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Interactive Machine Learning in Health Informatics – Introduction and four application examples

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<https://hci-kdd.org/machine-learning-for-health-informatics-course>

Introduction to the iML-concept and background

Holzinger, A. 2016. **Interactive Machine Learning for Health Informatics: When do we need the human-in-the-loop?** Springer Brain Informatics, 1-13,

Open Access via: [doi: 10.1007/s40708-016-0042-6](https://doi.org/10.1007/s40708-016-0042-6)

For a light German Version see: <https://pure.tugraz.at/portal/files/3107876/iML.pdf>

Application example 1

Hund, M., Böhm, D., Sturm, W., Sedlmair, M., Schreck, T., Ullrich, T., Keim, D. A., Majnaric, L. & Holzinger, A. 2016. **Visual analytics for concept exploration in subspaces of patient groups: Making sense of complex datasets with the doctor-in-the-loop.**

Brain Informatics, 1-15,

doi: [10.1007/s40708-016-0043-5](https://doi.org/10.1007/s40708-016-0043-5)

Application example 2

Kieseberg, P., Malle, B., Frühwirt, P., Weippl, E. & Holzinger, A. 2016.

A tamper-proof audit and control system for the doctor in the loop.

Brain Informatics, 1-11,

doi: [10.1007/s40708-016-0046-2](https://doi.org/10.1007/s40708-016-0046-2)

Application example 3

Yimam, S. M., Biemann, C., Majnaric, L., Šabanović, Š. & Holzinger, A. 2016.

An adaptive annotation approach for biomedical entity and relation recognition.

Brain Informatics, 1-12.

doi: [10.1007/s40708-016-0036-4](https://doi.org/10.1007/s40708-016-0036-4)

Application example 4

Girardi, D., Küng, J., Kleiser, R., Sonnberger, M., Csillag, D., Trenkler, J. & Holzinger, A. 2016.

Interactive knowledge discovery with the doctor-in-the-loop: a practical example of cerebral aneurysms research.

Brain Informatics, 1-11,

doi: [10.1007/s40708-016-0038-2](https://doi.org/10.1007/s40708-016-0038-2)