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Volunteering
for the future –
Geospatial excellence
for a better living



GeoAI in Property Valuation

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Property Valuation in Developing Economies: The Past

His name is Angelito. He wakes up early in the morning and leaves before his 7-year old son is awake.

For months, he'll be traveling with colleagues from the Office of the Municipal Assessor, along with a security escort from the Office of Municipal Police.

Their job? Conduct a comprehensive property survey, which is a labour-intensive process of visiting all households in the municipality.



Property Valuation in Developing Economies: **The Future**

If Angelito is still alive, perhaps he is using a computer, and comparing several valuation model results to decide which one to recommend to the Municipal Assessor.

No need to leave home. Instead, he can perform the same tasks he had done for years at the comfort of his office.

This time will be different. After work, he has time to spend arguing with his son and playing with his grandson.

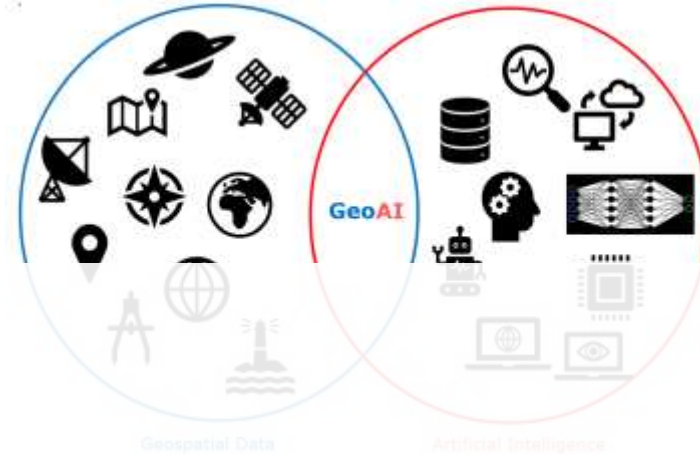


https://www.freepik.com/free-photo/elegant-old-man-standing-using-laptop_7121603.htm

But what's keeping us from adopting (Geo)AI?

Pros

- ✓ Reduces cost of property valuation
- ✓ Reduces subjectivity
- ✓ Frees valuers from onerous work
- ✓ More accurate estimates than traditional approaches



PERCEPTIONS!

Cons

- May not provide accurate valuation estimates
- Hard to explain or defend in the face of objection
- ...

Abidoye, R., Ma, J., & Lee, C. L. (2021). Barriers, drivers and prospects of the adoption of artificial intelligence property valuation methods in practice. *Pacific Rim Property Research Journal*, 0(0), 1–18. <https://doi.org/10.1080/14445921.2021.2001724>



<https://www.lcc.gov.zm/>

Argument 1: case study **shows potential for GeoAI...**

Several studies point to the potential that (Geo)AI can significantly improve the current state of property valuation.

Sometimes better to see it for yourself, and we did see the potential in case study for Lusaka City (Zambia).

GeoAI-assisted property valuation estimates within 17% of current manual approach, at a fraction of the cost and time required.

Argument 2: Commitment makes it happen!

The case of Property Valuation Services Corporation (PVSC), in Nova Scotia (Canada) further proves that it's possible.

With buy-in from its management and having the right support from expert institutions such as IAAO, PVSC was able to incorporate ML into its mass appraisal.



Own property in Nova Scotia?



View your 2022 Property Assessment at www.pvsc.ca

Call PVSC at 1-800-380-7775 or email inquiry@pvsc.ca for more information

<https://kentville.ca/news/10-01-2022/property-assessment-notice-out-now>

So, what can we do?

Let's continue the conversations...

SIG with defined purpose

Survey the state-of-the-art (where we are) and where we're going

Solicit institutional support from the likes of FIG, IAAO, and so on

Encourage experiments beyond academic research

Condense knowledge and experience into guidelines/standards

Thank you!



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