



*A Platform-based Design Tool for the Development  
of Synthetic Biological Systems*

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*UC Berkeley*

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# The Problem



Lab 1

Tool 1

Multiple Tools

Tool N

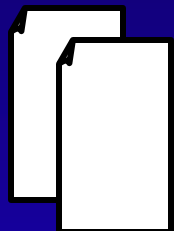
Communication Issues



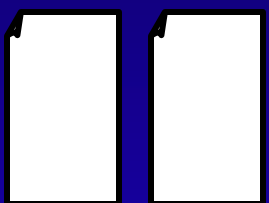
Lab Computer

Exists?  
Proprietary?

Iterative



Manual



Lab Database

Starting Design Multiple Files

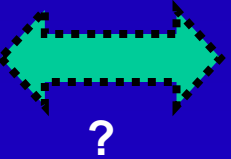
Need: An integrated design environment with flexible database support and a data model with a meaningful semantic

Data Model Support?

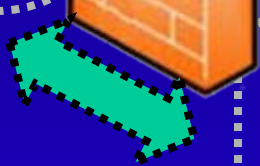
Lab N



Standards?

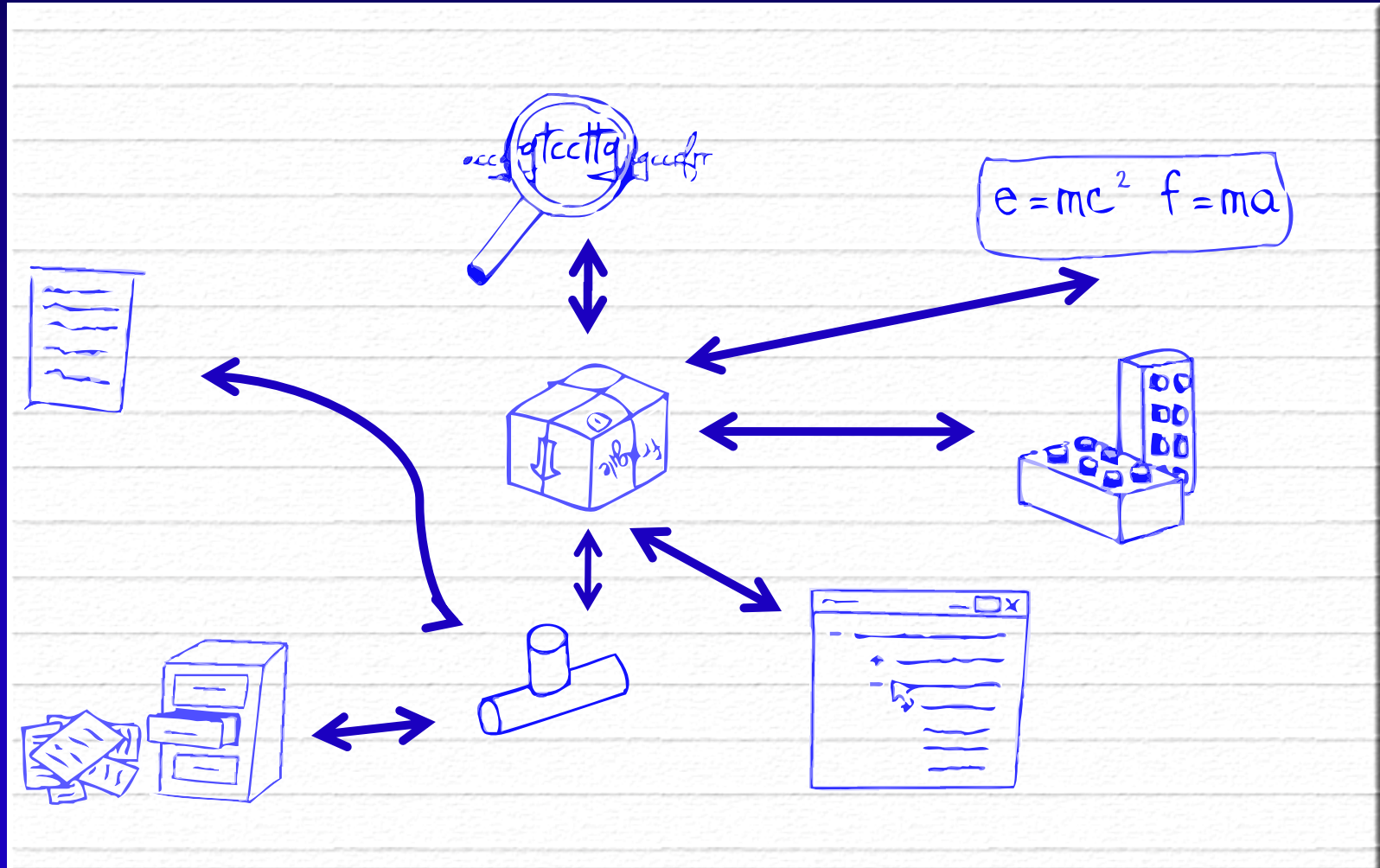


Access Issues

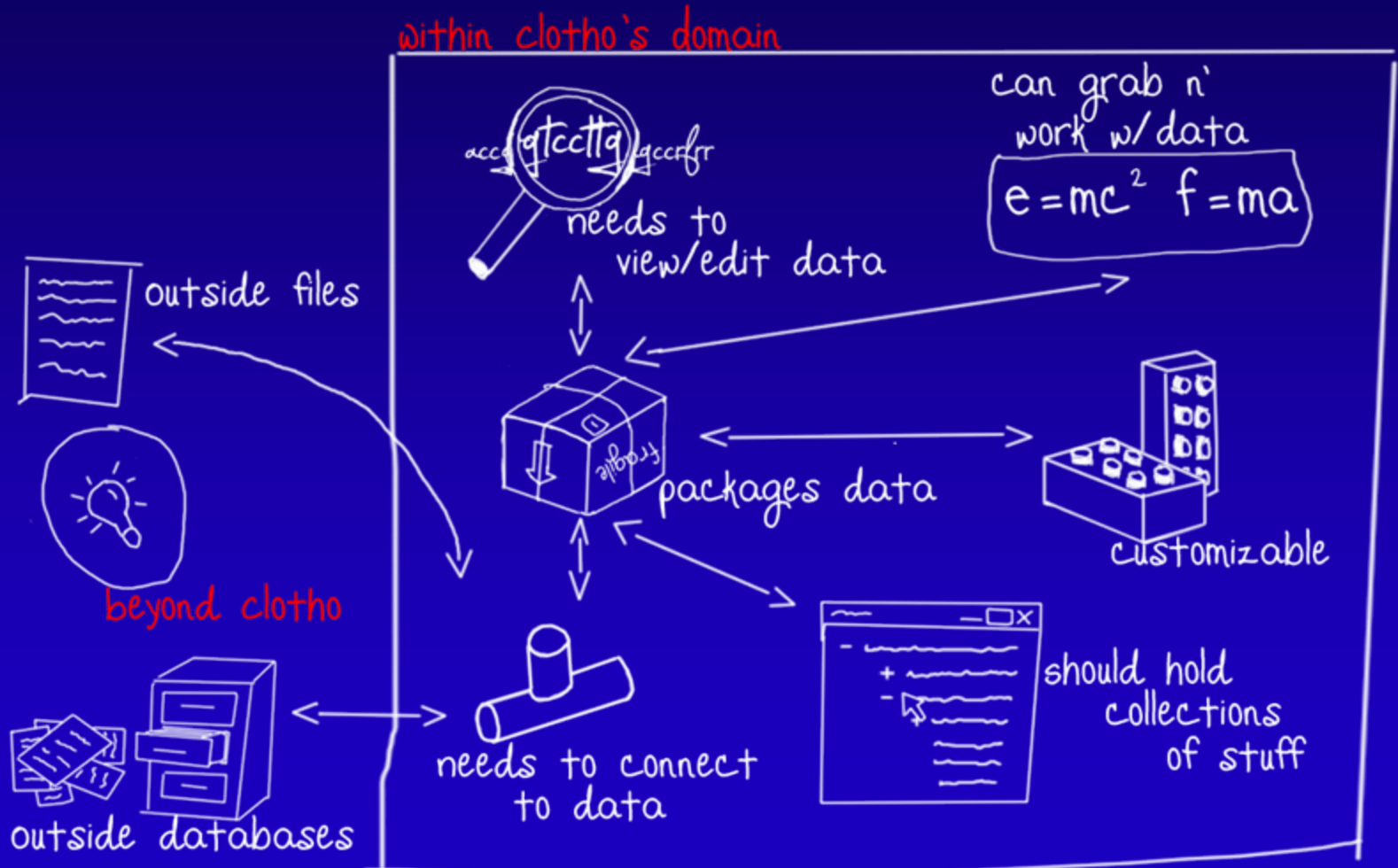


Global Repository

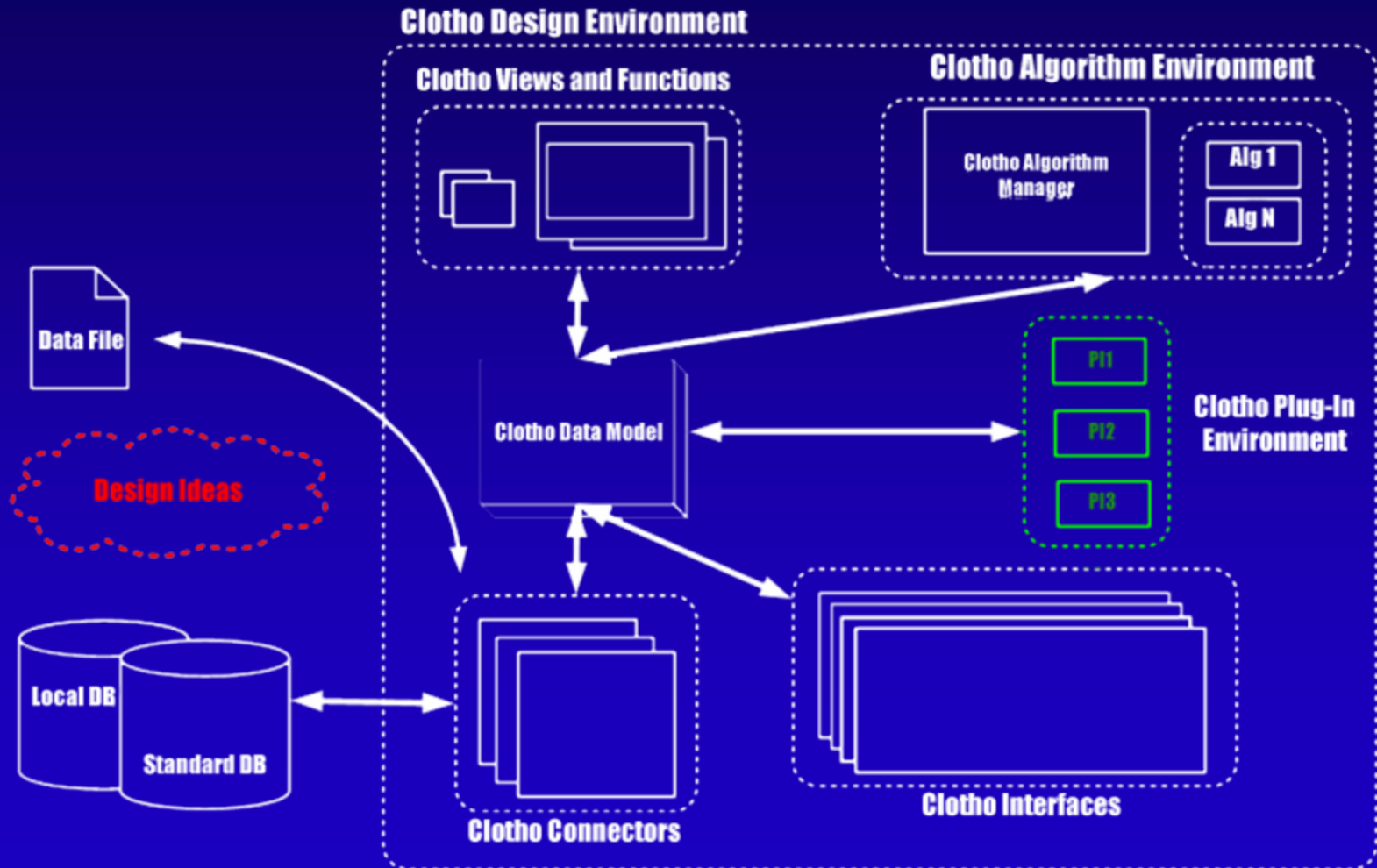
