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# Artificial intelligence and the rise of optical computing

Photonic data-processing is well-suited to the age of deep learning



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Dec 20th 2022

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MODERN INFORMATION technology (IT) relies on division of labour. Photons carry data around the world and electrons process them. But, before optical fibres, electrons did both—and some people hope to complete the transition by having photons process data as well as carrying them.

Unlike electrons, photons (which are electrically neutral) can cross each others' paths without interacting, so glass fibres can handle many simultaneous signals in a way that copper wires cannot. An optical computer could likewise do lots of calculations at