

CHALLENGES IN DATABASE SELECTION AND DESIGN

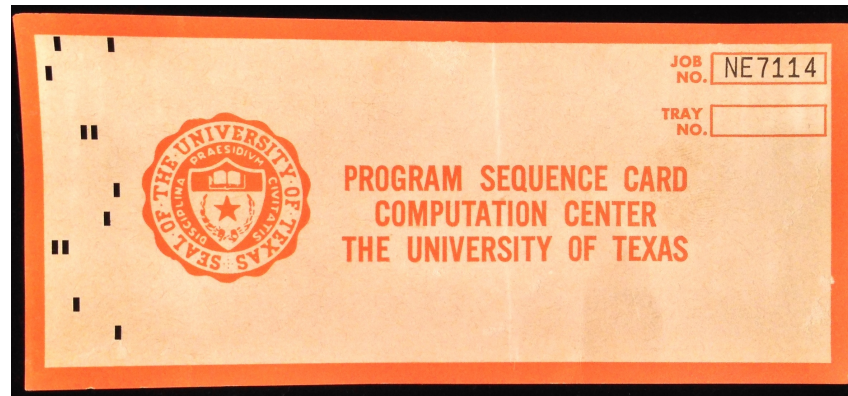
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Introduction

- Evolution of data management – written catalogs, punch cards, databases...



- Internal use → sharing data with the public & researchers
- Collections managers in the 21st century not only need to know about the discipline they work in, but they are also essentially information managers.

Understanding the Trajectory

- How do you choose a database management system
- How do you customize your choice to match your needs

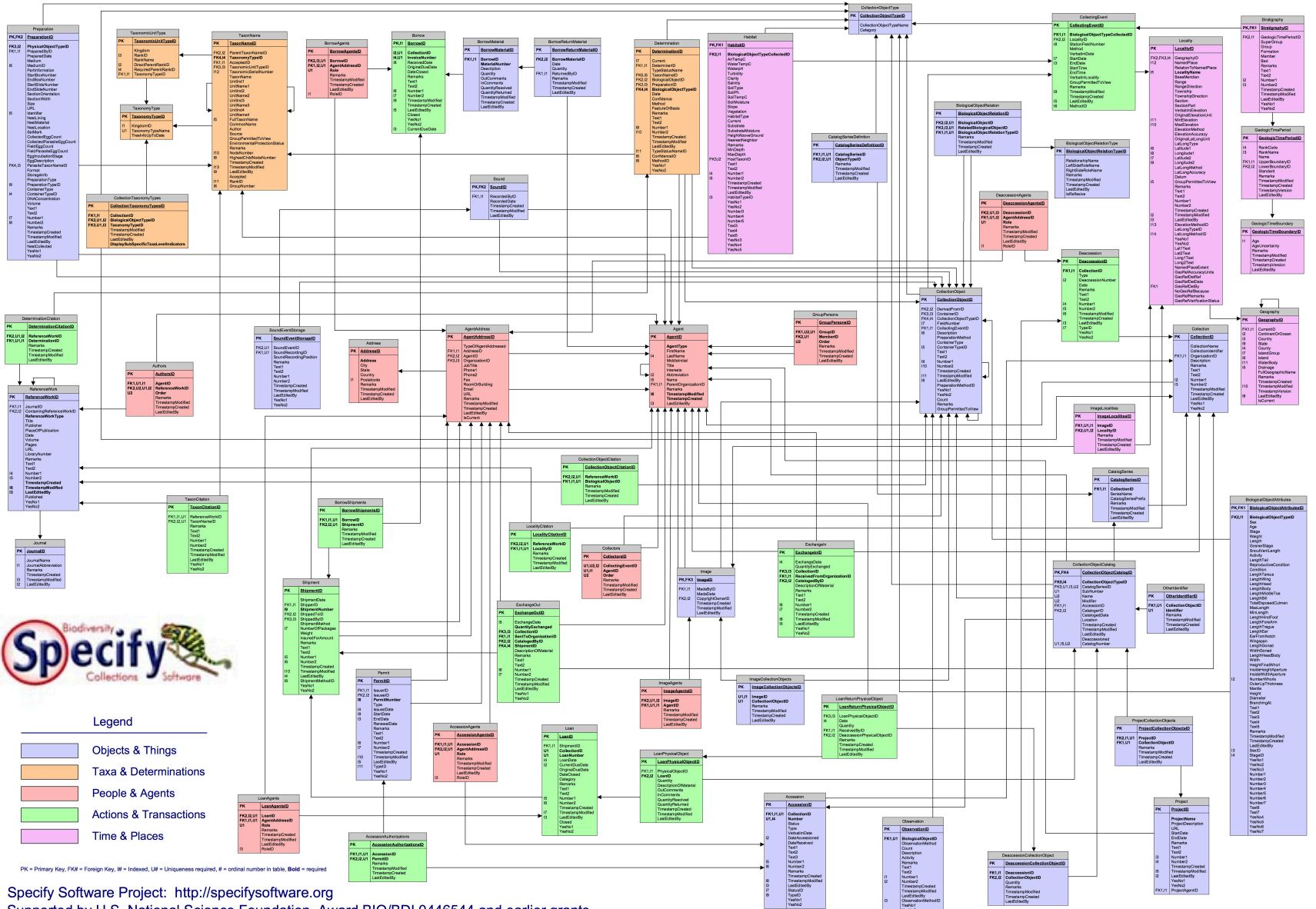
Research Questions - #1

- To what degree do natural history collections staff whom interact with a database understand its structure and how to **effectively manage** it?
 - Informational content is accurate.
 - Database is functional.
 - Could be exported to another platform with relative ease.

Research Questions - #2

- How do the structures of different natural history collections database schemas vary, and how well do these schemas match the information of the science they are mapping?

Specify Database Schema



Research Questions - #3

- Because databases play a key role in organizing and maintaining information within a collection, how will natural history collections databases and their schemas change to accommodate the emergence of various forms of derivative analytical data? How well are the caretakers of collections preparing for these changes?



Why?

- What training could be made available to natural history museum staff that work with a database?
- How could usability be improved to accurately capture information NHCs want to preserve?
- What would YOU want?

How to find the answers?

- Research protocol approved by The University of Texas at Austin's Office of Research Support Institutional Review Board (IRB)
- Visiting as many diverse kinds of NHCs as possible
 - Discipline
 - Database system used
 - Institution size
 - Geographically varied – ideally



How?

- Participants - collections staff that interact with and maintain the database as part of their job responsibilities
 - Audio-recorded
 - Anonymous and confidential
- Estimated time = approximately 2 hours per institution
 - 30 minutes to 2 hours per participant



Step 1 – Observation

- Participants are asked to perform specific, routine database tasks that fall within their job responsibilities
 - Specialization of tasks within a single institution

Step 2 – Replication

- Researcher repeats these tasks for herself
 - Eliminate bias from an individual's experience level

Step 3 – Interview

- Participants' opinions about the software in use at their institution
- Any experience with available technical support
- Any training experience
- How database tasks are divided among staff, if at all
- Operational questions of how certain things are done at the particular institution
- Future collections plans

Step 4 – Questionnaire

- Educational experience and relevant training
- Employment information
- Collection-specific information

Currently...

- Funding for travel?
- 2 site visits, 1 trial visit so far
- Recruitment and scheduling of future visits ongoing



Observations

- Very different database knowledge-levels
- Similar future goals
- A bit “Specify-heavy”

Questions for You

- As collections staff, what information would be helpful to learn from this study?
- Do you think Step 2 – Replication is a viable way to eliminate the bias of experience?
- Email – lbrensk@utexas.edu

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