Deal with the devil?

Petite introduction à Google Earth Engine

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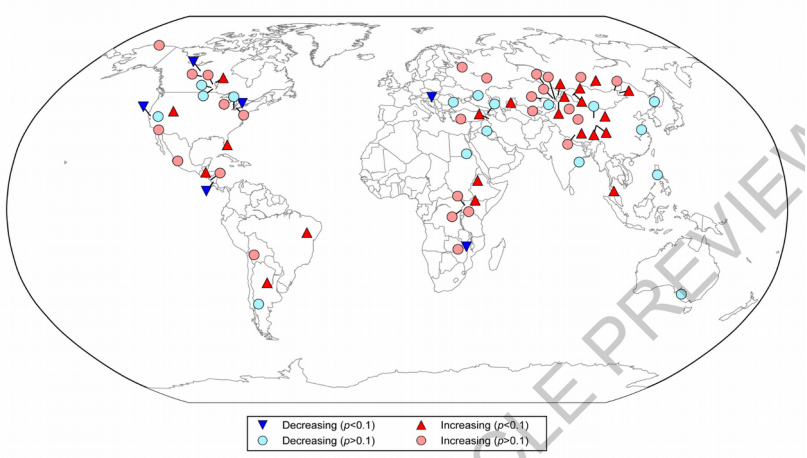
CNRS/Cesbio

nature
International journal of science

Article | Published: 14 October 2019

Widespread global increase in intense lake phytoplankton blooms since the 1980s

J. C. Ho, A. M. Michalak & N. Pahlevan

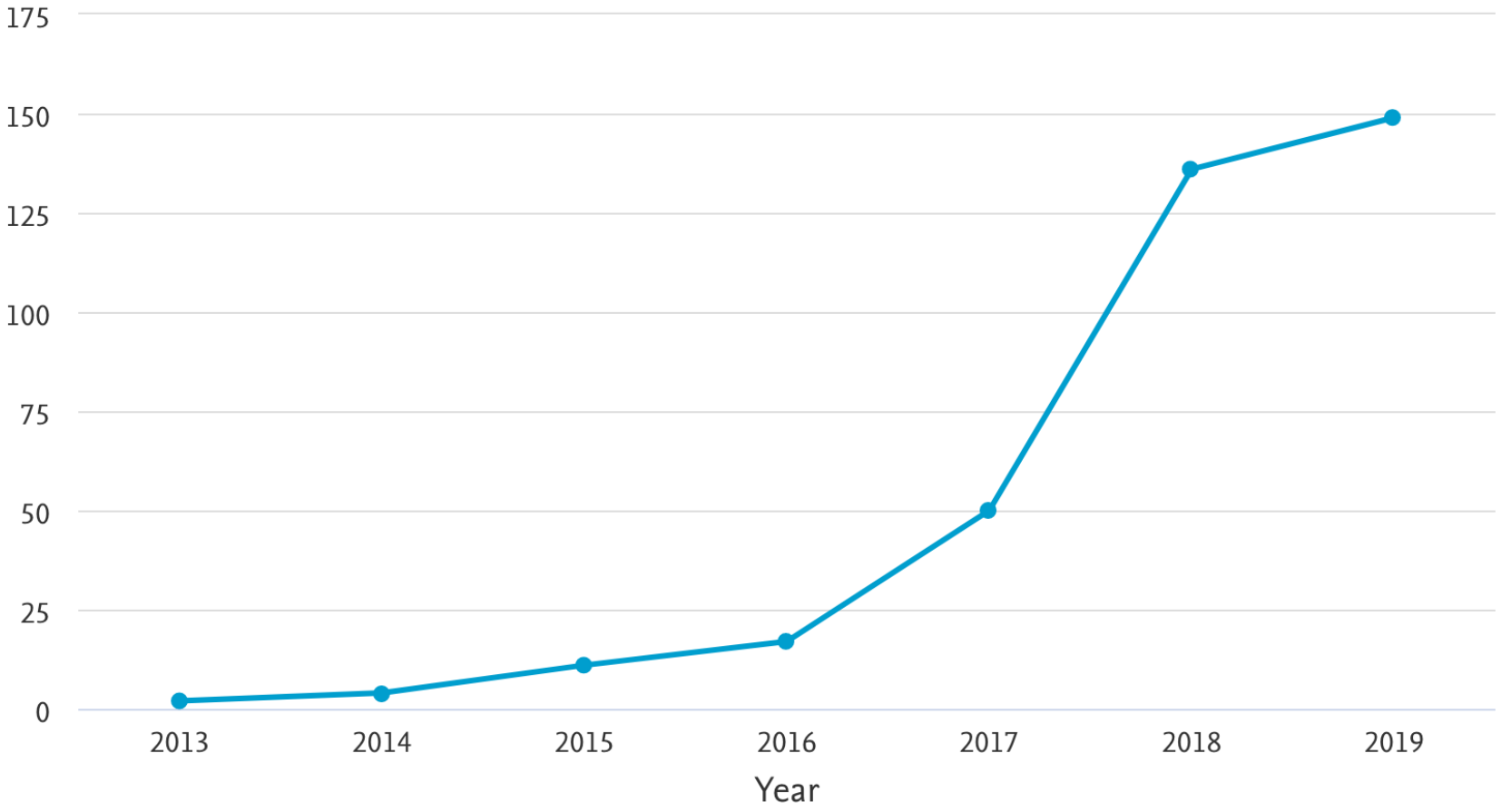


https://github.com/jeffcfho/GEE_CodeEditorScripts

« Hansen forest map »

