

The State of Linked Data

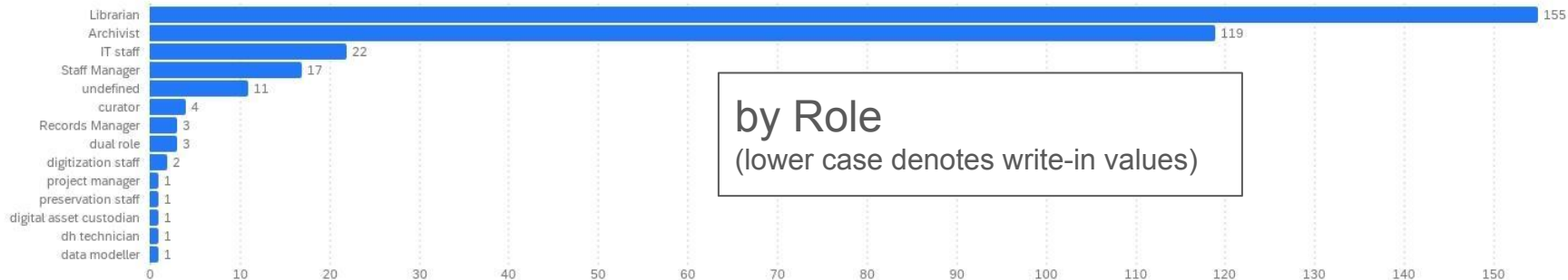
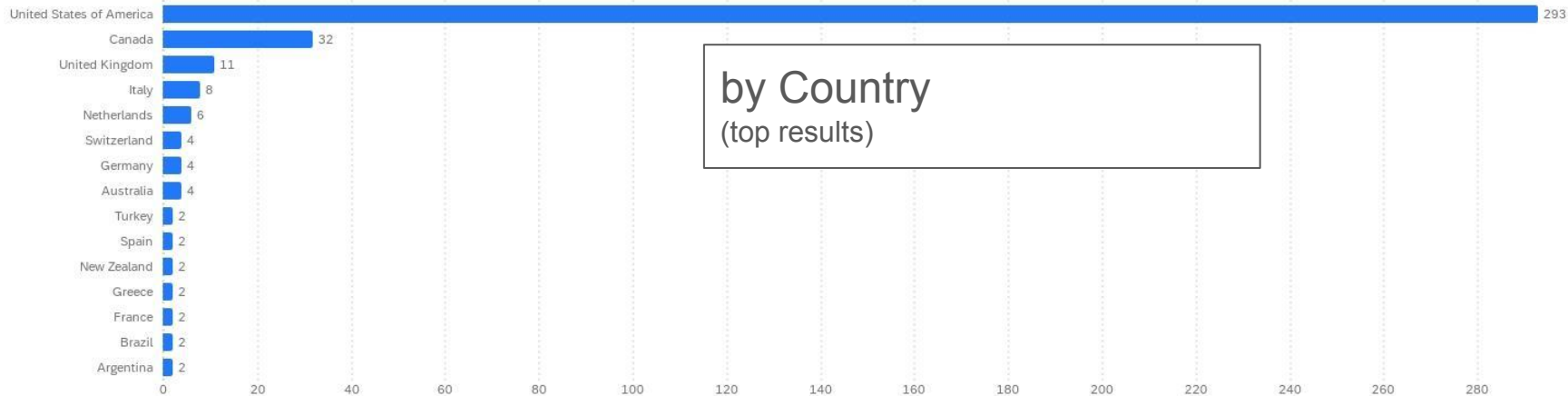
Regine Heberlein, Princeton University

Stephanie Luke, University of Illinois (Urbana-Champaign)

IFLA Standards and Metadata Mid-year Meeting and Symposium
Athens, Greece, 19 March 2025

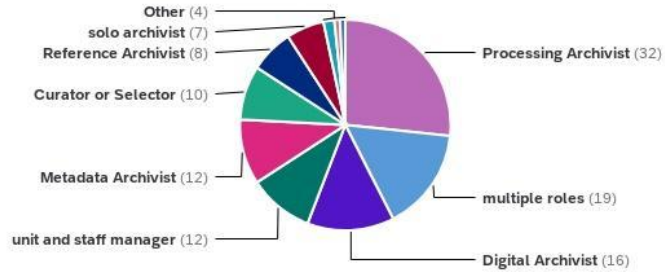
primarily a systems issue
a fool's errand real practical costs
we need more success stories
an expensive distraction
only available to larger institutions we need more practical guidance at the crossroads of something greater
existing data is not conducive to Linked Data pretty fun
need to prioritize backlog software engineers carry the burden
failed experiment aspirational Wikidata is best
so much possibility ontologists see themselves as philosophers, not engineers not much added value
little off-the-shelf software
only pays off in boutique situations
very little about any of this in my graduate program not included in my training unclear how many people use it
all of the energy has been eaten up by AI complexity
too many pilots successful discovery outcomes
too few librarians understand the concept of a data structure
completely impractical doomed to fail only viable for larger institutions
potential no longer sexy
wonderful in concept
much promise, little achievement
not worth the cost
huge technical problem

