

Apparent Precision: a Chilling Forecast for Surveyors

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SUMMARY

When watching the weather forecast in winter, one might have come across the concept of “apparent temperature” or “windchill”. When cold weather is combined with strong wind, most humans experience a lower temperature than the actual observation on a thermometer. Meteorologists have therefore introduced the subjective notion of apparent temperature in an attempt to please the general public.

Fortunately, geodesists are people of science, we don’t employ these arbitrarily defined measures. Or do we? Increasingly, the quality of geo-data is assessed by their looks. Rapidly rendered point clouds, colorful coordinates and classifications with convolutional neural networks... it often looks pretty good. Geodesists and surveyors have developed useful frameworks to assess and describe the quality of spatial data, but users are judging data on their apparent precision.

This notion of apparent precision is a chilling forecast, but we can still change the tide. We need to transfer traditional geodetic quality measures to modern data such as point clouds. We also need to find better ways for visualization, which is something we can perhaps learn from meteorologists.

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