Science affects all of us, *Science needs* all of us.

The way we produce goods and provide services as a society is changing. We are not just consumers anymore – we create videos, music, art, software, hardware and much more, because the digital era has empowered us to do so. It's easier than ever before to be a producer.

So why don't we apply this model to how we do science too?

Crowdcrafting was born at a hackathon in Cape Town, South Africa in 2011. It is a free and open source alternative to existing citizen science platforms. In partnership with our key collaborators, such as CERN, United Nations (UNITAR) and the University of Geneva, we have reached out to and inspired many people to get involved with science. And this is how we have achieved our goal of transforming citizens from scientific consumers to scientific producers.

100%
OPEN SCIENCE
OPEN SOURCE

+ 35 000
VOLUNTEERS

+ 100 000
CLASSIFIED
IMAGES
FROM ISS

+ 4 500
ANALYZED
AREAS

What is *Crowdcrafting*?

Crowdcrafting is a web-based service that invites volunteers to contribute to scientific projects developed by citizens, professionals or institutions that need help to solve problems, analyze data or complete challenging tasks that can't be done by machines alone, but require human intelligence. The platform is 100% open source – that is its software is developed and distributed freely – and 100% open-science, making scientific research accessible to everyone.

Crowdcrafting uses PyBossa software: Our open source framework for crowdsourcing projects. Institutions, such as the British Museum, CERN and United Nations (UNITAR), are also PyBossa users.
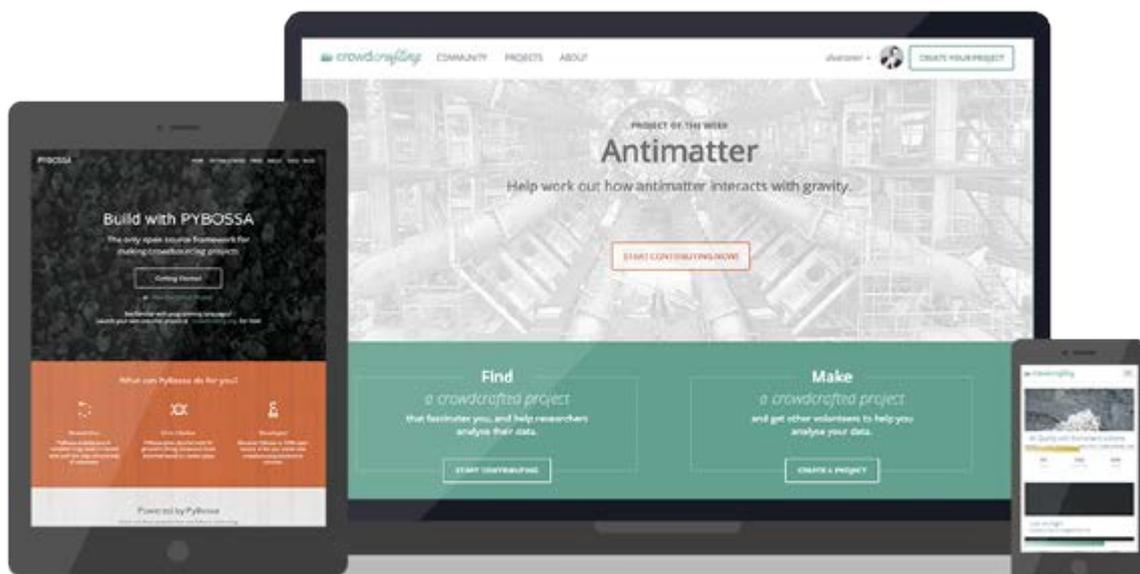
What is citizen science?

Citizen science is the active contribution of people who are not professional scientists to science. It provides volunteers with the opportunity to contribute intellectually to the research of others, to share resources or tools at their disposal, or even to start their own research projects. Volunteers provide real value to ongoing research while they themselves acquire a better understanding of the scientific method.

