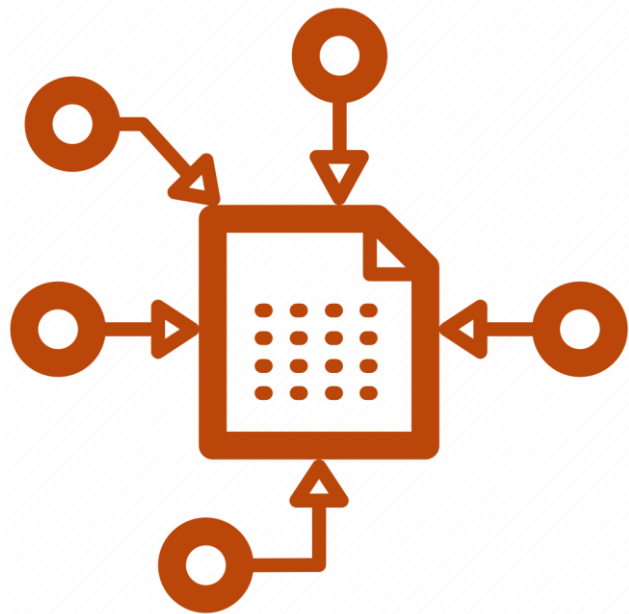# *Shaping the Future of the Electronic Notebook (ELN)*

How Can Allotrope Help Drive Digital Lab Integration to Enhance ELN Effectiveness ?
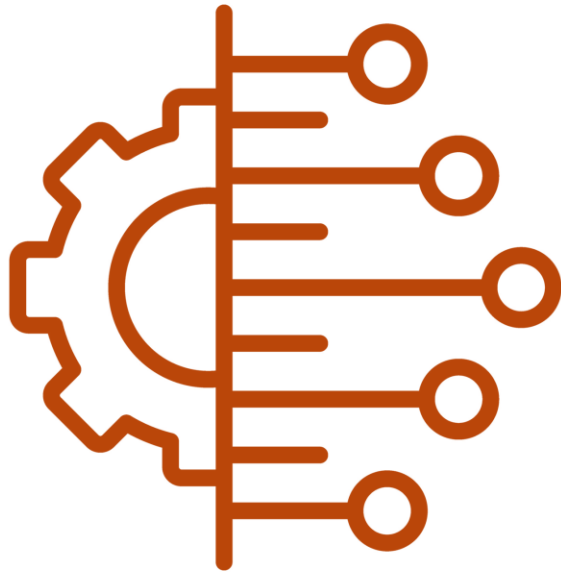
Nov 2024

What is the role of the electronic notebook (ELN) in a future data-centric ecosystem ?

Data Capture

- Which parts of ELNs would benefit from application of data standards to improve the quality and consistency of data capture ?

- How would you like to apply data standards to an ELN ?
  - Configurable templates and fields (user) ?
  - Implement natively in ELN (vendor) ?

- When would data standards not be appropriate for data capture in ELNs ?

- What role should Allotrope play in the standardization of ELN data capture ?

What is the role of the electronic notebook (ELN) in a future data-centric ecosystem ?

Data Integration

- o How will data standards simplify the design of interfaces between applications (e.g., ELN and instrument data sources) ?

- o How generalizable could an ELN interface based on the ASM standard be ?

- o What role should Allotrope play in the standardization of data integration with ELN ?

What is the role of the electronic notebook (ELN) in a future data-centric ecosystem ?

Data Consumption

- Will data captured in ELN applications be moved to the cloud in the future for centralized access ?

- Will ELN data be transformed in the cloud as necessary to form data products (i.e., make it more analytics-ready) ?

- What are the most critical use cases for the consumption of ELN data ?
    - Search and data mining ?
    - Routine visualization, trending, and analytics ?
    - Modeling and machine learning ?
    - Prediction and generative AI ?

- What role should Allotrope play to facilitate the consumption of ELN data in the future ?