



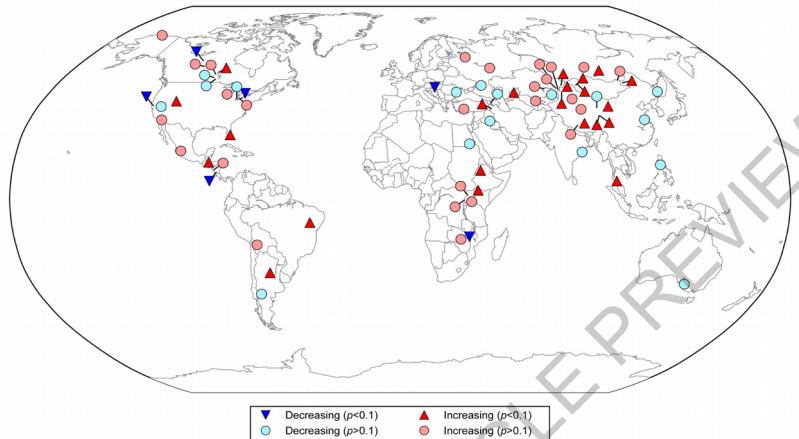
Deal with the devil?

Petite introduction à Google Earth Engine

Simon Gascoin
CNRS/Cesbio

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

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



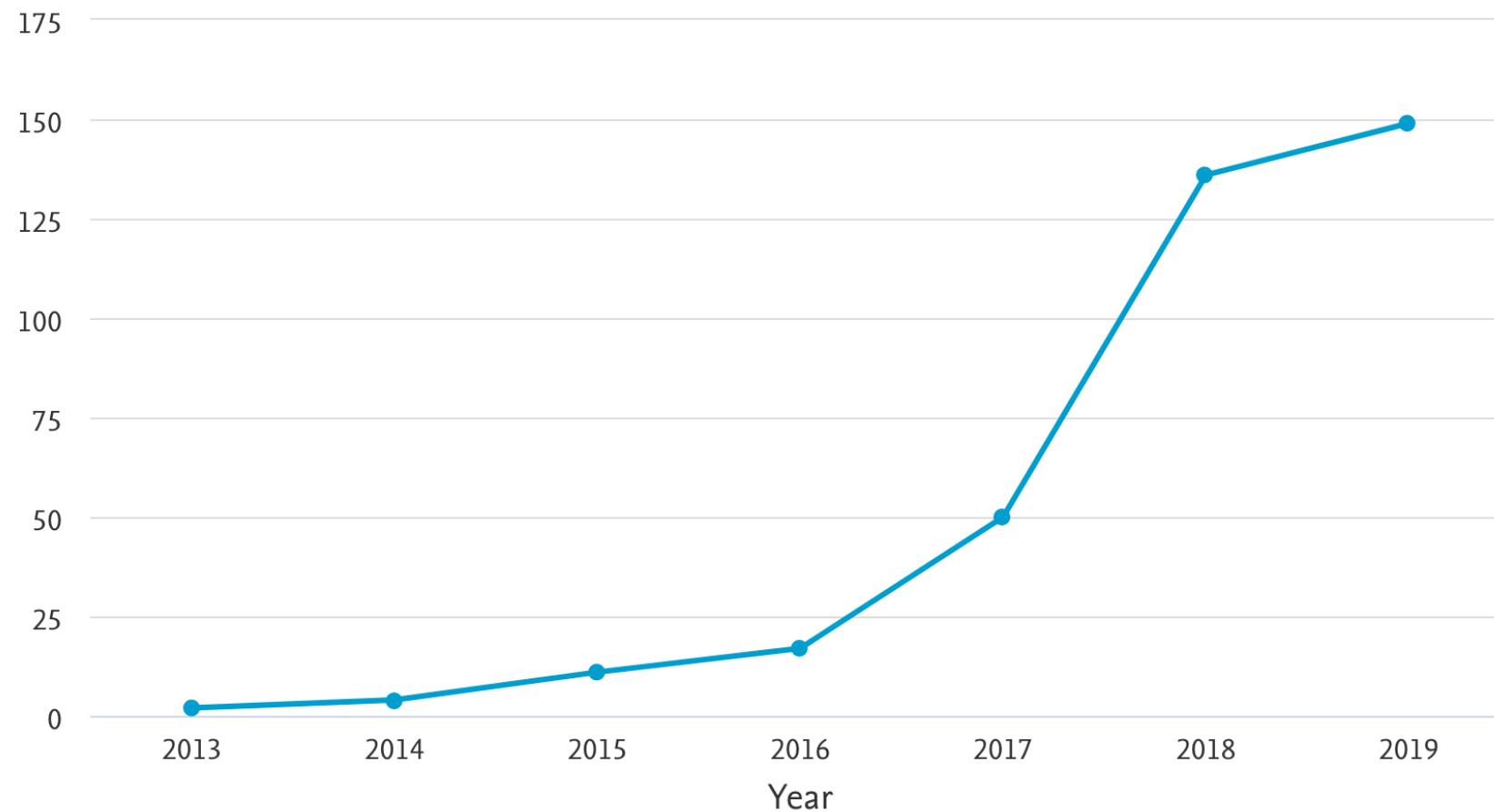
https://github.com/jeffcfho/GEE_CodeEditorScripts

