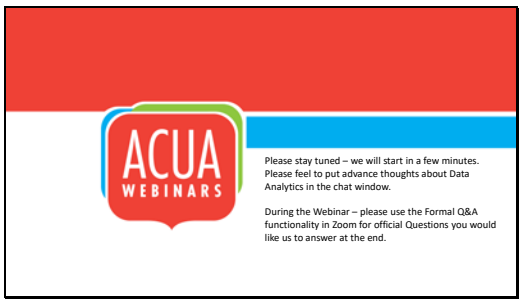
Slide 1



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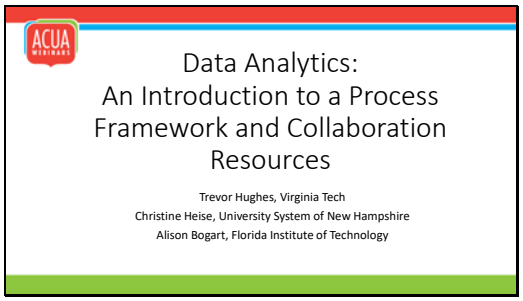


Slide 3

Slide 4

Learning Objectives

- Develop an understanding of a conceptual framework for the data analytics process.
- Discuss analytics as a process and the individual steps within that process.
- At a high level, identify the functions that auditors should complete in each phase of a data analytics project.
- Discuss forthcoming data analytic Kick Starter resources where members can contribute and collaborate to continue learning beyond the webinar.

Slide 5

Agenda

- Sub-committee Purpose = Make data analytics attainable
- Preview of Kick Starter to be released by November 1
- Future Collaboration
  - Focused Discussions
  - Relevant File Sharing
- Integrated curriculum across learning mechanisms

Slide 6

Polling Question #1

What is your personal level of experience with performing data analytics (DA) throughout your career?

- ❑ None
- ❑ We have someone that does it for us
- ❑ Less than 3 projects utilizing some kind of DA
- ❑ Between 3 - 11 DA projects
- ❑ Too many DA projects to remember

Slide 7

What *IS* analytics?

Slide 8

What benefits does analytics bring?

Who wouldn't want help with the heavy lifting?

Slide 9

Preview of Kickstarter

Getting Started with Data Analysis

Slide 10

What do we mean when we say analytics is a process?

- Analytics is a process, not an output
- The prime goal is to answer a question and/or to recommend a course of action
- Supports decision making and planning

Slide 11

Getting Started

- Hardest part of the process
- This is about the what, but also the why
- If you can't see the target, it is very hard to hit

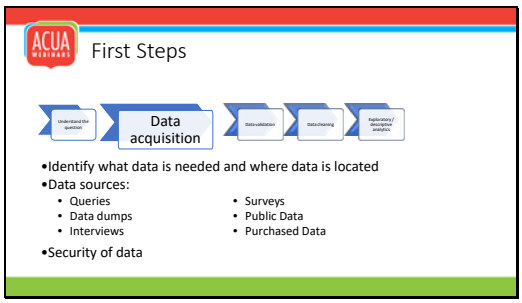
Slide 12

Polling Question #2

What type of software do you use **most** frequently to perform data analytics?

- ❑IDEA by Audimation
- ❑ACL by Galvanize
- ❑Tableau
- ❑Python
- ❑Other (e.g. Arbutus, etc.)
- ❑Excel - because none of above currently available to me

Slide 13



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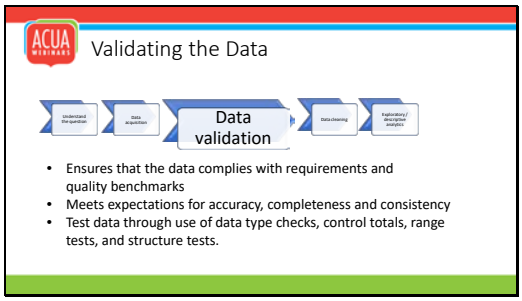

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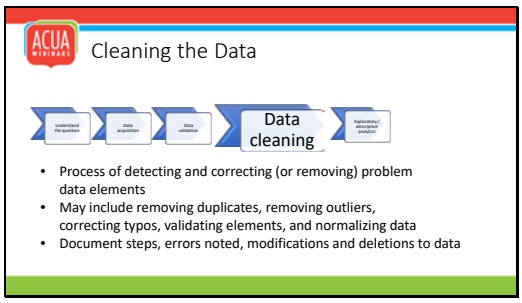


Slide 16

Polling Question #3

How often does your institution use data analytics in audits?

