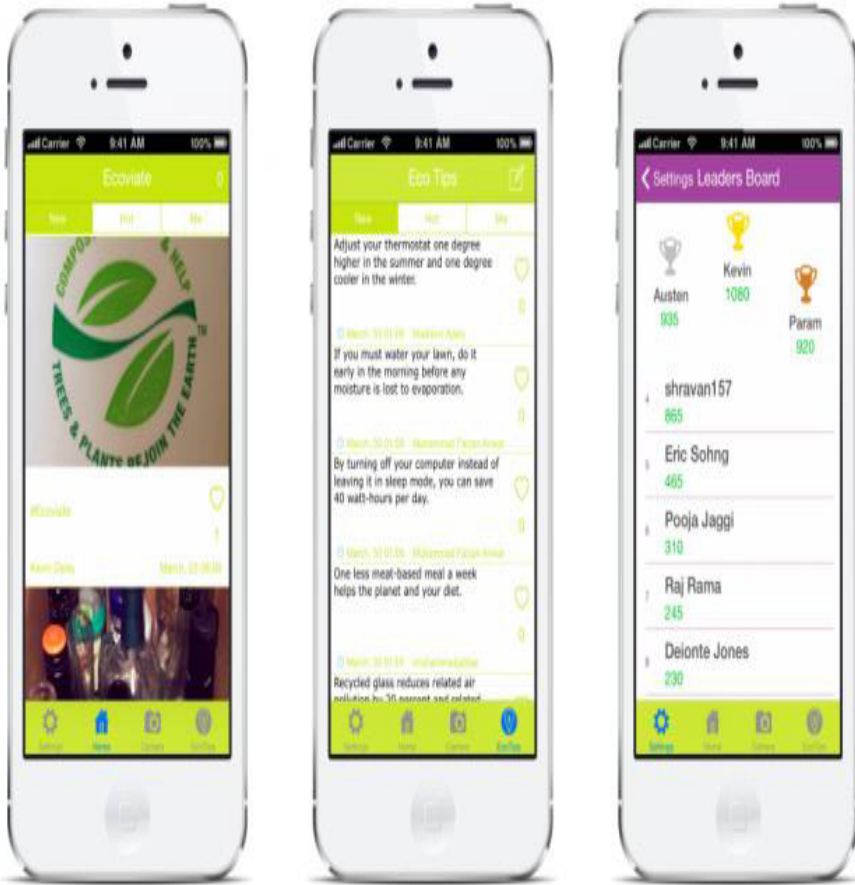


- Ecoviate:

Designed by teenager Param Jaggi, Ecoviate envisions a world "where environmentalism is a natural extension of the human experience. Ecoviate is a newsfeed of environmentally friendly activities and posts on eco-friendly tips and products that help you

¹ - <https://www.thecrossroadsproject.org/sources/dropcountr> 01/08/2019

save energy, conserve water, and in other ways reduce your impact on the environment.¹



- GoodGuide

In my opinion, “Good Guide”, is most important app in this paper, “it provides consumers with product information to help guide more informed buying decisions”.² It helps you find safe, healthy, green and ethical products by scanning the products around your home, and it tells you which ones are the most eco-friendly rated.

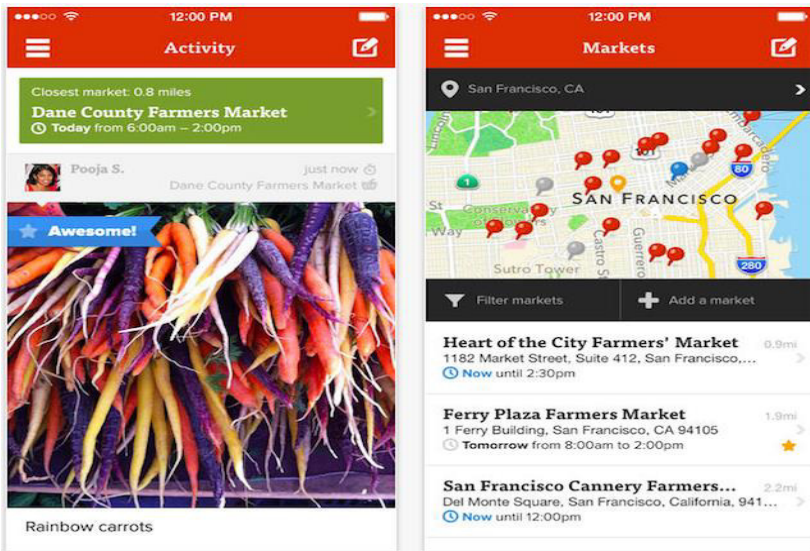
¹ - <https://www.thecrossroadsproject.org/sources/ecoviate> 01/08/2019

² - <https://www.goodguide.com/about#/> 01/08/2019



- Farmstand:

Farmstand helps you discover locally grown food from more than 8700 farmers markets around the world. With the app, you can find the closest market and see what's going on at farmers markets nearby. It shows you information on each market such as open times, directions ...” We source the best ingredients seasonally and cook up a plant-powered menu from scratch that is 80% veggie, 5% sustainable fish and 15% meat”.¹

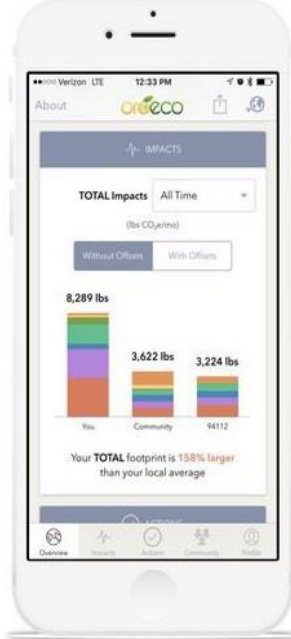


- Oroeco:

Oroeco enables you to track and reduce your impact on the environment. You can see how the choices you make in each area of your life from how you live, what modes of transportation you choose

¹ - <https://www.farmstand.co.uk/our-story/> 01/08/2019.

and where you shop_ connect to climate change. The app helps you save money and the planet with customized actions on how you can improve the carbon foot print of each area.



