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| DLICV |
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| DLMUSE |

Overview:

Reference labels for training the DLICV and DLMUSE models were generated from the ISTAGING dataset, which contains MRI scans of 73,291 participants from 14 studies. A training dataset was created from 10 studies, while 4 studies were kept for out-of-sample validation. The final training dataset included T1 scans and ROI labels of 1900 subjects that reflect the variability in the complete ISTAGING dataset. The training sample included subjects with ages from 24 to 93 and is 53% female.

DLICV and DLMUSE are based on the nnU-Net architecture and framework. nnU-Net is a self-configuring neural network architecture designed for biomedical image segmentation tasks. Developed as an extension of the U-Net architecture, nnU-Net incorporates multiple refinements to enhance performance and generalizability across diverse segmentation challenges. The primary strength of nnU-Net lies in its self-adaptive nature, which allows for task-specific optimization without manual tuning. In a number of public segmentation competitions, nnU-Net has consistently demonstrated strong performance, showcasing its efficacy and reliability across a range of segmentation tasks.