

## **The analogue logical network – AI unplugged part II understanding pattern recognition**

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This abstract is part of three thematically related abstracts by Paula Bleckmann, Robert Neumann, Norbert Harz which would fit together well in this order and will also form part of HERMMES practice collection.

There are various projects in the field of teaching the functionality of AI and neural networks in which the functionality is explained on the computer. What most of these projects have in common is that they use digital devices and thus teach the functionality primarily on a cognitive level. The CS unplugged approach follows a path that attempts to teach the understanding of the algorithms not only cognitively but also through kinesthetic activities (Bell et al., 2012). In the past, this approach has focused more on primary school. Based on the project "Brain in a bag" (Brain in a bag - Queen Mary University of London, n.d.), the aim is to show how the functionality of a logical network can also be taught by using the methods of CS unplugged. At the same time, a distinction should be made, as the title "Brain in a bag" suggests that the human brain works in exactly the same way as a logical network. One focus of the project will be to focus on the differences between an logical network with nodes and a human brain with neurons.

### **Literatur**

Bell, T., Lambert, L., & Marghitu, D. (2012). CS unplugged, outreach and CS kinesthetic activities. Proceedings of the 43rd ACM technical symposium on Computer Science Education, 676.

<https://doi.org/10.1145/2157136.2157410>

Brain in a bag—Queen Mary University of London. (n. J.). Abgerufen 25. September 2024, von <https://www.qmul.ac.uk/hub/electronic-engineering-and-computer-science-hub/brain-in-a-bag/>