

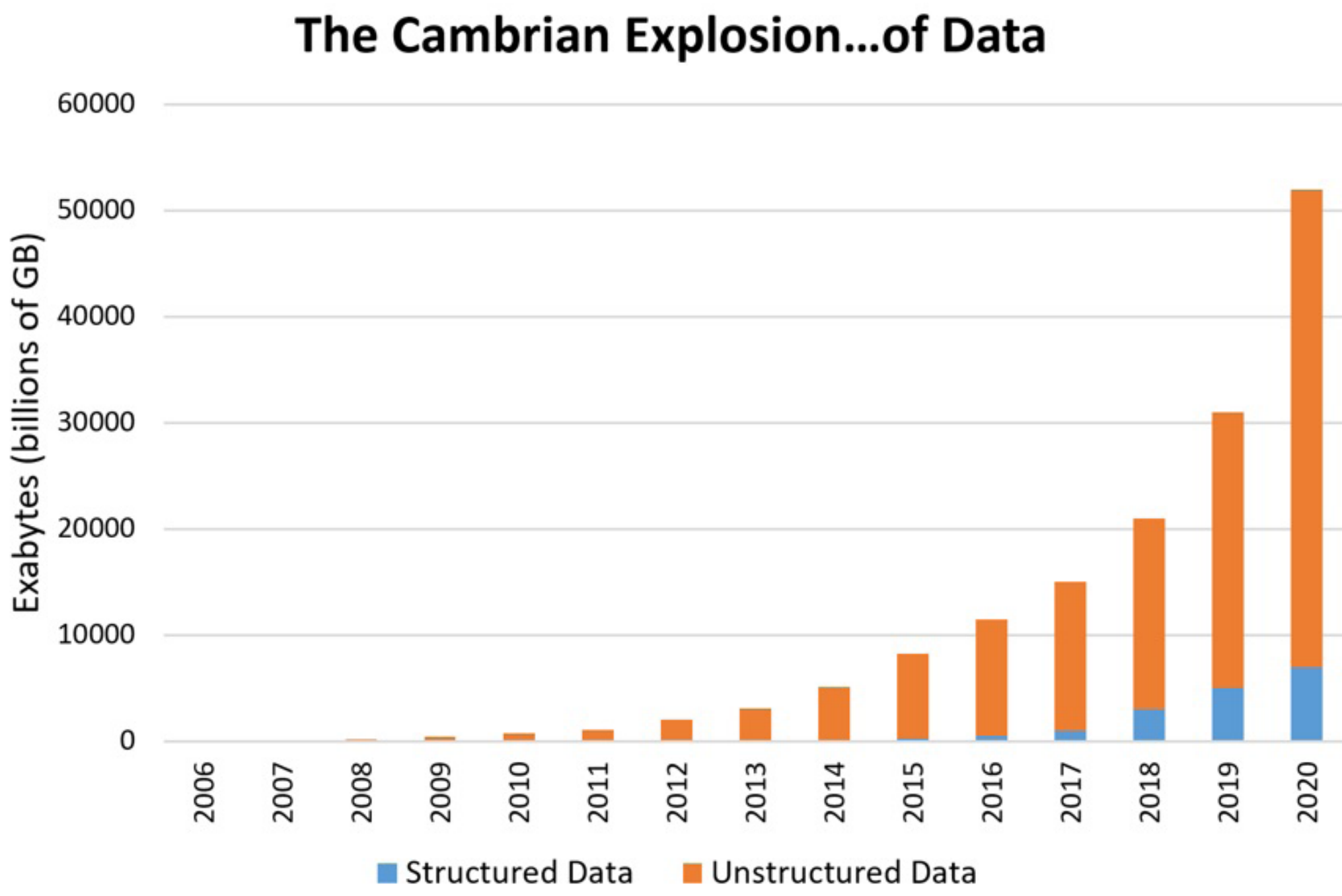


PERCIPIENCE: Finding Your Personal Data

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Structured data is highly organized and made up mostly of tables with rows and columns that define their meaning.
Examples are **Excel spreadsheets** and relational **databases**.

