

# **CONSULTATIONS ON WEB TOOLS SHOWING HOUSING DATA IN METRO VANCOUVER AND OTHER CITIES**

## **EXECUTIVE SUMMARY**

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## Disclaimer

This report was produced as part of the UBC Sustainability Scholars Program, a partnership between the University of British Columbia and various local governments and organisations in support of providing graduate students with opportunities to do applied research on projects that advance sustainability across the region.

This project was conducted under the mentorship of 221A staff. The opinions and recommendations in this report and any errors are those of the author and do not necessarily reflect the views of 221A or the University of British Columbia.



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## Introduction

221A is a non-profit in Vancouver, Canada that “works with artists and designers to research and develop social, cultural and ecological infrastructure” (221A, n.d.). The organization works towards a vision for all people to have the means to make and access culture. Among other programs, they run a fellowship program where they support individuals and organizations both locally and from around the world on projects that they believe will advanced their values. In 2020 and 2021, they partnered with the Center for Spatial Technologies (CST), a primarily Ukraine-based group that is “hacking economic, technological and political infrastructures to shape the future city” (Center For Spatial Technologies, n.d.). CST is developing DOMA, a proposed platform cooperative that is envisioned to leverage blockchain technology to increase housing accessibility and distribute urban value (DOMA, n.d.). Having examined European urban housing markets such as Kiev and Berlin, CST was interested in exploring the potential for the DOMA platform in Vancouver, where the housing typology is quite different from those in Europe.

## Background

CST had previously conducted a study with Dark Matter Labs (London) on the effect of the development of the public park known as the High Line on property values in New York City (Dark Matter Laboratories, 2019). In Vancouver, CST wanted to first gather fine-grained data on the housing market, as well as to compare the market with housing markets around the world, in order to understand what is happening locally, to potentially build on the data for future analyses and tool developments, and to link local trends with with global processes that influence housing. In line with this, CST is developing a high-resolution view of housing data in Metro Vancouver on a dashboard (see Figure 1) as well as a low-resolution comparison of housing stress in cities around the world via scorecard rankings (see Figure 2).

The dashboard compiles data from government and proprietary sources to show a map of Metro Vancouver down to the highest resolution available. While the dashboard currently has no intended narrative to reveal, the CST team intends to develop several narratives from this dashboard. The dashboard will ultimately be provided as an open source tool available publicly for others to use and reveal emerging narratives within Vancouver’s housing market.

This dashboard includes a graph plotting cities around the world by housing market indicators, using data from Numbeo, a global crowd-sourced cost of living database (Numbeo, n.d.). The graph originally existed on a stand-alone webpage but was later integrated into the dashboard’s

interface. The scorecards show selected housing market indicators for cities around the world, with data from Numbeo as well.

Since the CST team is primarily based in Ukraine, they wanted to gain some local knowledge and perspectives from those who work in and study the housing market in Metro Vancouver.



Figure 1. A view of the dashboard as of April 29, 2021.

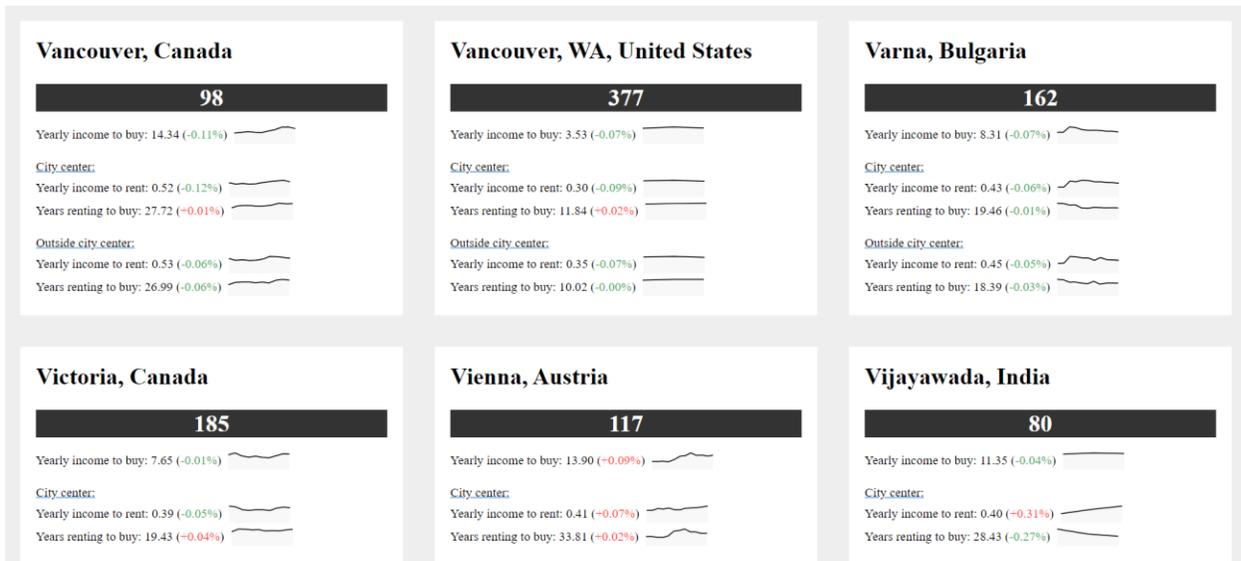


Figure 2. Some scorecards as of April 29, 2021.