# The Solution



# The Solution



# The Solution



# What Clotho Can Do for YOU

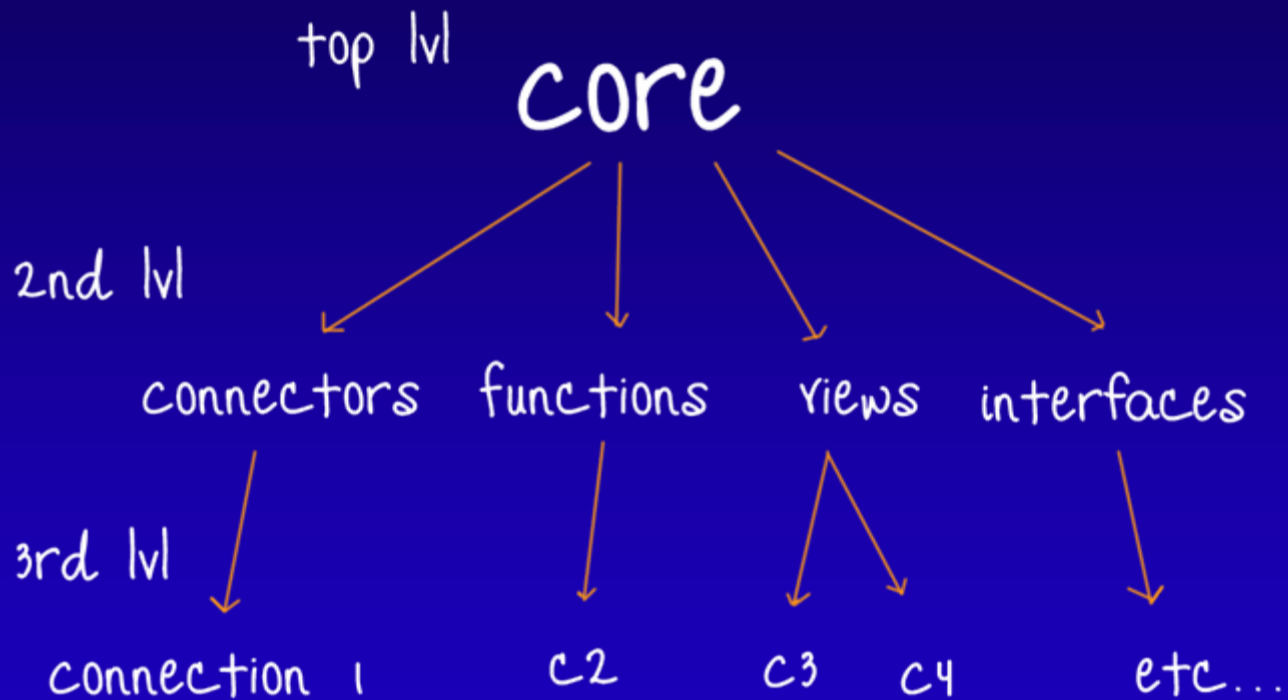
- Minimize cost and hassle – free, open source
- Consolidates workspace – integrated toolbox
- Allows database-database interaction – Clotho binding concept
- Gives user customizability – plug-in environment (demo)