Citizen science opens the doors of laboratories and makes science accessible to all. It facilitates a direct conversation between scientists and enthusiasts who wish to contribute to scientific endeavour.
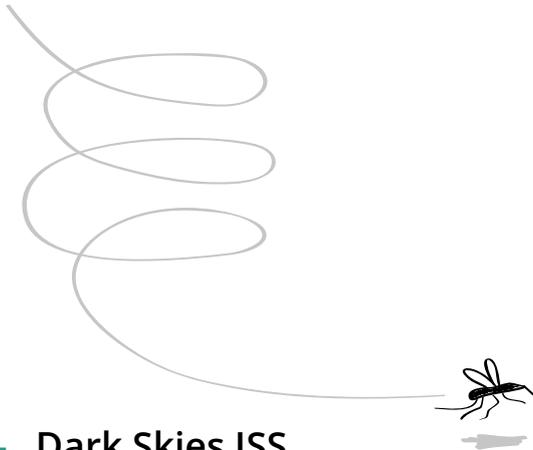
Who and how you can collaborate?

Anyone can create a new project or contribute to an existing project in Crowdcrafting. All projects start with a simple tutorial explaining how they work and providing all the information required to participate. There is thus no specific knowledge or experience required to complete proposed tasks.

All volunteers need is a keen attitude to learn and share science with everyone.

Featured projects
or the ones that make us proud

Tigafotos

The tiger mosquito (aedes albopictus) is a species native to South East Asia, and invasive in Europe and the Americas, which can transmit tropical diseases to humans.

The goal is to create a map to study the presence and spread of the mosquito in Spain, where it was first observed in 2014.

How can you help? You help identify tiger mosquitoes and their potential breeding grounds in pictures sent by volunteers to the Crowdcrafting project: AtrapaelTigre.com.
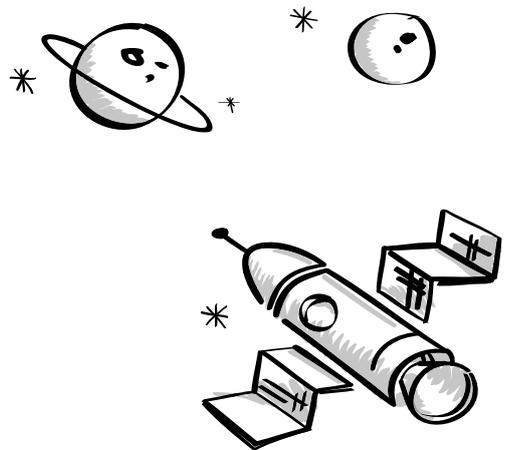
http://crowdcrafting.org/app/Tigafotos/

Dark Skies ISS

There are almost two million images hosted in the Johnson Space Center database, with more than a million taken directly by astronauts from International Space Station.

The goal of Dark Skies is to study the light pollution emitted by the world's major cities. The data gathered will be presented to governments and councils to encourage them to reduce light pollution in their cities and districts.

How can you help? You help to identify and establish the geographic location of photographs of cities at night – a task which cannot be completed by computer algorithms.

http://crowdcrafting.org/app/darkskies/

Rural Geolocator

Rural Geolocator is a project that gathers data about the location of houses and urban populations in satellite images of the Majete Wildlife Reserve, Malawi.

The goal is to create a detailed map of dwellings in Majete so that field teams may visit the reserve's entire population and help prevent the spread of malaria.

How can you help? You identify 'potentially habitable structures' in satellite images of Majete.

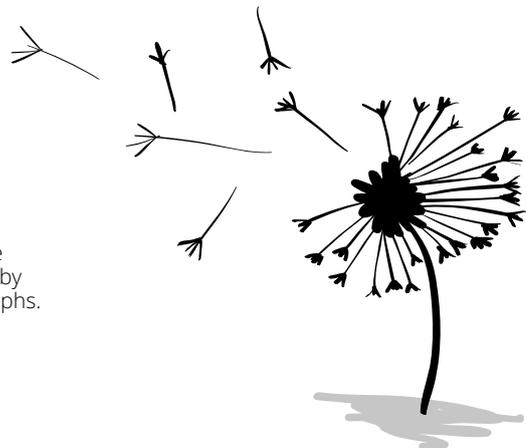http://crowdcrafting.org/app/RuralGeolocator/

Air Quality with Biomarkers: Lichens

Lichens are very sensitive to pollution, especially air acidity. As such, their presence or absence reflects air quality.

The goal is to estimate city air pollution levels based on the size of lichens.