## Research Approach

The research was conducted through semi-structured interviews. Based upon review of the academic and grey literature on Vancouver's housing market, the Scholar's academic background, and the mentor's contacts, a shortlist was constructed of potential individuals to interview. A consultation guide was constructed with input by the Scholar, the mentor, as well as the CST team. Questions covered aspects such as narratives behind housing trends in the city, where to source data, the use and interpretation of data, and the presentation of the data.

Interviewees were selected at the discretion of the mentor and the Scholar. Interviewees were invited via email and offered an honorarium for participating in the research. They received a consultation guide about the data tools and were asked to:

- Fill out a service agreement form,
- Fill out a Google Form survey of what housing indicators they thought were most appropriate for indicating a housing crisis,
- Review the dashboard's functionality and datasets, and
- Review the scorecards and their comparative methodology.

During the interviews, the mentor walked interviewees through some of the questions, chosen discretionally based on time limitations and the flow of the conversation.

Interviews are ongoing. As of the time of writing (April 30), five interviews have been conducted: four with housing researchers in academia, and one with a practising planner.

## Summary

The interviews have revealed a few themes, which can be grouped into a few categories.

### Narrative

Several points were raised concerning narrative.

- **Multiple narratives.** Interviewees pointed to various factors underlying the Vancouver housing market. While overseas capital was pointed out, domestic demand also was mentioned. Lack of housing supply, a popular narrative in the discourse, was critiqued.
- **Desire for narrative.** While the dashboard and scorecards currently have no intended narrative to reveal, multiple interviewees asked about the goal of these tools. Recommendations were given for narratives that these tools could be used to tell. For example, could the dashboard demonstrate the impact of regulatory changes on housing in the city over time?
- **Non-market housing as a solution.** Non-market housing, such as in multifamily forms, was raised as a solution.

### Housing Markets

Other points were raised about the reality of housing markets.

- **Complexity of housing.** Interviewees demonstrated the complexity of housing by bringing up many factors not captured in the data, such as the difference between expensive areas and culturally interesting areas, the impact of regulations on rents, and changes in the housing financing system over time.
- **Rental vs. ownership markets.** Interviewees highlighted the difference between the rental market and the ownership market. For example, renters generally earn substantially less than homeowners. One interviewee said that the two have no relationship to each other. This distinction was used in some suggestions of crisis typologies and narratives.
- **Formal vs. informal rental markets.** It was pointed out that most of the rental housing in the City of Vancouver is in the secondary/informal market. This suggests that further data and studies into this market would be necessary to better understand rental conditions in the city.
- **Different populations.** Interviewees highlighted that different populations experience the crisis differently. Differences span across factors such as age (older vs. younger

individuals), income (higher-income vs. lower-income groups), and housing status (homeowners vs. renters).

## Data

Some themes revolved around data.

- **Data quality.** Concerns were raised about the quality of the data, including for data sourced from Numbeo and the City of Vancouver. One interviewee suggested that less, but more accurate data is better than more data that is less accurate.
- **Data limitations.** Beyond the accuracy of the data, interviewees also highlighted the limitations of the data, or what the data shows. For example, it was pointed out that the informal housing sector is not captured by government-supplied data.
- **Data sources.** Interviewees brought to our attention some data sources, such as the Canadian Housing Statistics Program, Google Analytics, data scraping, and synthetic polygons.

## Interpretation

Interviewees spoke about the use or interpretation of the data.

- **Definition of affordability.** Interviewees added nuance to the definition of affordability. They noted, for example, that affordability includes other factors, such as transportation costs and availability. Factoring in transportation costs eliminates some of the differences in housing prices. Also noted was the importance of matching households to housing appropriate for them, looking beyond simple medians.
- **Need for careful interpretation.** Interviewees highlighted the need to interpret the data carefully. For example, two interviewees brought up that higher rental vacancy rates may not necessarily indicate a healthy market condition; owners of new rental buildings may be holding their units empty at high lease rates in response to regulatory limits on future rate increases.
- **Challenge of international comparisons.** Comparisons across countries bring up many issues. Besides differing data quality, the size of the non-market housing sector differs, and countries have different financing systems.

## Project-specific

Finally, interviewees raised some points concerning the project itself or the tools, which was welcomed as the dashboard is in a beta testing phase.

- **Data presentation.** The interviewees noted that some indicators were not yet well described or defined. Many interviewees had trouble understanding that a higher index score indicated less housing stress. Various suggestions were made to improve this, such as using colours or icons. One interviewee wondered how “city centre” and “outside city centre” on the scorecards were defined.
- **User experience/interface design.** A few user experience or interface issues arose. For example, on the dashboard it was not immediately obvious how to bring up the data layers and the legend. Various recommendations were also given to make the graph and scorecards easier and more intuitive to sort and navigate through.
- **Hyper-commodification of housing.** While only one interviewee specifically voiced concerns that this project could further commodify housing, another interviewee brought up the topic as well, indicating that there is general concern for the potential of digital technology and financial products to further commodify housing.

## Recommendations

While more details can be found in the interviews, the findings suggest some general next steps, such as:

- Deciding on which stories to tell through the tools,
- Deciding on which indicators to focus on,
- Deciding on what nuances in the housing market to show (e.g. rental vs. ownership),
- Recognizing the limitations of the data,
- Explaining more clearly what each indicator means, and
- Presenting the data in a more intuitive and user-friendly way.

## References

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