



Challenges / Opportunities with Artificial Intelligence

Growth Model User's Group

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What is the potential role of AI with forest inventory growth modeling?

- Data Collection and Processing
- Predictive Modeling and Growth Simulation
- Individual Tree Analysis

- Benefits for Forest Management
 - efficiency
 - accuracy
 - cost-effectiveness
 - Improved decision-making
 - Improved monitoring

“Turns out, AI is a sensitive topic”, (GMUG Anonymous, 2005)

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“The future is an FVS engine that uses AI or kNN to impute growth from FIA plot data.”

AI or Human?

“integrating AI (such as deep learning or reinforcement learning) or k-Nearest Neighbors (kNN) approaches for growth imputation would represent a major evolution in predictive modeling.”

AI or Human?

“In essence, the future of forest growth modeling is trending towards more data-driven and AI-enhanced approaches, which will leverage the wealth of information provided by FIA and other sources”

AI or Human?

“If any of you must list what you did this week for your boss, you can do what I did and list using machine learning to develop some relationships to predict stuff. “

AI or Human?

On site index of 100, how tall will a Douglas fir tree that is 45 years old be in five years?