Demographics

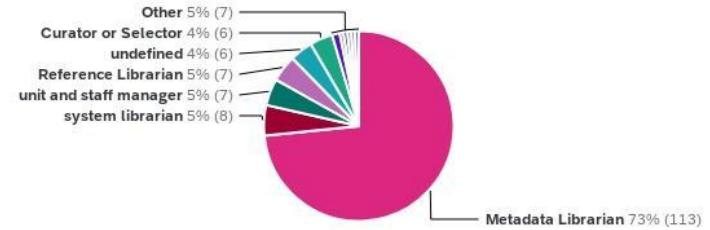


Information Professionals Role Breakdown

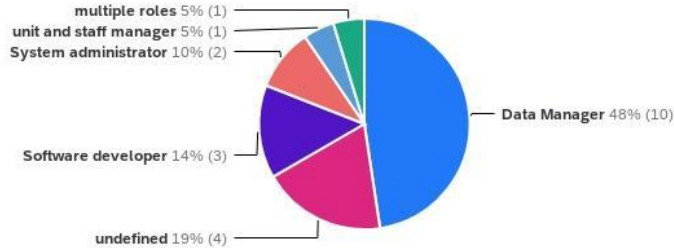
Archivists



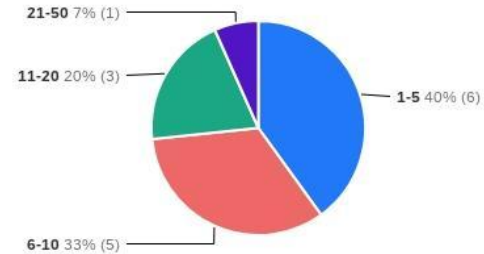
Librarians



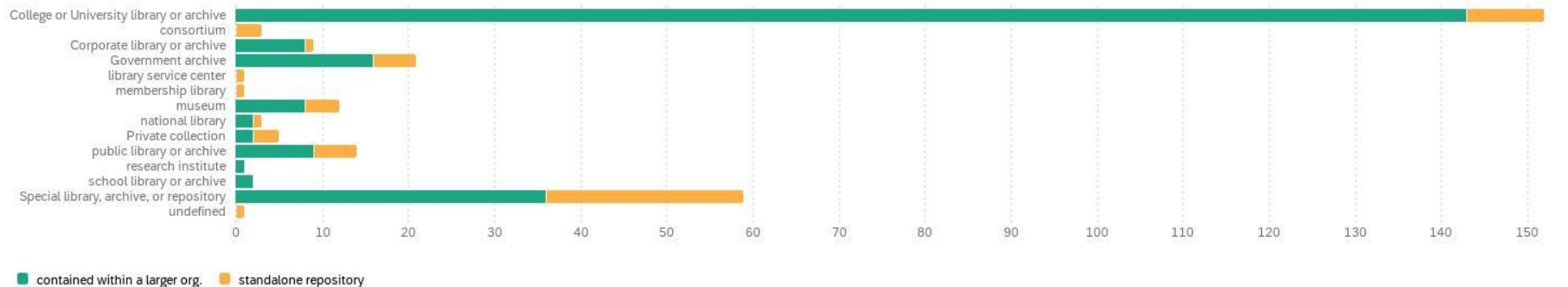
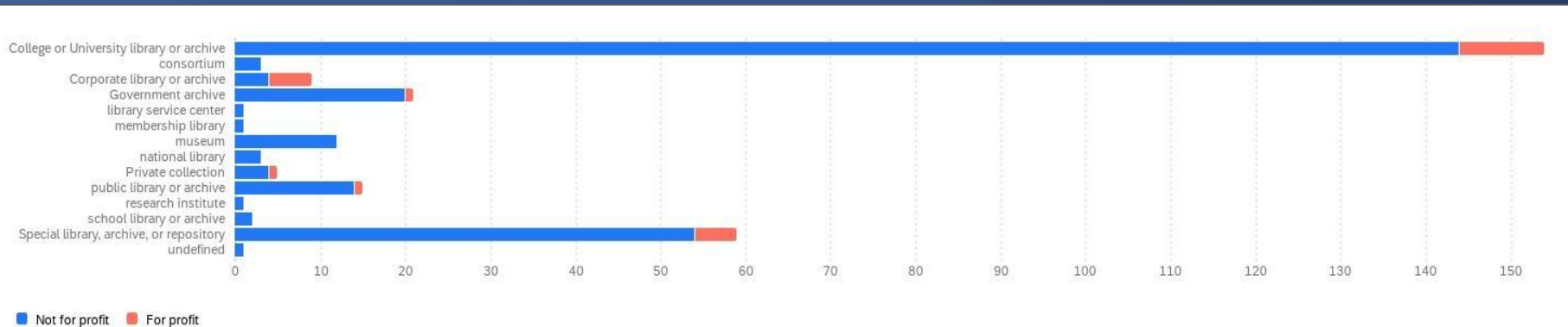
IT