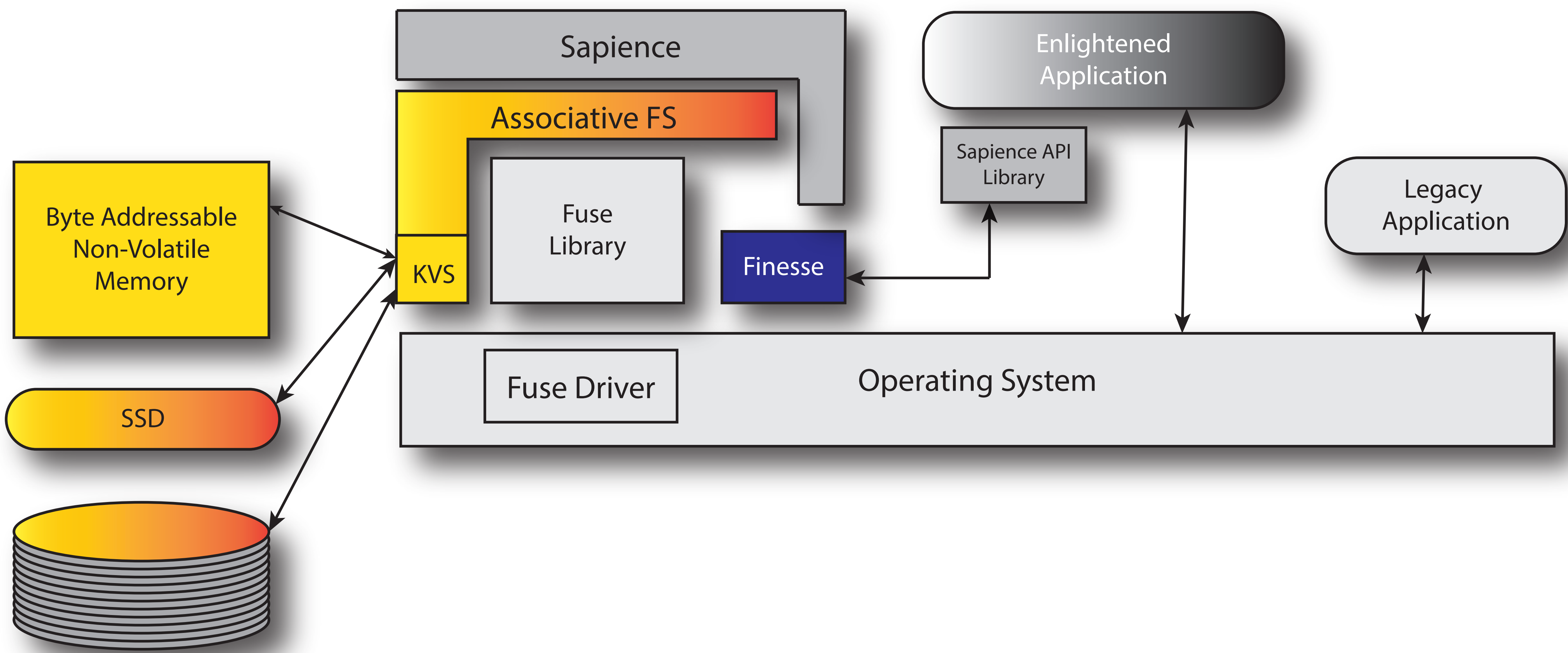
Source: Dr. Laura Rizzatti, EE Times, September 14, 2016.



Unstructured data is everything else.

- Examples include the following:
- Email messages, instant messages, text messages...
 - Text files, including Word documents, PDFs, and other files such as books, letters, written documents, audio and video transcripts...
 - PowerPoints and SlideShare presentations
 - Audio files of music, voicemails, customer service recordings...
 - Video files that include movies, personal videos, YouTube uploads...
 - Images of pictures, illustrations, memes...

