Inspection Data: the Big, the Bad and the Deep - An Interview with Marcel Poser

With the release of the analytics report, Harnessing The Data Advantage in Construction, by Autodesk and FMI, the spotlight is on inspection data in the construction industry - flaws and all. To dig into this important topic, we are interviewing Marcel Poser, CEO of Screening Eagle about inspection data, how it effects our built environment, how we can leverage the most valuable types of data and why we should...

Marcel, what is your perspective on inspection Data?

When it comes to inspections, one thing is for sure – data is the starting point to monitoring structural health, increasing safety and increasing the value of assets. But not all data is equal. Some inspection data can be heavy to process, complicated to analyze or simply too poor in quality to use, on the other hand, the right data is extremely valuable…

What is the value of quality data?

Quality inspection data is a hot commodity that can save lives and trillions of dollars for the asset owners by eliminating waste, saving time, giving the ability to make decisions faster, aiding predictive maintenance, reducing CO_2 emission coming from construction of the built environment and much more.

What are the different types of data?

In my mind, the three most talked about types of data are Big Data, Bad Data, and then truly Deep Data.

Big Data
What is big data and how is it used to protect the built world?

Big data refers to any extremely large or complex data sets that require advanced analytics. For the built world, big data analysis can be used at every stage of the process to create data driven intuitive models and achieve predictive structural health monitoring.

Machine learning in combination with big data is already being used to predict future defects or to optimize maintenance processes in industrial machinery, aerospace, mining equipment and many others. But the adoption of AI and big data analysis for the built world has been slow in mostly all parts of the world.

However, at Screening Eagle Technologies we´re working hard to bridge that global technological gap and be able to anticipate defects early enough through periodic inspections with intelligent software and sensors.

The built world is producing vast amounts of data every day and the Big Data market is expected to jump $30 billion in value in 2021 and 2022 according to Analytics Insight. The value creation is up for grabs for the first movers… but what happens when the vast amounts of data collected is ´bad´?

Bad Data

So tell us, what is bad data and what is its impact?

In the world of inspections, bad project data means it is either inaccurate, incomplete, inconsistent, or unable to provide any useable information. According to the [recent report](#), bad data could have cost the global construction industry a whopping 1.84 trillion dollars in 2020 alone… and this is only the construction industry. Add on top the trillions wasted due to improper maintenance of existing assets and you end-up with an astronomical waste of money.

It is hard to pinpoint any single reason that explains what makes data unusable, because there are often several causes. Bad inspection data can be due to insufficient technologies deployed, weather conditions impairing data collection, lost data, corrupt files, incomplete reporting, inaccurate testing, and many other reasons.

In the past, inspections would be carried out in the field and the data would need to be taken back to the office for processing which could take many hours or days to gain insights. The data would be shared via paper copies and USB stick which will inevitably be lost over time.

Now, productivity, efficiency and accuracy are top priorities so that quick and informed decisions can be made directly from the field. But the costs of making those quick decisions with bad data can be devastating. The earlier mentioned report showed that in 2020, one out of every three poor decisions are made as a result of bad data and 14% of all re-work in construction globally was caused by bad data.

Deep Data

Is Deep Data the answer to the challenge?

It´s not just about collecting Big Data, because much of it could be unusable. The real benefits lay in collecting Deep Data.

Deep data is the new gold.

The difference is in the quality and integrity of the data. Deep data is always consistent, complete, informative and actionable. This is what separates Deep Data from just Big Data.

Instead of finding out the data is bad back at the office when the inspection is over, or not finding the data anymore a few months after an inspection, we have now the possibility with intelligent inspection technologies to do intuitive data interpretation and visualization directly in the field to verify that the right data has been collected, generate reports in seconds and share securely with one click from the field. All data is synced automatically in the [Workspace](#) platform to have one single source of truth, so that data loss is eliminated and the data is available to all stakeholders for the years and decades ahead.

In the past, Deep Data has not been easy to collect in the inspection space and in the built environment, where ´pad and paper´ ways of working have been the norm. Now, our innovations in inspection sensors and software mean that not only is Deep Data possible but it can save trillions of dollars in the built environment, help to protect assets, increase safety, increase the value of assets and last but not least, help to drive CO2 emission down by operating assets longer and smarter and eliminate the fix when broken and knock-down way to early and rebuild approach of the last decades.

Mining Data Gold

So how can we mine the deep data?

All inspections professionals, locators and surveyors collect tons of data using technologies such as ground penetrating radar (GPR), but many sell it as analogue paint markings on road, grass, soil and concrete surfaces, lose the data on USB sticks and hard discs or as static PDF reports. This leaves tons of value on the table!

Now there is a way to access the data 'gold', it's time to let go of the 'gravel' of bad and analogue data.

As you know, bad data can have catastrophic consequences. Adopting fully digital and Deep Data driven strategies will significantly save costs and time, whilst addressing some of the key pain points of our built environment. Bad data starts with data collection, using old school technologies and yes… using paper and pencil.

Good data starts with data collection the digital way… or the Screening Eagle way.

Screening Eagle´s platform of [software, sensors and data driven solutions](#) are empowering the asset owners and the experts that collected not only the very best and clearest data but also to mine that data gold in a structured and efficient way at every stage of the asset lifecycle.

How can asset owners and inspections experts leverage the Screening Eagle platform?

Our solution teams are at your disposal, learn about your paint points, listen and understand your current workflows and then propose and craft solutions that meet your needs.

[Let's talk](#) and we will find out quickly what the mutual opportunities are.