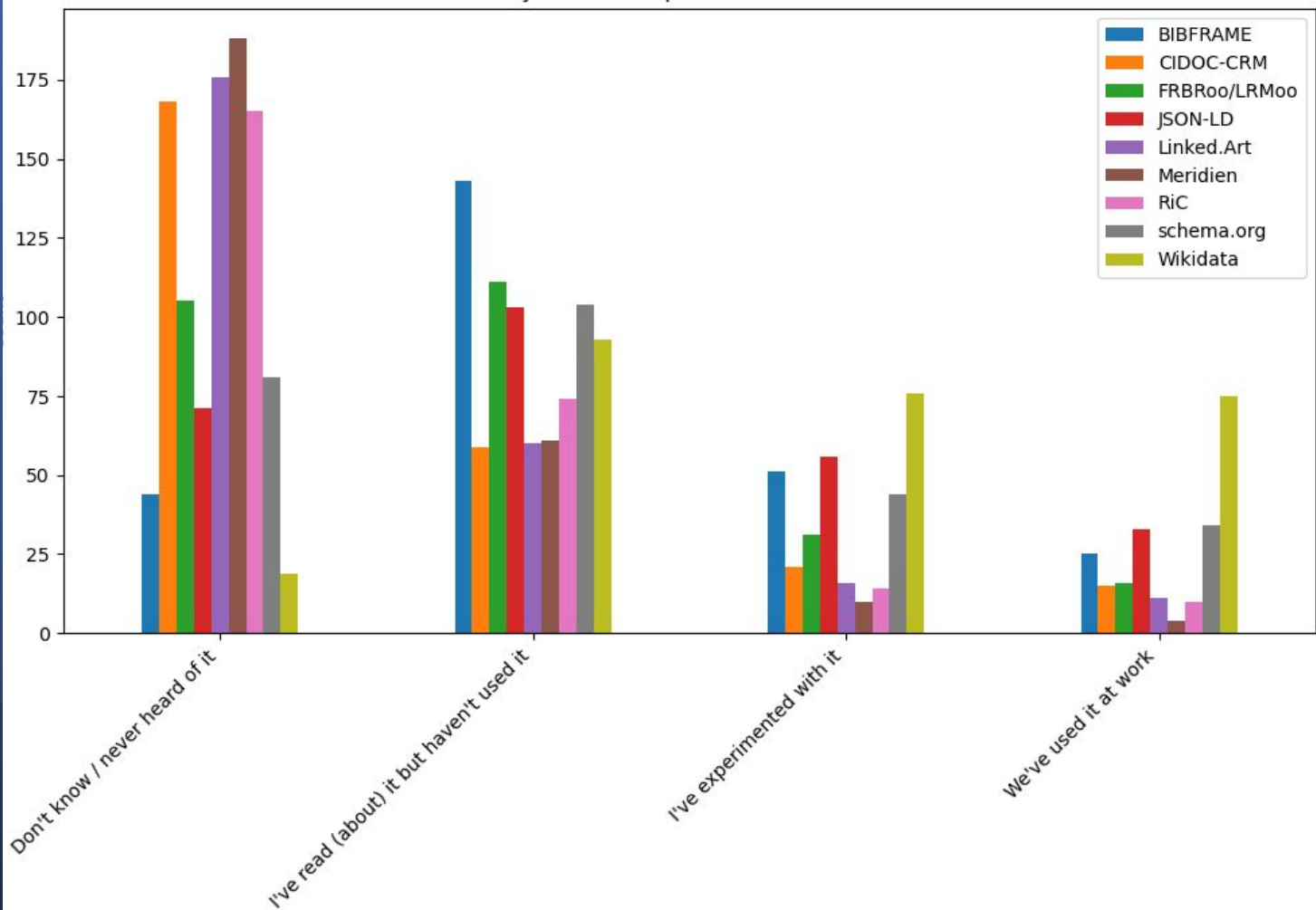
Managers



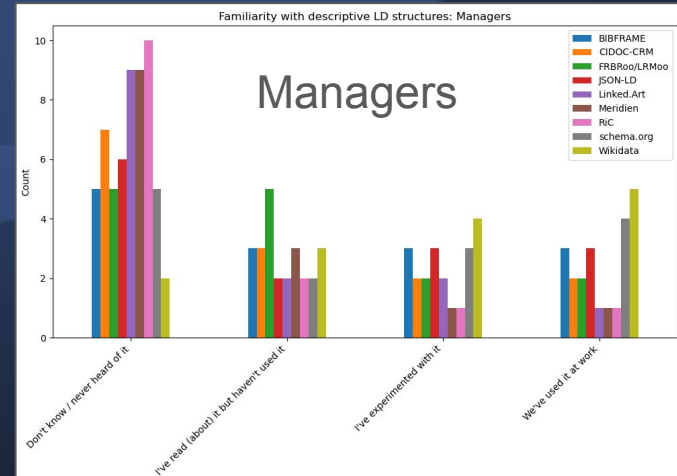
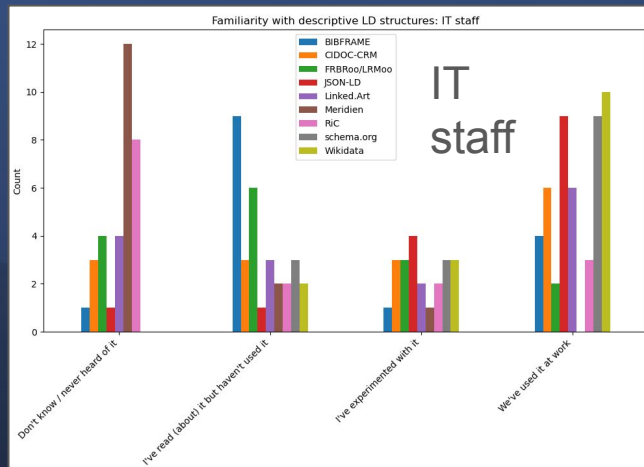
