



Most Valuable Lessons Learned Over the Last 10 Years Part 2/3

Mobile mapping on steroids

Groningen, June 2023

Introduction

In the field of GIS, the acquisition, processing, and analysis of geospatial data are crucial for informed decision-making. As a GIS expert, you understand the significance of accurate and reliable data in delivering valuable insights.

In this whitepaper, we will explore the importance of utilizing your own data compared to relying solely on third-party sources. Additionally, we will delve into the unparalleled advantages of imagery data over LiDAR data, highlighting the unique insights it can provide. Furthermore, we will emphasize the necessity of employing tailored and robust mobile mapping hardware and software solutions, rather than settling for action cameras or camera-only mapping systems.

Groningen, June 19. 2023

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1. Stay in control: advantages of having own imagery data

1.1 Introduction

When it comes to data, maintaining control is key. That's why capturing and utilizing your own data offers a multitude of advantages over relying on licensed third-party data. In this era of data-driven decision-making, the benefits of staying in control of your data are undeniable. This chapter explores the undeniable benefits of capturing your own data and the pivotal role it plays in ensuring data integrity.

When you take charge of your own data collection, you seize control over the entire process. This control empowers you to establish robust and meticulous data collection procedures. You have the freedom to design surveys, conduct interviews, or leverage advanced technologies to gather data points that are highly relevant to your specific needs. By tailoring the collection process, you ensure that the data you acquire aligns perfectly with your project or business requirements.

In contrast, relying on third-party data introduces an element of uncertainty. While these data sources from companies like Cylomedia and Mappilary may offer convenience and breadth, they often lack the fine-grained control that comes with capturing your own data. The quality and accuracy of third-party data can vary significantly, as you have limited control over the collection methodologies employed by the providers of the imagery data. Especially in a crowd sourced environments like Mappilary the quality of the imagery data will vary. This inherent risk may compromise the reliability of the insights derived from such data, potentially leading to flawed conclusions and misguided actions.

And by taking ownership of your data, you control the entire data lifecycle, from collection to validation, grants you autonomy and confidence. Your insights are rooted in the highest standards of accuracy, enabling you to make precise, well-informed decisions that drive success in your projects or business ventures. Embracing this ownership not only safeguards the integrity of your insights but also gives you a competitive edge in today's data-driven world.

1.2 Key advantages

Find below the key advantages to capturing and using your own data instead of relying on licensed third-party imagery data from companies like Cylomedia and Mappilary.

- Data Ownership & Control

With complete ownership and control, you dictate every aspect, from collection to storage, management, and utilization. This level of autonomy grants you the freedom to safeguard sensitive or proprietary information, ensuring it remains confidential without the need to rely on third parties.

By retaining full control over your street level imagery data, you harness the power of flexibility. You have the authority to shape its destiny, tailoring it to your specific needs. Whether it's protecting classified locations or preserving confidential projects, the ability to dictate the fate of your data empowers you with unmatched control and ensures that your information remains in capable hands.

- Customization & Specificity

When you take charge of capturing your own data, you unlock a world of customization. You have the power to fine-tune the collection process, capturing precise data points and attributes that align perfectly with your project or business needs. This tailored approach ensures that the data you gather

is highly specific and directly relevant, offering invaluable insights that may be lacking in generalized third-party data.

The ability to customize your data collection empowers you to gather information that truly reflects your unique requirements. Unlike licensed third-party data, which can be more generalized and less specific, capturing your own data allows you to hone in on the exact details that matter most to your endeavors. This personalized approach ensures that you have a comprehensive and accurate dataset at your disposal, enabling informed decision-making and driving success in your projects or business ventures.

- Data Quality & Accuracy

When you capture your own data, you have direct control over the quality and accuracy of the data. You can implement rigorous data collection processes, quality checks, and validation procedures to ensure that the data is reliable and meets your standards. With third-party data, the quality and accuracy may vary, and you have limited control over the data collection methodologies employed by the provider.

For example when using Mapillary's imagery data for professional usage, potential cons to consider include inconsistent data quality due to variations in user-generated content and lack of standardization in image capture techniques and geolocation accuracy. These factors can affect the reliability and usefulness of the data for specific applications. Additionally, Mapillary's coverage may be limited and vary across regions, resulting in spatial bias and restricting its usability for comprehensive or global analyses, particularly in less-populated or remote areas.

By capturing your own data, you gain a competitive edge by having unique, actual and proprietary information that sets you apart from competitors. This exclusive data can be a valuable asset that enhances your decision-making processes, insights, and innovation capabilities.

- Timeliness & Currency

Capturing your own data allows you to have the most up-to-date and current information. You can collect data in real-time or at regular intervals, ensuring that you have the latest insights and trends. Licensed third-party data, on the other hand, may have a time lag or limited frequency of updates, which could impact the relevance and timeliness of the data for your specific purposes.

For example when using Cyclomedia's data, it's important to note there can be instances of outdated or incorrect information. Factors like changes in infrastructure or street layouts over months may not be immediately reflected. Verifying data accuracy and acknowledging limitations is essential before making critical decisions. Additionally, Cyclomedia's coverage may vary in frequency of yearly updates, and availability across regions or your particular project environment.

- Cost Efficiency

Even with Cyclomedia's new data capturing service, Street Hive, you have the ability to capture the data yourself wherever and whenever you want. This addresses the problem of not having the most up-to-date insight that is required. However, the vendor lock-in issue persists, as it necessitates the use of Cyclomedia's Street Smart software package, which includes an expensive licensing model.

While licensed third-party data can be convenient, it often comes with a cost. By capturing your own data, you can potentially reduce or eliminate licensing fees, making it a more cost-effective solution in the long run, especially for ongoing data needs.

- Data Privacy, Compliance & legal obligation

Retaining control over your data and intellectual property (IP) grants you the power to dictate access and usage, a critical consideration amidst growing apprehensions about data privacy and the improper handling of personal information. Preserving your data on your infrastructure or trusted platforms guarantees the safeguarding of your privacy. Moreover, certain industries or geographical locations may impose distinct legal and regulatory obligations concerning data protection and IP rights. By maintaining control over your data, you can adhere to these requirements, mitigating the risk of legal complications that may arise when relying on third-party solutions that may not meet the necessary standards.

India is currently catching up with mapping public spaces, has implemented its own law, Personal Data Protection Act. The PDPA specifies that the collection and storage of privacy-sensitive GIS data should only be carried out by Indian companies. It also mandates that the collected GIS data must be stored and processed within India.

1.3 Conclusion

In conclusion, capturing and using your own data offers numerous advantages compared to relying on licensed third-party data like. Ownership and control give you autonomy and flexibility over data usage. Customization allows you to tailor data collection to your specific needs. Data quality and accuracy can be ensured through rigorous processes. Timeliness and currency provide up-to-date insights. Cost efficiency arises from eliminating licensing fees. Competitive advantage stems from possessing unique and proprietary information. Data privacy safeguards personal information. Compliance with legal obligations is easier to maintain. Despite the investment required, the benefits of ownership, control, customization, data quality, and competitive advantage make capturing your own data a worthwhile choice for organizations reliant on data-driven decision-making.

2. Contact details

If you have any further questions don't hesitate to contact:

Horus View & Explore

Bas Beukers

Marketing & Business Development Director

Email: Bas@horus.nu