



# Social Media for Accessible Education to Global Trainee Audiences: AI in Neuro-oncology

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#### Introduction

Social media has helped build & share content in the medical community. Being part of users' daily routines, it promotes engagement in learning & inspires interactions between learners & mentors.

### Hypothesis

We sought to create a resourceful educational platform for the ASNR MICCAI BraTS Challenge, a landmark community benchmark event for brain tumor segmentation & analysis.

## Methods

We launched a social media initiative in 2023 on X, LinkedIn, Instagram & WhatsApp to help learners build foundational knowledge of neuroimaging. We leveraged these platforms to host our lecture series, & upload them onto YouTube, summarize concepts as bite-sized information, relay the process of image annotation & algorithm development & guide learners towards open access resources for education. We utilized Hootsuite, Iconosquare & Chatilyzer to calculate metrics & analyze the impact of our online presence.

## Results

We published 55 posts on X through 3 iterations (2023, 2024, 2025) of BraTS since February 2023 & garnered 112,460 impressions, with average engagement rate of 3.96% per post. The highest engagement rate for a post is 8.97%. There has been 264% growth of users viewing our content, 478% growth of users amplifying our posts, and audience growth rate of 8.45% since the day of broadcast of the 2025 Challenge. We published 8 LinkedIn & 8 Instagram posts for the 2025 Challenge, having average engagement rates of 11% & 2.99% per post respectively. We set up a WhatsApp community to support student coordinators through the 2025 image annotation pipeline with faculty annotators. We have exchanged 495 messages here, with an average of 12 messages/day. This annotation protocol is a unique opportunity for students to interact, learn & develop professional relationships with faculty while also simulating the experience of an MR image analysis internship.

### Conclusion

Our initiative is using a dynamic learning framework to foster an expanding network of committed learners and mentors and increase awareness on the necessity of meticulously curated public databases for the development of precise and accurate algorithms for brain tumor analysis. This approach has become valued by our internationally distributed community of students and faculty for enhancing educational and professional growth in the world of neuroimaging and acknowledging their contributions to a revolutionary undertaking in the domains of open science and artificial intelligence.

# Figure(s)



Figure 1. Dynamics of traditional and digital learning methods

#### Keywords

Applications; Artificial Intelligence/Machine Learning; Clinical Workflow & Productivity; Emerging Technologies; Enterprise Imaging; Quality Improvement & Quality Assurance