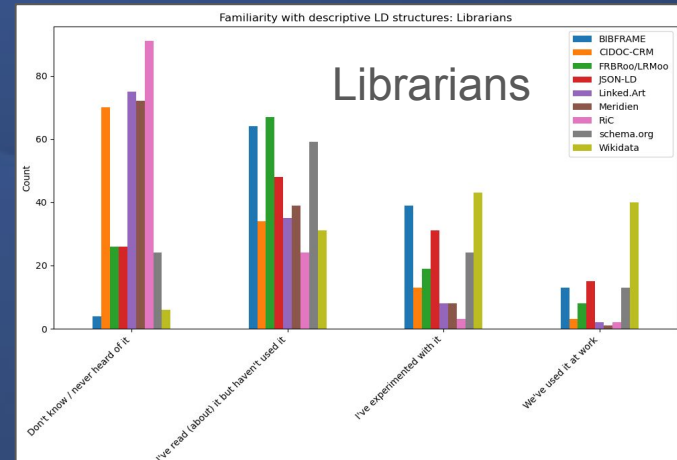
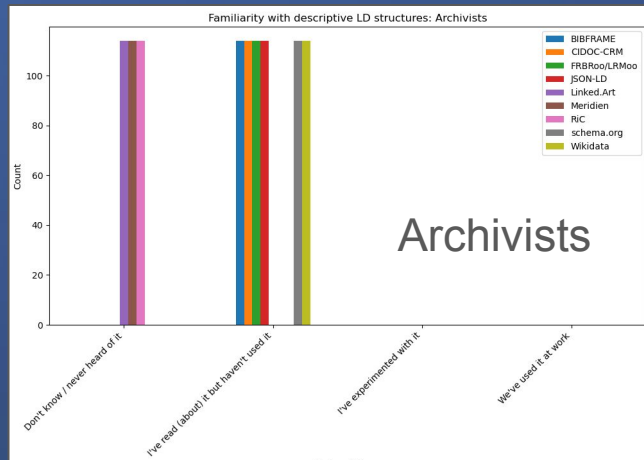
Information Professionals by Type of Organization