How can you help? Firstly, by taking pictures of lichens in your city using the epiCollect+ phone application and uploading them into Crowdcrafting. Then, by classifying lichen typology and measuring their size in the uploaded photographs.

http://crowdcrafting.org/app/airquality/

Crowdcrafting.org in the press

if it's not on Internet it does not exist

theguardian

> During the typhoon, [...] the taskforce volunteers relied on PyBossa microtasking software from CrowdCraftingto perform their tasks. They analysed 20,000 tweets in 10 hours. Their data became the basis for the official UN crisis map, and it was the first official crisis map to be adopted by OCHA that was based on social media data.

http://www.theguardian.com/global-development-professionals-network/2013/oct/08/social-media-microtasking-disaster-response

Discover

> Federal agencies including NASA and the U.S. Geological Survey (USGS), as well as nongovernment platforms such as the new open-source site CrowdCrafting, substantially expanded the number and diversity of citizen science programs available in 2013.

http://discovermagazine.com/2014/jan-feb/76-science-for-the-people-by-the-people

NBC NEWS

> When Typhoon Haiyan (also called Yolanda) made landfall, participants in the project, hosted on the CrowdCrafting website, have sifted Twitter posts and uploaded photos from Filipino users, filtering for rare-but-valuable updates, images and information that point to areas where help is needed most.

http://www.nbcnews.com/tech/internet/help-map-crisis-volunteers-sift-through-typhoon-tweets-f2D11582667

NASA

> Algorithms cannot distinguish between stars, cities, and other objects, such as the moon. Humans are much more efficient for complex image analysis.

http://www.nasa.gov/mission_pages/station/research/news/crowdsourcing_night_images/#.VGonMdxrWb-

EL TIEMPO.COM

> Hasta el momento, el proyecto ha seleccionado 130.000 imágenes nocturnas de alta resolución, que han sido clasificadas con la ayuda de voluntarios. Para sumarse a esta iniciativa hay que acceder a la plataforma sobre ciencia ciudadana crowdcrafting.org.

http://www.eltiempo.com/estilo-de-vida/ciencia/contaminacin-lumnica-cities-at-night/14801637

EL PAÍS

> Para solucionar este problema recurren a la ayuda de voluntarios a través de crowdcrafting.org, una plataforma que pone en contacto proyectos con personas dispuestas a dedicar un poco de su tiempo y echar una mano.

http://elpais.com/elpais/2014/10/01/ciencia/1412150593_038450.html

rtve.es

> Cities at Night es un proyecto de ciencia ciudadana [...], la base de la iniciativa es una página web desde la que se accede a tres aplicaciones de ciencia ciudadana que emplean la herramienta Crowdcrafting.

http://www.rtve.es/noticias/20140711/proyecto-invita-aficionados-astronomia-identificar-1700-fotos-tomadas-astronautas/970880.shtml

EL MUNDO

> El modelo de "ciencia ciudadana" para esta investigación estuvo inspirado [...] en un proyecto similar. "Las personas, si son guiadas, son capaces de reconocer patrones de forma más eficiente que un ordenador", añade Sánchez.

http://www.elmundo.es/ciencia/2014/07/11/53bd2ab222601db2118b458c.html

nominet trust 100 WINNER 2014

> On 4 December, the Nominet Trust recognised Crowdcrafting as one of the most inspiring hi-tech social innovations of 2014 and "the world's most diverse open source software platform for 'citizen science' projects"

http://pybossa.com/press/2014/12/05/award-2014NT100

video

La2. La Aventura del Saber.
http://www.rtve.es/alacarta/videos/la-aventura-del-saber/aventura-del-saber-daniel-lombrana-ciencia-ciudadana/2403790/

FOX News
https://video.foxnews.com/v/video-embed.html?video_id=3742323090001&utm_content=buffer651ac&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer

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crowd*crafting*.org   **SCIFABRIC**   **PYBOSSA** OPEN CROWD SOURCING

Who is behind *Crowdcrafting.org*?

the full team

Daniel Lombraña
Co-founder & Project Lead

Marvin Reimer
Senior Developer

Jorge Correa
UX/UI Designer

Alejandro Domínguez
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Álvaro Suárez
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WE ❤ SCIENCE

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