- ❑ Daily
- ❑ Weekly
- ❑ Monthly
- ❑ A few times a year
- ❑ Very infrequently
- ❑ Never (hope to soon)

Slide 17

Exploring the Data

- Statistics 101 – mean, median, mode, measures of central tendency and distribution
- Helps the analyst understand the data and highlight attributes that matter most in the data
- Can show which test may be applicable

Slide 18

Transforming Your Data

- Modification of every element by application of a standard process
- This might mean changing categorical values to continuous or binary variables
- This can change the measurement scale so pre and post transformation results may not be directly comparable

Slide 19

Getting In Deep

Advanced analytics

- This is the heavy lifting!
- Examples include:
  - ANOVA
  - Principal component analysis
  - Logistic regression
  - Cluster analysis
  - Decision trees
  - Interdependence tests
  - Neural networks
  - Multiple regression

Slide 20

Making An Impact

COMMUNICATION

- An analyst can do the most cutting-edge work but if the consumer doesn't understand it, the effort is meaningless
- This must tie to understanding the question. If you really understand the question, this should take care of itself
- Find the right media – visualization, tables, descriptive statistics, whatever works

Slide 21

Polling Question #4

Which software does your institution use for ***most*** of these functions: HR, Financial, Student Records

- ❑ Banner
- ❑ Workday
- ❑ Oracle
- ❑ Peoplesoft
- ❑ Legacy Mainframe
- ❑ Other (SAP, Kuali, etc)

Slide 22

Future Initiatives

- Avoid generic posting in large ACUA open forum
- Specific websites for
  - Discussion
  - Files: to get started **or** to enhance
- Encourage collaboration in focused groups
  - For software specific advice / challenges
  - By auditable area topic

Slide 23

Knowledge Share with Like Minded

Original Post 12/2018

Add your name to the informal list at this site:
http://tiny.cc/ACUAdataLOVER

Slide 24

New Community for Data Analytics

Special place to have focused discussions by software and/or topic

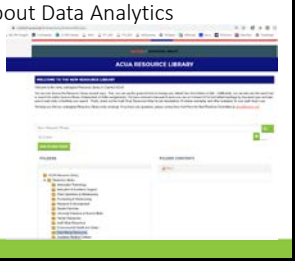
Posting standardization:

1. Auditable Area Topic (FinAid)
2. Raw Data Software (Banner)
3. DA software (ACL)
4. Expertise Level (Intermed)

Slide 25

File Sharing about Data Analytics

Utilize Resource Library File Structure to create subfolders plus #hashtags to aggregate similar relevant content



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Polling Question #5

Which of the following analytic projects do you have the most interest in?

- ❑ P-Cards
- ❑ Student Financial Aid
- ❑ Sponsored Research
- ❑ HR/Payroll
- ❑ Travel
- ❑ Vendor and A/P process (Conflicts of Interest, Duplicate Payments)

Slide 27

Integrated Audit Curriculum

Four-year plan that ties AuditCon, AuditInteractive, and webinars together

- AuditCon
  - Broad, process-based discussion that focus on a specific project.
    - The goal is how to THINK about analytics
- AuditInteractive
  - Specific technical training that puts special topics into the framework we discussed earlier.
    - The goal is how to DO parts of the process
- Webinars
  - Discussions about upcoming kick starters.
    - This puts the how to do into the context of the overall process

Future topic: how individual presenters can repurpose their formal ACUA Presentations into our File Resource Area without oversharing protected content

Slide 28

Final Sneak Peek

Last page of Kick Starter Includes Hyperlinks to Additional resources

Slide 29

Wrap-up

- Questions ?

Next Steps:

- New deep dive resources & webinars quarterly
- Complete Google Sheet for Software & Experience for your Institution
  - http://tiny.cc/ACUAdataLOVER
- Sign up for new DA community at:
  - https://connect.acua.org/communities/allcommunities

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