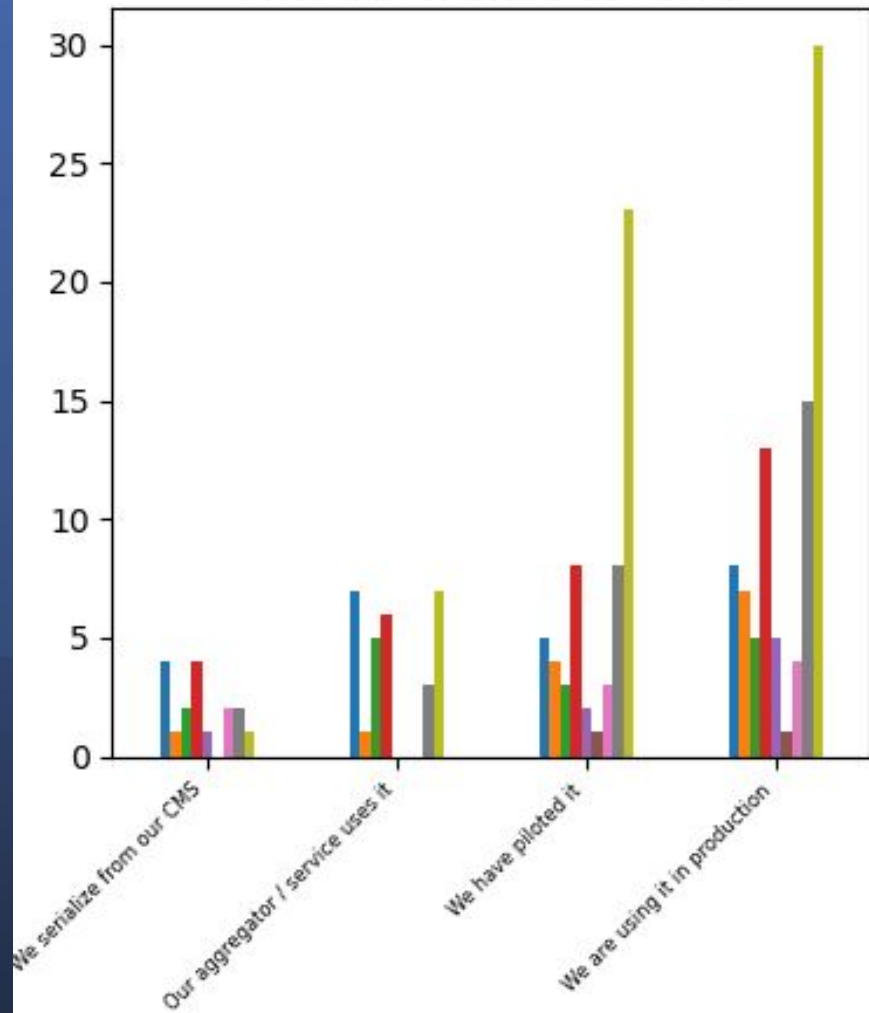


Level of Familiarity With Descriptive LD Technologies



Familiarity by Role

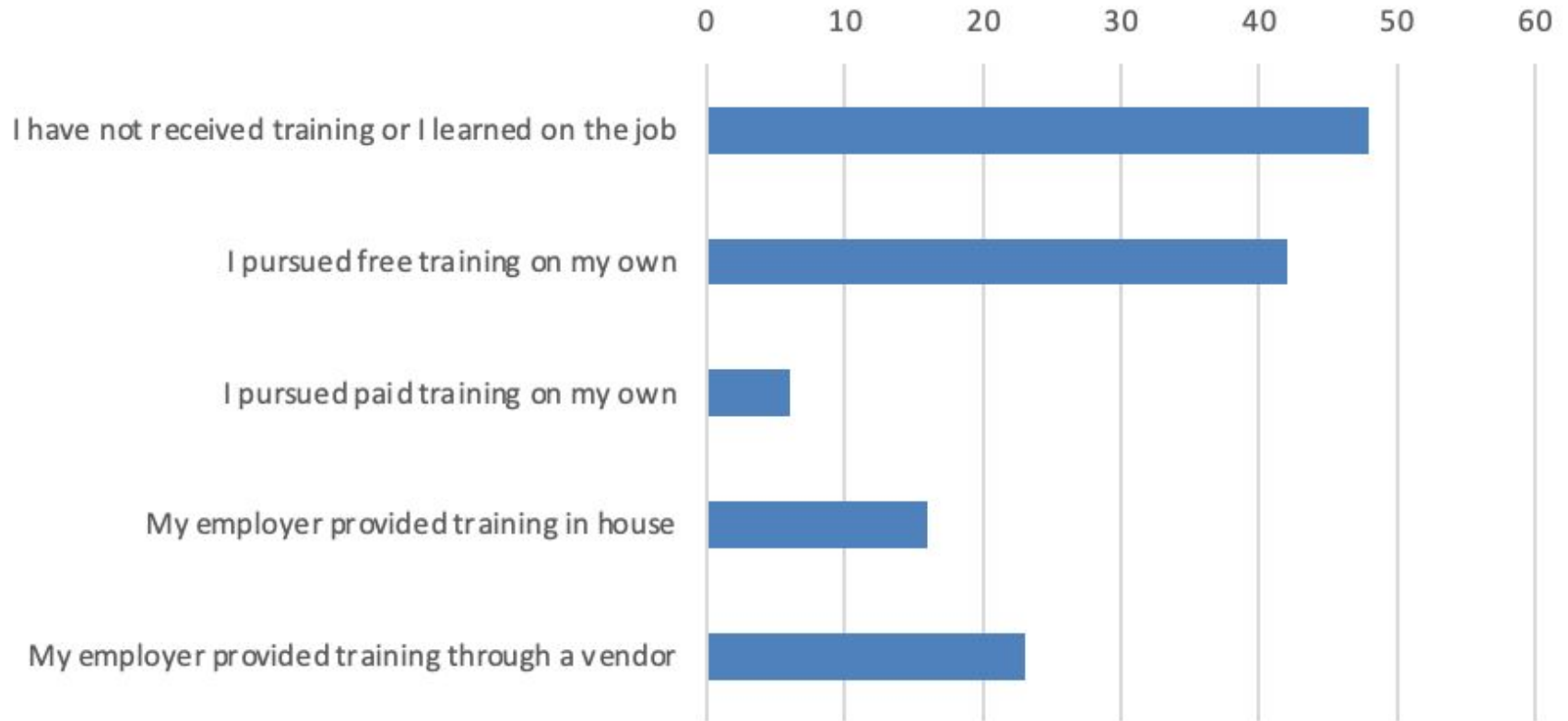