***In the following lines we briefly mention other applications:**

-Too Good To Go:

With this app, you can ask restaurants to buy food that is not sold during the day at discounted prices.”Tons of food are lost all along the food chain, from field to plate. And it's not just the food that's wasted, but all the resources that made it possible to produce it-

from water to farmland, to work, energy and everything. These are all reasons that make food waste responsible for 8% of greenhouse gas emissions. Roughly, if the waste was a country, it would be third on the podium of the most polluter behind China and the United States”.¹

- Seafood Watch

“Recommendations help you choose ocean-friendly seafood at your favorite restaurants and stores. Our redesigned app makes it easier than ever to get the latest recommendations for seafood and sushi, learn more about the seafood you eat, and locate or share businesses that serve sustainable seafood.”²

. GreenMeter

Even if you can't reduce your amount of commutes, GreenMeter will help you drive more efficiently. “GreenMeter is an app for the iPhone and iPod Touch that computes your vehicle's power and fuel usage characteristics and evaluates your driving to increase efficiency, reduce fuel consumption and cost, and lower your environmental impact. Results are displayed in real time, while driving, to give instantaneous feedback.”³

-share the meal

It is based on a slogan *Together we can end hunger!*
« ShareTheMeal is the charity app from the United Nations World Food Program that allows you to feed a hungry child with a tap on your phone.”⁴

. EcoCharge

This app alerts you when your phone is fully charged so you can take it off the charger. It prevents you from wasting energy on a fully charged phone. (currently, URL was not found⁵ but it's an important idea).

. Eco-Dice

Roll the dice on your screen to receive daily tasks including bring your own shopping bag to the store or turn off all the lights in the house before you leave.

¹ - <https://toogoodtogo.fr/fr> 3/8/2019

² - <https://apps.apple.com/us/app/seafood-watch/id301269738/> 04/08/2019.

³ - <http://hunter.pairsite.com/greenmeter/> 04/08/2019

⁴ - <https://apps.apple.com/us/app/sharethemeal/id977130010/> 4/8/2019

. Light Bulb Finder¹

App helps you to find light bulbs! Having the incorrect bulbs or ones that take up unnecessary amounts of energy can easily be replaced through suggestions from this app.

In 06/2014, the committee of London assembly shows the environmental impact of food waste as follow:²

*Reducing food waste is crucial to achieving environmental benefits. Food waste accounts for around 20 per cent of household waste each year in the capital. The Waste and Resources Action Program (WRAP) estimates that 890,000 tonnes of food from households and businesses is thrown away per year in London, of which 540,000 tones is avoidable.

*WRAP estimates that the cost to London boroughs of disposing of its avoidable food waste is over £50 million per annum. A number of food reduction initiatives already exist in London, for example WRAP's Love Food Hate Waste campaign, which runs and promotes activities to change consumer behaviour.

The website of WSP classified top 20 apps smart phone that support green living To create our top twenty, "they used a scoring system based on three factors":³

1. The number of worldwide downloads. Green or not, the more times an app's downloaded, the more phones it's on, the greater potential for impact.

2. Some apps are downloaded, then deleted. Others are used once and that's it. Others are the go to apps regularly used far and wide. We looked at the app functionality, average app rating across both formats, and also user comments to gauge how useful and used each app is.

3. Green impact. We (WSP) scored each app according to the potential environmental impact of a British user using the app. We defined impact broadly and focused principally on the positive personal impact that the app has. Apps with no definable green impact scored zero (Angry Birds). Apps which have a large impact scored the maximum impact (Good Fish Guide).

The 20 apps - - are ebay, kindle, Skype, Seafood, Watch, Google Maps, Freecycle, Trash Nothing, Air BNB, Moovit, City

¹ - <https://appsfortheenvironment.devpost.com/submissions/4571-light-bulb-finder> 04/08/2019

² - Environment committee, household food waste in London, 9/7/2014.

³ - WSP, apps for the environment, octobre 2014 .

Mapper, Gumtree, Wallapop, Good Fish Guide, Love food Hate waste, Leftover Swap, Fuel Monitor, Spotif, My Home, Making of Making, Seasons¹.

Conclusion:

Several applications geared to serve the individual in his daily life and have a positive impact on the environment.

Developers have created an array of apps that help us pay more attention to the role that our every day actions play in big issues like climate change. These apps can help us to protect the environment and guide us toward the small steps we can take each day to take more eco_friendly action and become more aware of our impact on the earth, in this paper we have mention some important apps such as "goodguide".

The daily reliance on technology and applications over the last decade has opened the door for ideas for new projects in several sectors; we hope in the future that the new apps can reduce the negative effects of climate change.

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