AGILE PhD School - Key Takeaways

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Figure 1: land use modelling areas

Abstract

How to visualize hundreds of modelling areas, and results for these units.

1 Visualisation

I came to PHD School with a problem - I even presented it on monday- how to visualize hundreds of modelling areas, and results for thos units. The problem is that those area are aggregation of basic units like communes - and it is hard to show them at once (they overlay each other).

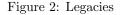
On Tuesday we had a workshop with Topi Tjukanov and I liked vey much two things Topi showed us:

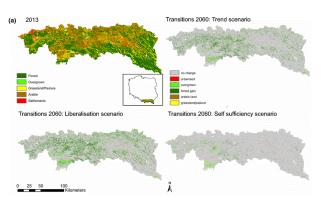
QGIS blending styles helped me to some extent to display features that overlay each other

I have still some ideas about visualisazing trajectories in spatial units and I will still look for a nice way hw to do it Article Full-text available

Legacies, socio-economic and biophysical processes and drivers: the case of future forest cover expansion in the Polish Carpathians and Swiss Alps November 2017 · Regional Environmental Change 17(8):2279–2291 DOI: 10.1007/s10113-016-1079-z License · <u>CC BY 4.0</u> Project: <u>FORECOM project (Forest cover changes in mountainous regions - drivers, trajectories</u> and implications, <u>PSRP-008</u>/2010)

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2 Reproducibility

On Wednesday we and a workshop about reporducility: version control, repositories etc..

During my Phd I used the same set of input data that was described in a paper I am a co-author:

It was a simple dataset: one land cover map and 12 explanatory variables maps. Data from this paper was meant to be make public. So I think there will be no problem to put it into repository.

And as I mentioned before - I used hundreds of modelling areas, but they were generated automatically from just 3 sets of basic units: administrative, physical and geometrical spatial units

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Branch: master - New pull request	Create new	file Upload files	Find file	Clone or download +
marcinszwagrzyk Full land use modelling procedure			Latest comm	t a004d19 21 hours ago
1_data_preparation.ipynb	Full land use modelling procedure			21 hours ago
2_Statistical_modelling.ipynb	Full land use modelling procedure			21 hours ago
3_allocation.py	Full land use modelling procedure			21 hours ago
3_probability_maps.ipynb	Full land use modelling procedure			21 hours ago

Figure 4: My repository

Generating of modelling areas as well as my whole modelling procedure was coded by me in Python with using of diffrent libtraries (like ArPy, pandas, scikit learn)

All of this code I uploaded already (yesterday and today) on my GitHUB repository my repository

But the code is very unclean and need to be polished, before being ready to be reused by somebody else on diffrent data.

2.1 Science Communication

At general, the readers of my work will be the people who work with land use models. So, there are mostly geographers. The benefit they will get from reading my work is that they will have a guideline how to proceed with land use modelling

But my Phd thesis has one disadvantage: it is in Polish. So the audience is now very limited. Writing a paper in English will be much better.