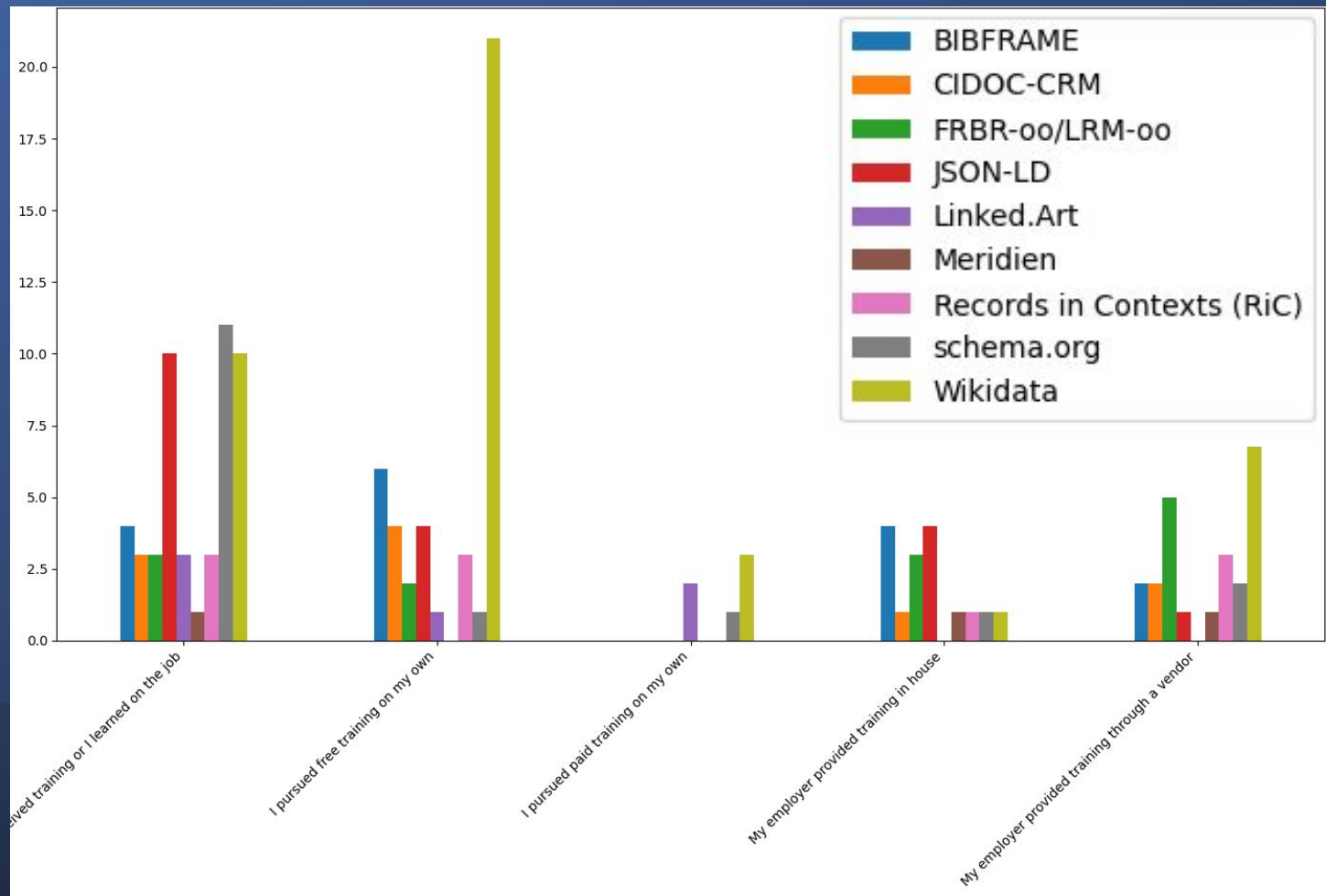
- BIBFRAME
- CIDOC-CRM
- FRBR-oo/LRM-oo
- JSON-LD
- Linked.Art
- Meridien
- Records in Contexts (RiC)
- schema.org
- Wikidata

