

EGU22-1437

<https://doi.org/10.5194/egusphere-egu22-1437>

EGU General Assembly 2022

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Identifying conditions that sculpted bedforms - Human insights to build an effective artificial intelligence 'AI'

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Insights from a geoscience communication activity, verified using preliminary investigations with an artificial neural network, illustrate that observation of humans' abilities can help design an effective machine learning algorithm - colloquially known as Artificial Intelligence or 'AI'. Even given only one set of 'training' examples, survey participants could visually recognise which flow conditions created bedforms (e.g. sand dunes, riverbed ripples) from their shapes, but an interpreter's geoscience expertise does not help. Together, these observations were interpreted as indicating that a machine learning algorithm might be trained successfully from limited data, particularly if it is 'helped' by pre-processing bedforms into a simple shape familiar from childhood play. [<https://gc.copernicus.org/articles/5/11/2022/>]