https://
earthenginepartners.appspot.com/science-2013-global-forest

Nombre d’articles par an qui mentionnent « Google Earth Engine » dans le titre, le résumé ou les mots-clefs.



Remote Sensing of Environment

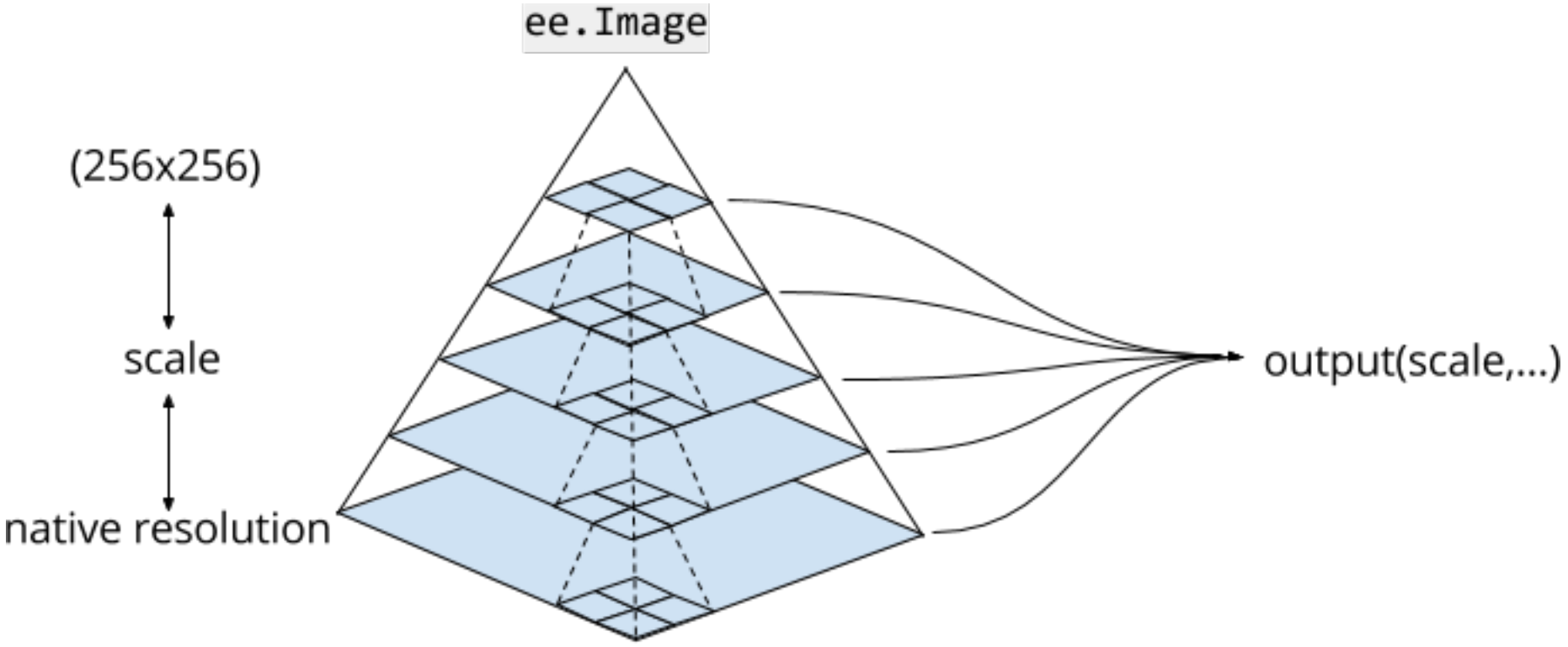
Volume 202, 1 December 2017, Pages 18-27

Google Earth Engine: Planetary-scale geospatial analysis for everyone

Noel Gorelick [a], Matt Hancher [b], Mike Dixon [b], Simon Ilyushchenko [b], David Thau [b], Rebecca Moore [b]

Gorelick et al. (2017)

“When you use an image in your code, Earth Engine chooses a level of the pyramid with the closest scale less than or equal to the scale specified by your analysis and resamples (using nearest neighbor by default) as necessary.”