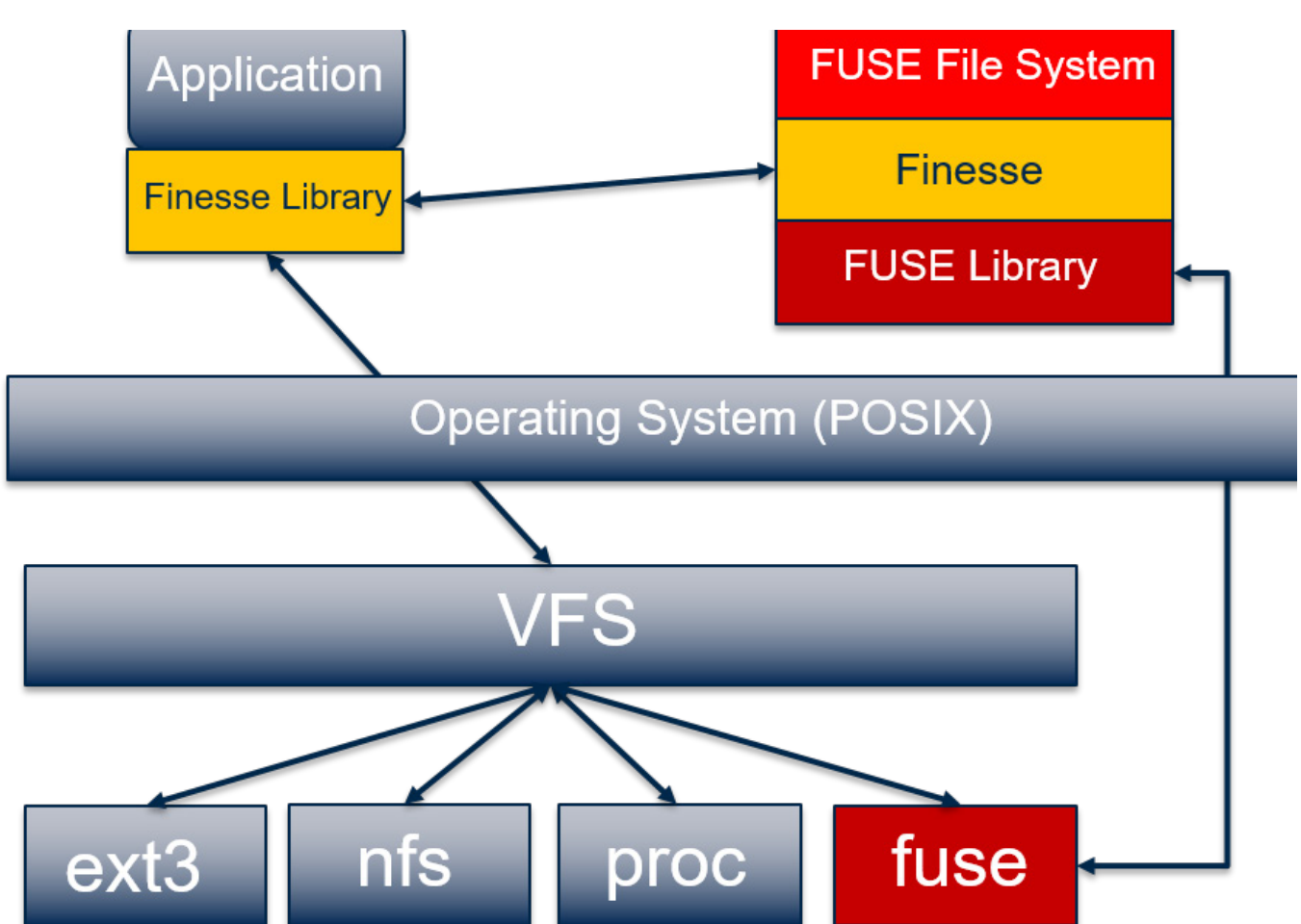
WE CAN NO LONGER FIND OUR INFORMATION!