« Hansen forest map »

The screenshot shows a web page from the journal *Science*. At the top, there is a dark navigation bar with the word "Science" in large white letters, followed by "Contents", "News", "Careers", and "Journals". Below this, the main content area has a light gray background. In the upper left of this area, there are "SHARE" and "REPORT" buttons. To the right of these buttons is the title of the article: "High-Resolution Global Maps of 21st-Century Forest Cover Change". Below the title, the authors' names are listed: M. C. Hansen^{1,*}, P. V. Potapov¹, R. Moore², M. Hancher², S. A. Turubanova¹, A. Tyukavina¹, D. Thau², S. V. Stehman³, S. J. ... There is also a link to "See all authors and affiliations". At the bottom left, there is a summary of the publication details: "Science 15 Nov 2013: Vol. 342, Issue 6160, pp. 850-853 DOI: 10.1126/science.1244693". On the far left, there is a vertical column containing four circular icons for sharing the article on Facebook, Twitter, LinkedIn, and Google+.

<https://earthenenginepartners.appspot.com/science-2013-global-forest>

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





ELSEVIER

Remote Sensing of Environment

Volume 202, 1 December 2017, Pages 18-27

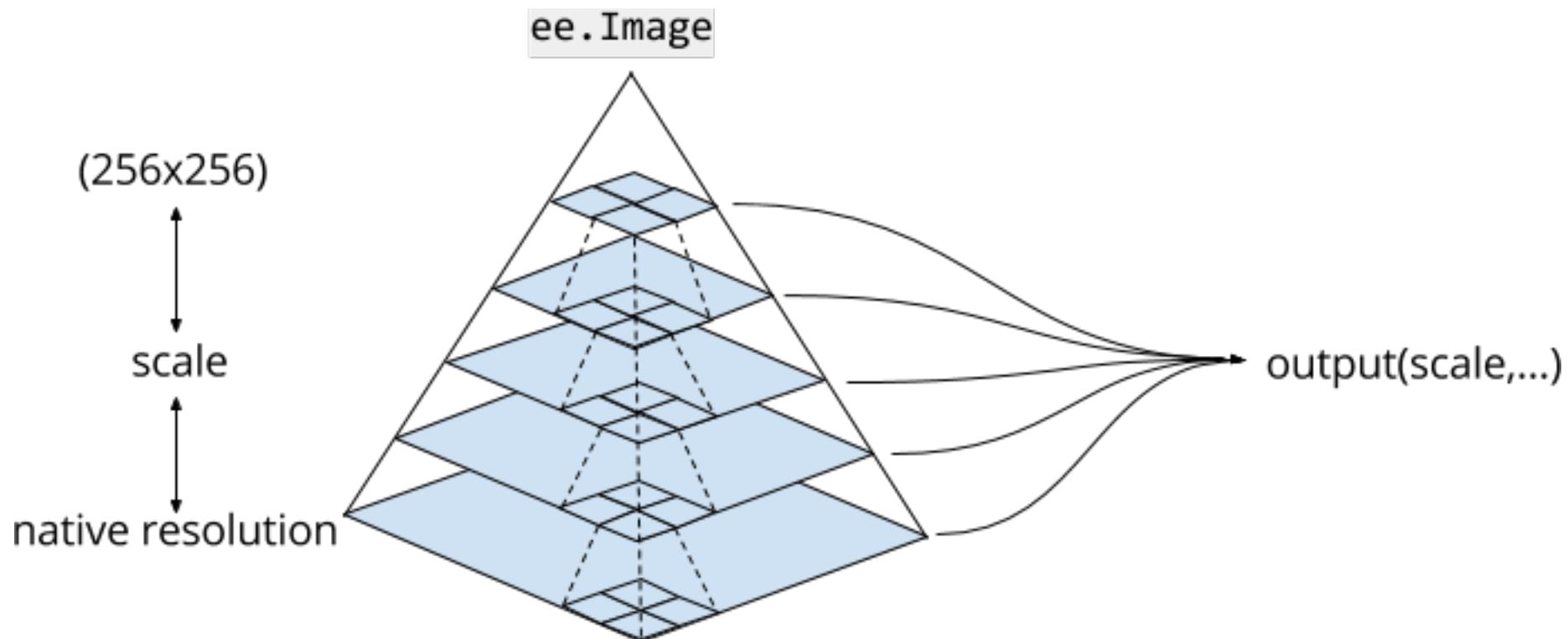


Google Earth Engine: Planetary-scale geospatial analysis for everyone

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

- Ethique : *Google is evil?*
- Scientifique : noyau du code fermé
- Pratique : « No deprecation policy »

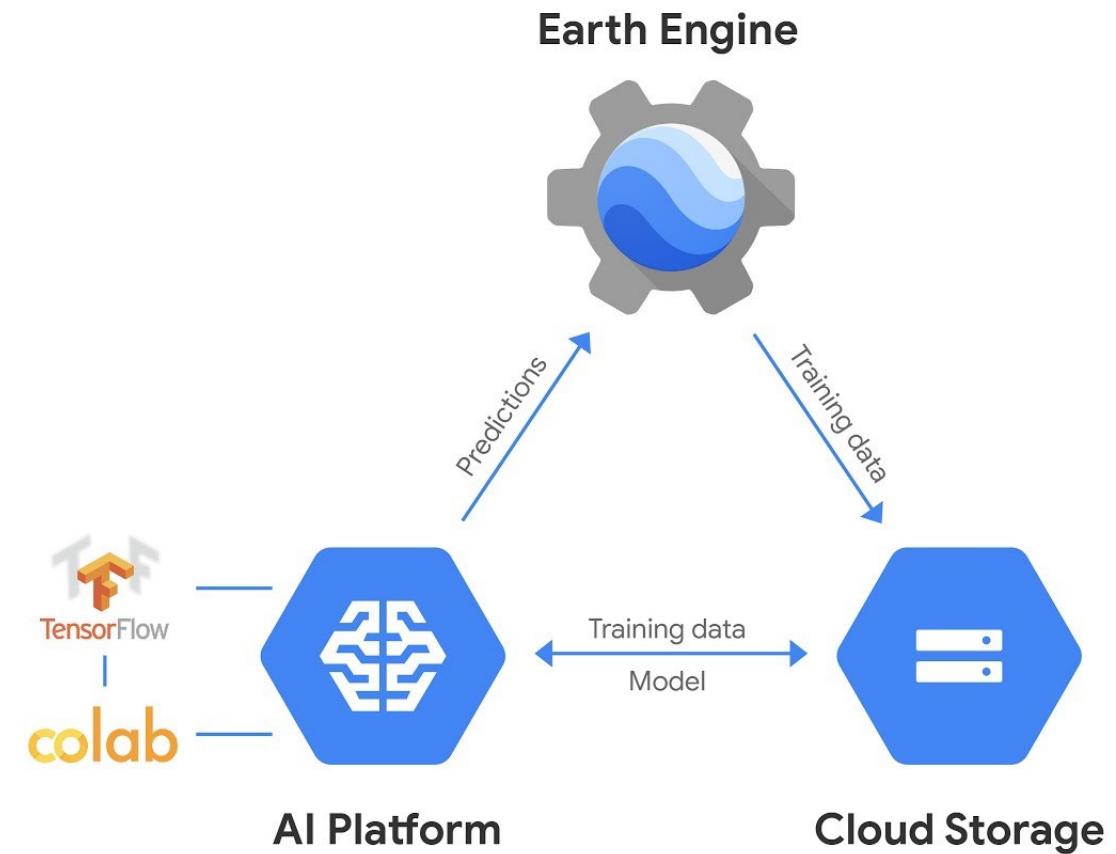


<https://labo.obs-mip.fr/multitemp/sur-google-earth-engine-attention-au-syndrome-de-mrs-armitage-on-wheels>

Inconvénients

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

Money





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>



back