Levels of Implementation

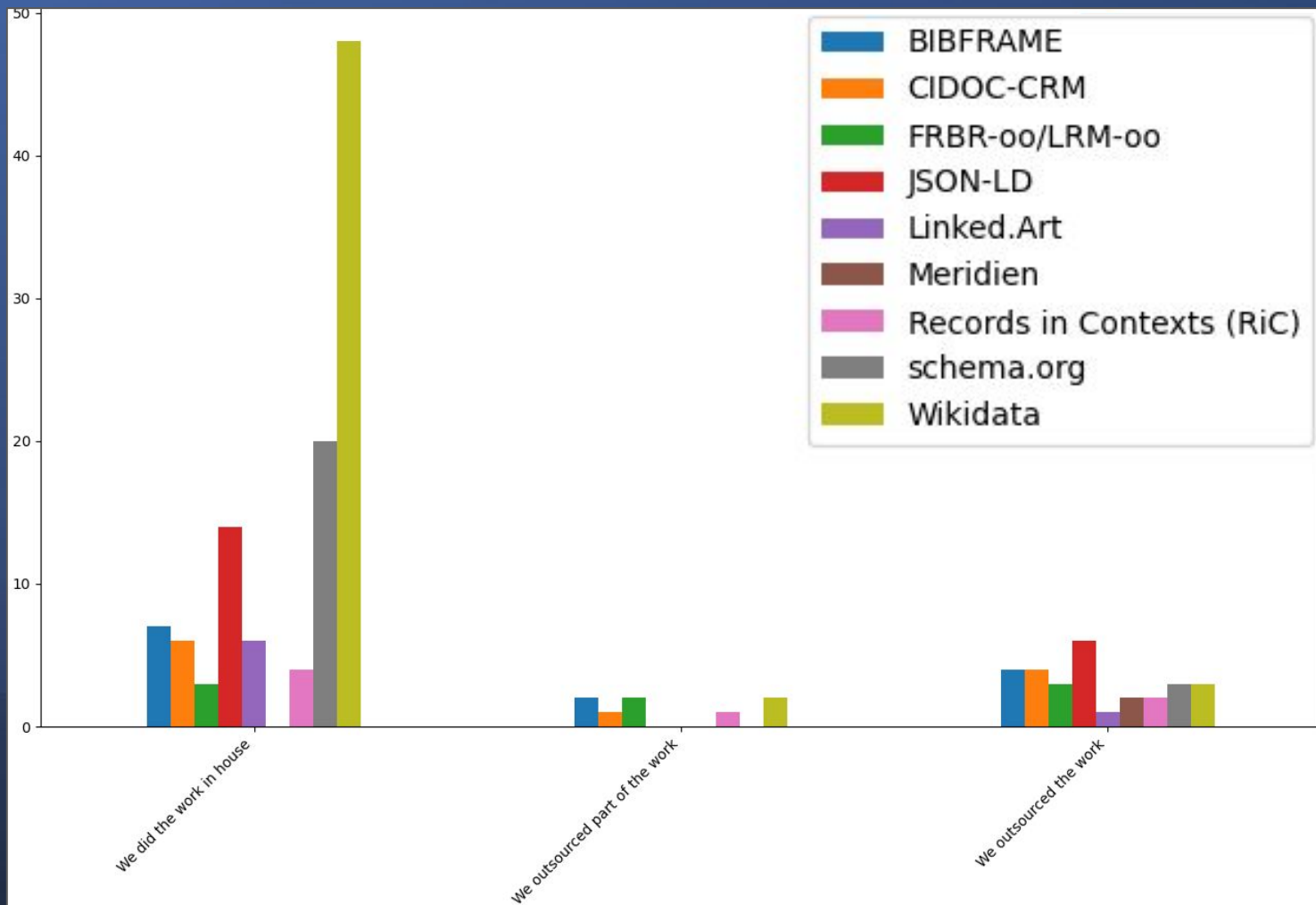