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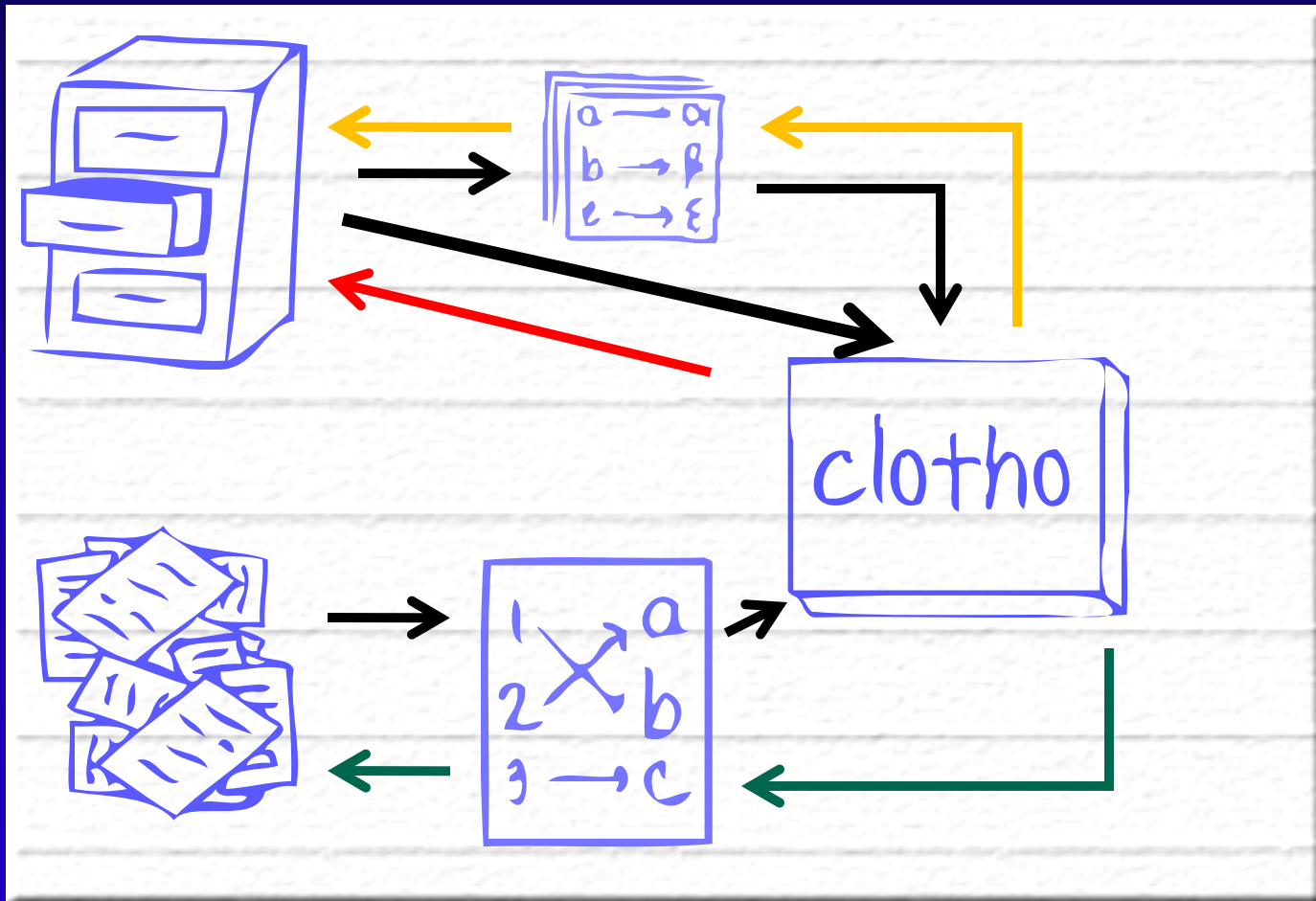
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- “Insert idea here”