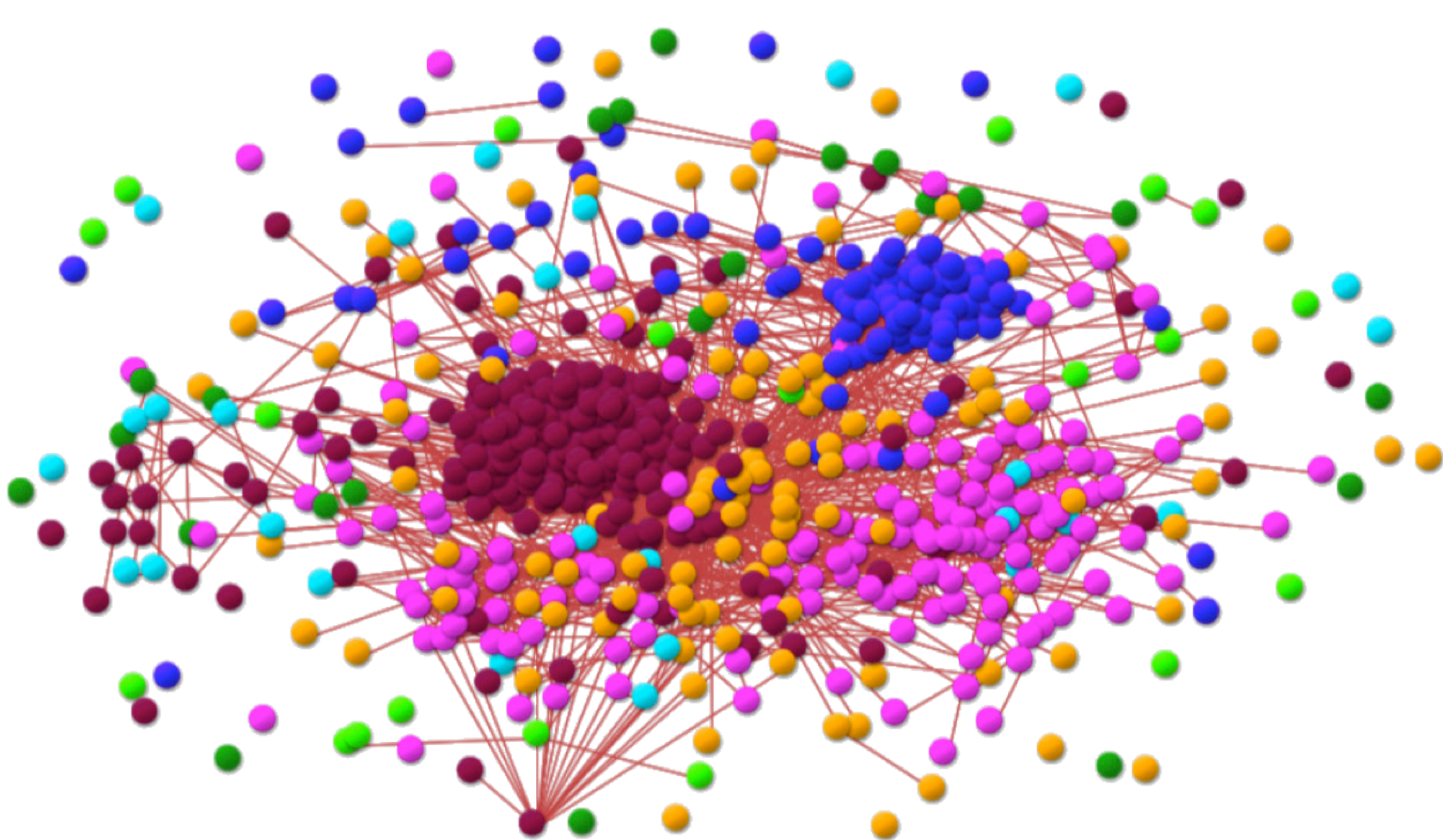
Finesse

Associative File System
(AssFS)