Atouts de GEE

- **Datasets:** A petabyte-scale archive of publicly available remotely sensed imagery and other data. Explore the data catalog.
- **Compute power:** Google's computational infrastructure optimized for parallel processing of geospatial data.
- **APIs:** for JavaScript and Python for making requests to the Earth Engine servers.
- **Code Editor:** An online Integrated Development Environment (IDE) for rapid prototyping and visualization of complex spatial analyses using the Javascript API.
- **Documentation**
- **User support**
- **Partage de code (pseudo-reproductibilité)**
- **100% énergie renouvelables**

Inconvénients

- Ethique : *Google is evil?*

Inconvénients

- Ethique : *Google is evil?*
- Scientifique : noyau du code fermé

http://jordiinglada.net/wp/2016/05/12/is-google-earth-engine-evil-2
/

Inconvénients

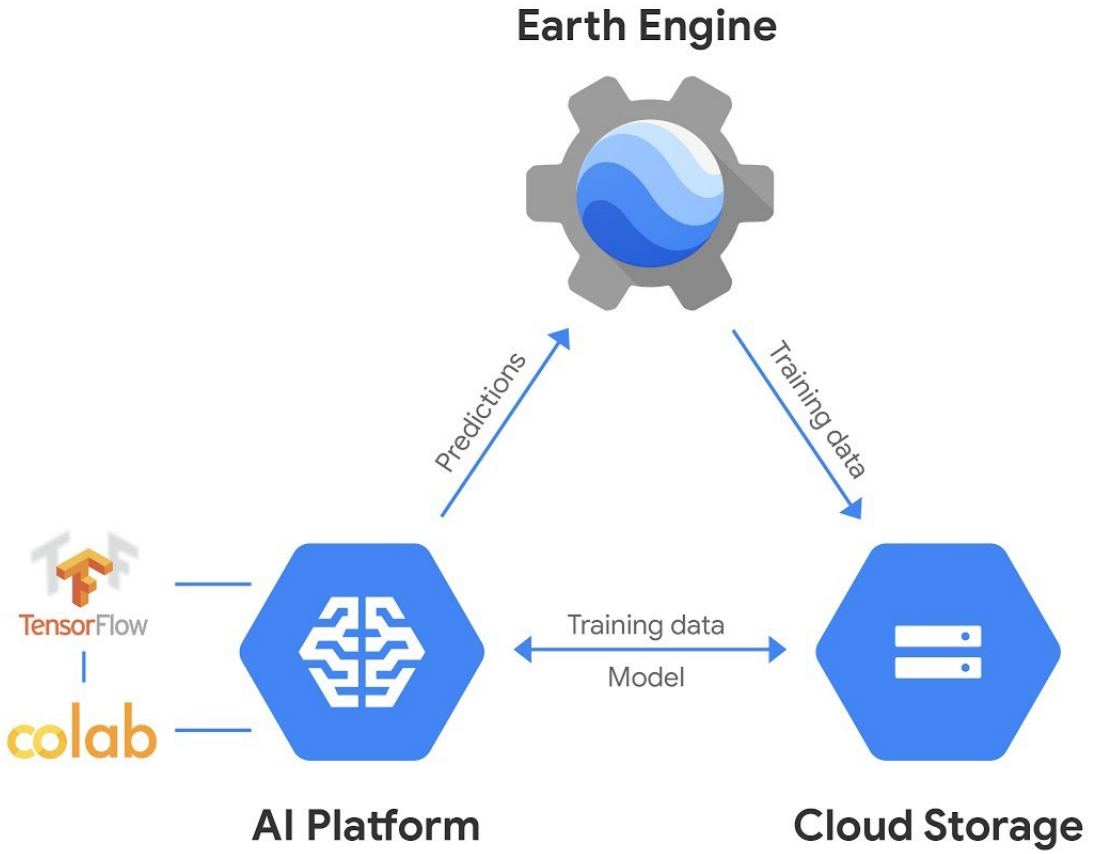
- Ethique : *Google is evil?*
- Scientifique : noyau du code fe
- Pratique : « No deprecation pol

https://labo.obs-mip.fr/multitemp/sur-google-earth-engine-attention-au-syndrome-de-mrs-armitage-on-wheels

Inconvénients

- Ethique : *Google is evil?*
- Scientifique : noyau du code
- Pratique : « No deprecation p
- Economique : Google AI = $$

Money



ai

PHARMACIE

Exemples simples

- Night lights (compte google requis)
- http://tully.ups-tlse.fr/simon/bakun-and-murum-lakes/blob/master/BakunLake.js
- http://tully.ups-tlse.fr/simon/snow-lesotho
- http://tully.ups-tlse.fr/simon/glacier-bay-landslide
- https://labo.obs-mip.fr/multitemp/mapping-flooded-areas-using-sentinel-1-in-google-earth-engine/
- https://labo.obs-mip.fr/multitemp/tag/gee/

« **Notice:** Earth Engine is not subject to any Service-Level Agreement (SLA) or deprecation policy »

https://www.wordstream.com/articles/retired-google-projects

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