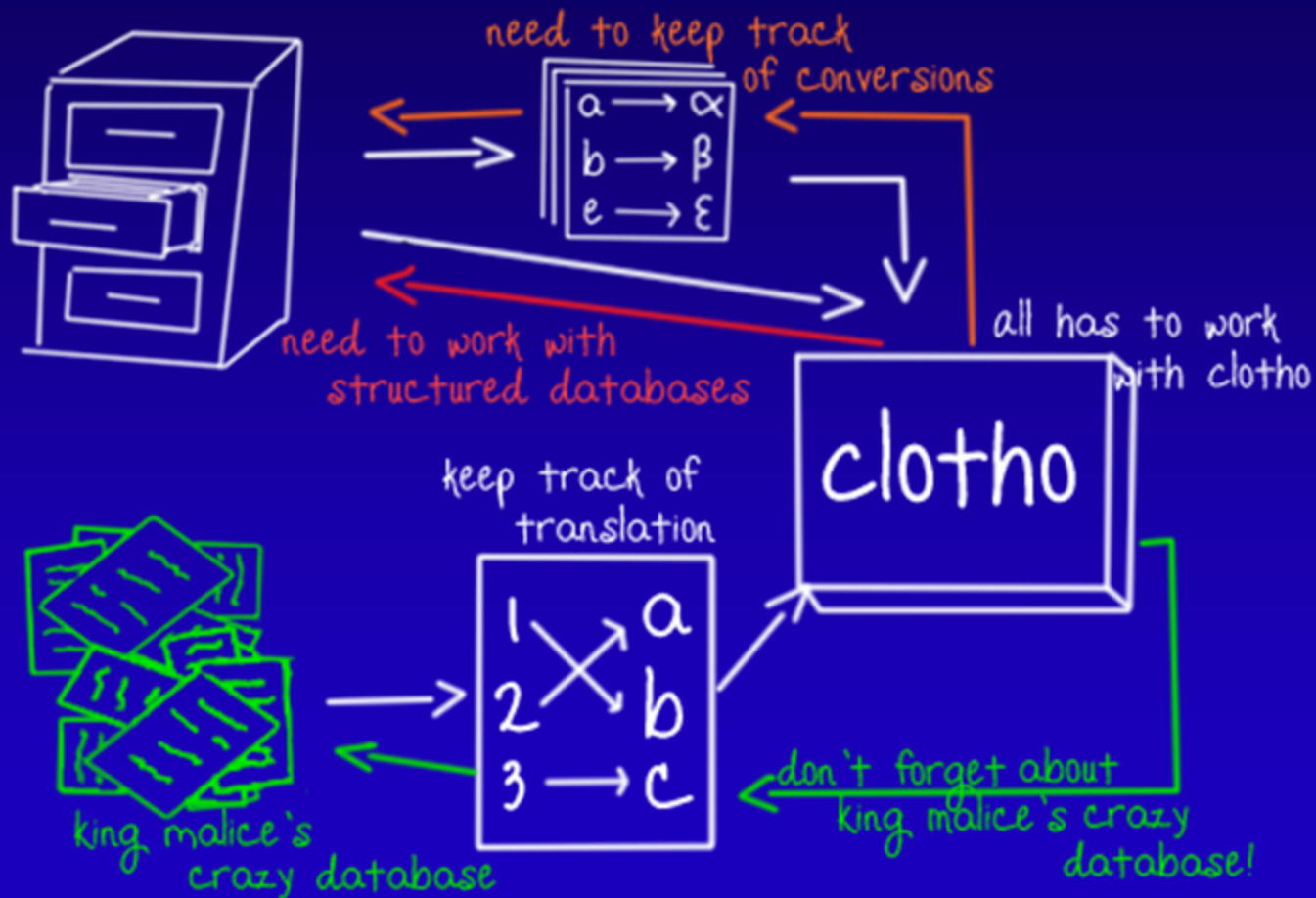
# Clotho Architecture



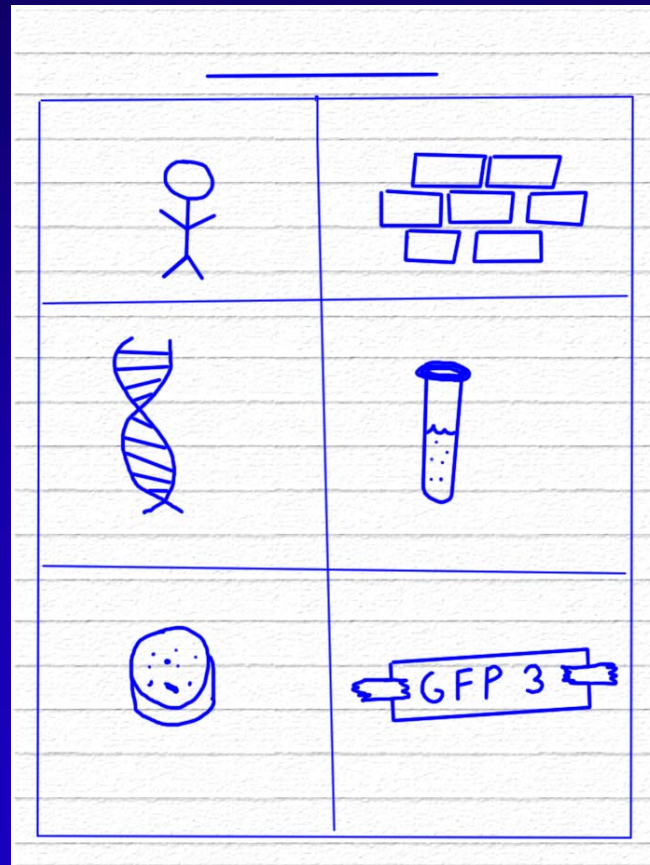
# Clotho Data Model



# Clotho Data Model



# Clotho Bindings



# Clotho Bindings



# Clotho Demonstration

# Overview

- Free/Open source tool
- Integrated toolbox
- Database-database compatibility
- Clotho Data Model
- Core-Hub-Connection infrastructure
- Plug-in Environment

# Development

- New design views
- Ability to interface with devices:  
Automation Robot support
- Increased support for other  
interchange format standards such  
as GFF3



# Acknowledgements

- UC Berkeley Wet Team – software testing
- Josh Kittleson for demo database support
- Will DeLoache for the optimal assembly algorithm
- Kate Spohr for keeping us organized
- Prof. Chris Anderson for his support and guidance



# Questions?

- Ask us now :)
- Catch us during the Jamboree
- Email us at:  
[ClothoDevelopment@googlegroups.com](mailto:ClothoDevelopment@googlegroups.com)