Sapience



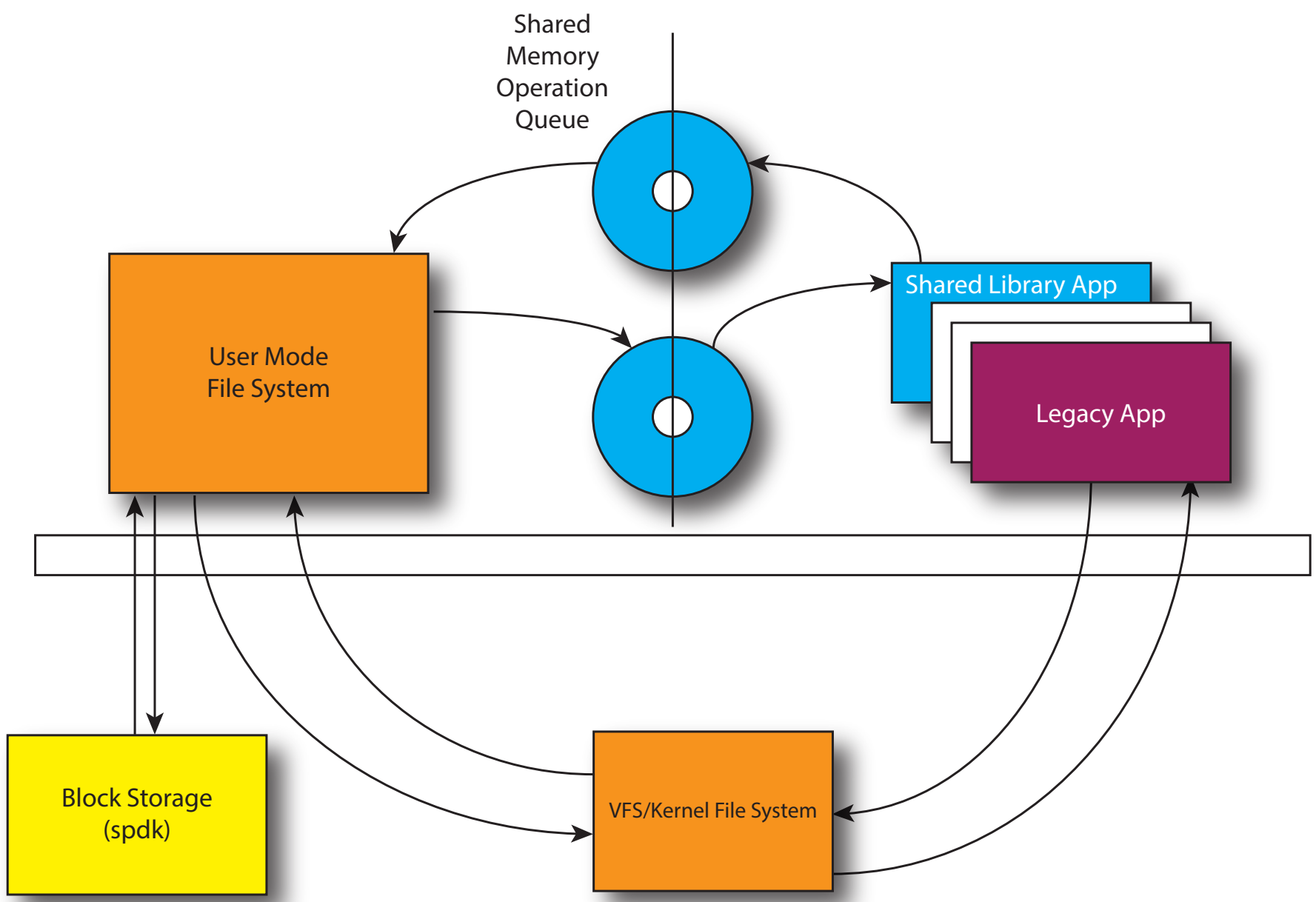
- Observations:
- Hierarchical File Systems do not capture relationships
 - Operating Systems *can* capture some relationships
 - Applications *should* capture contextual relationships



Working with HCI Researchers:

- Identify *enabling mechanisms*
- Agree on *Programming Interfaces*
- Extend system to *Enable Enhancements*
- *Review and Revise* as we learn more

- Challenges:
- Large body of existing applications
 - Rigid interfaces
 - Implicit state information
 - Performance
 - Semantics



Associative File System

- Files are *vertices*
- Relationships are *edges*
- Relationships are **global**
 - Provenance information
 - Temporal relationships
 - Application assigned relationships
 - External relationships (classifiers)
 - May go stale

GOAL:
Enable Applications
Find Your Data

