What is persistence?

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It is not surprising that different units and scales are used to measure different phenomena. So why the Gromov-Hausdorff and bottleneck distances are the only one used to measure inputs and outcomes of topological data analysis applied to a variety of different data sets? My aim is to explain and illustrate a new approach to persistence. I will present both mathematical and real life data examples illustrating effectiveness of our approach to improve various classification tasks.