about

Citizen Science
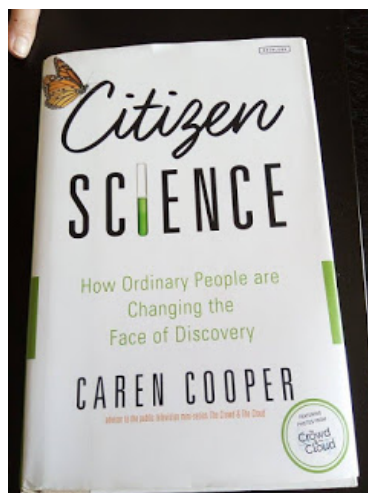
By Victoria Baltag - August 03, 2017

A new wave of improving science through citizens' contribution - movement started as early as 1835 (or maybe even earlier)

1835, William Whewell conducted a research about ocean tides, for whom he won the Royal Medal two years later (1837). Apparently, this was the first citizen science project, even though the term was not yet used. In June 1835, Whewell coordinated thousands of people at more than 650 tidal stations to measure tides at a specific time given, in nine nations and colonies on both sides of the Atlantic. The local tide charts were prepared by people working in ports and used to keep their secrets about tides from generations to generations. Figuring out the complexity of the tides was essential for moving from harbour to harbour especially in Great Britain, an empire interested in dominating the ocean travel and the global trade.

Caren Cooper's book about citizen science. The information about Whewell are from her book

'The great tide experiment' gave birth to a new science called *tidology* and in the same period, Whewell coined the term *scientist*. It was used for the first time in 1833 when Whewell wanted to avoid calling a woman "man of science", and so, he used the term *scientist.*

Back to 1800s, the *scientist* was a wealthy man or woman, with significant amount of spare time, making science as "elite hobby". Science was considered an extravagance for the wealthy. Charles Darwin, for instance, was not hired as a scientist by HMS Beagle, but a companion of Captain FitzRoy and a *gentleman naturalist*. Moreover, science was a secret concept and the discoveries or the scientific results were kept hidden from the public access.

Probably the citizen science was born on one side, for the necessity of the citizens to benefit from the scientific knowledge and on the other side, for the necessity of using free human resources to contribute to scientific innovation, due to lack of funds in science.

But citizen science is more complex than this, even though not yet fully clarified as a concept. For instance, some scientific research can't be developed without the contribution of the citizen:

Episode 1: Even Big Data Starts S...

We live in a society where we all shall contribute for the best of the environment, life and health. We all shall get involved in actions that matter for us or for the people around us. The citizen science is a voluntary activity that has the purpose the improvement of our existence on Earth in a way or another. Sometimes, the expertise of scientists is needed, sometimes the intuition of citizen scientists is more than enough to get the right results.

There is no right or wrong way to do citizen science as long as the goal is to make the society benefit from the results in a positive, proactive, sustainable way. It is still early days to construct the perfect definition, the law and the ethics of the citizen science at the moment, as the concept is far too broad and perhaps each area of citizen science shall have its own law and procedures. I have found Crowd&Cloud so useful and clear about what citizen science is, why it is so important, how can we make things happen and why shall we get involved.

During LERU Summer School I had the chance to listen to Muky Haklay, Bruno Strasser and Effy Vayena's presentations and I was very much influenced by their talks. On this occasion, I have to say big thank you to UCL Doctoral School for selecting me and giving this amazing opportunity to take part at the event.

From Muki I have got maybe the best pieces of advice available at that moment. I have learned to be perseverant, to gain something from each situation, to adapt and to never give up. I have learned from him that social science (and even art), can make the subject of citizen science, that the best innovation is realised with us all as a team - an interdisciplinary team - as we all are extremely important to the society.

Bruno had an amazing presentation about the history of citizen science, the social pressure, the inconveniences, the advantages and the weaknesses of this scientific movement. Wikipedia is written by citizens, Encyclopaedia Britannica is written by scientists. A research found out that they both have similar number of errors (!!!) For Wikipedia the errors are changed in 24 hours (sic), despite the unchangeable versions of Britannica books. So, is citizen science a good option for science?

Effy talked about ethics and law, which made us, the summer school attendees, fall into deep debates. She also has a TEDx - very interesting 17 minutes presentation about citizen science, which I am sharing with you below:

We the people, the citizen scientist…

▶

Bruno Strasser   Caren Cooper   citizen science   Effy Vayena   LERU Summer School

Muky Haklay   scientist   social science is science   University College London

William Whewell

Enter your comment...