Training



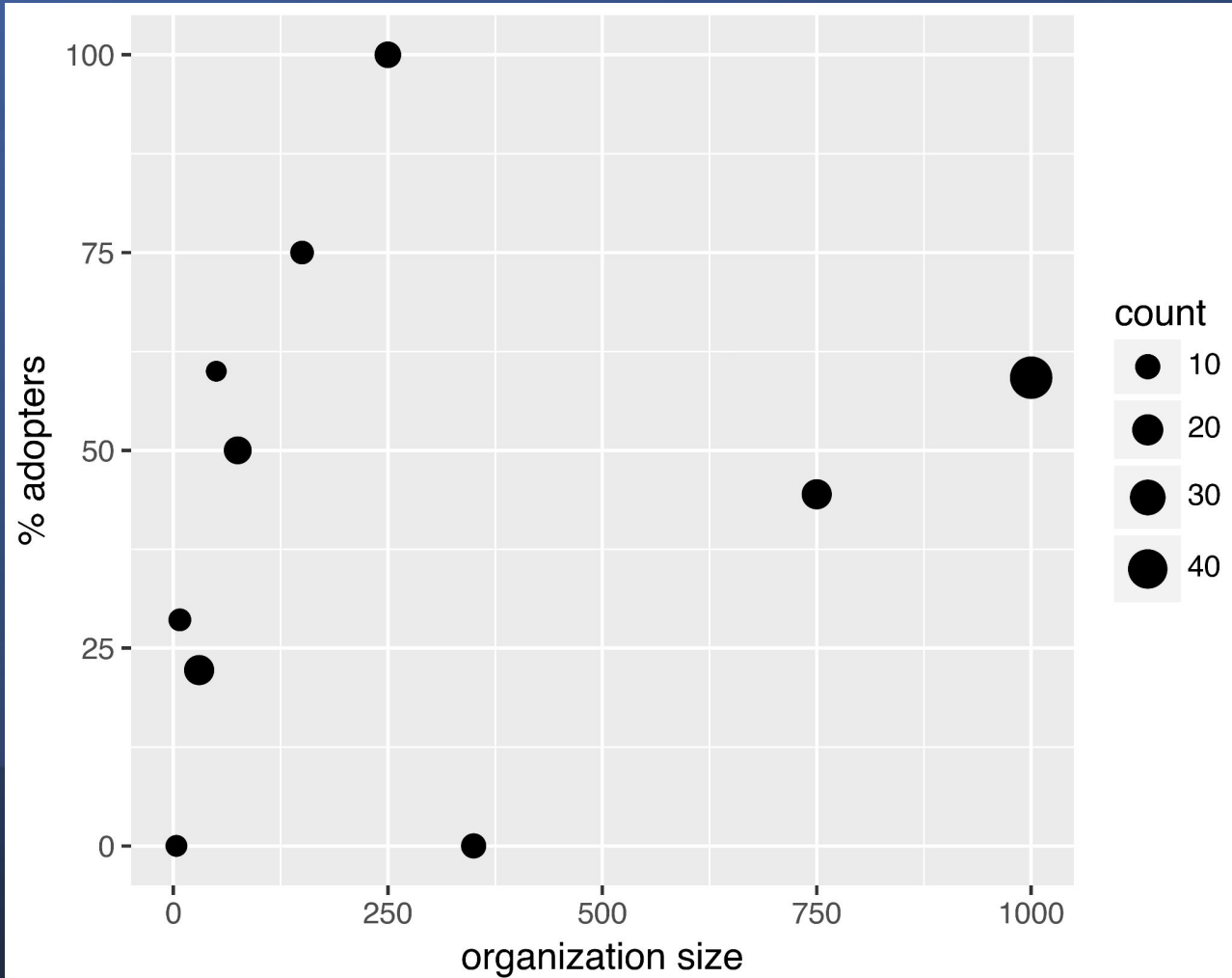
Training



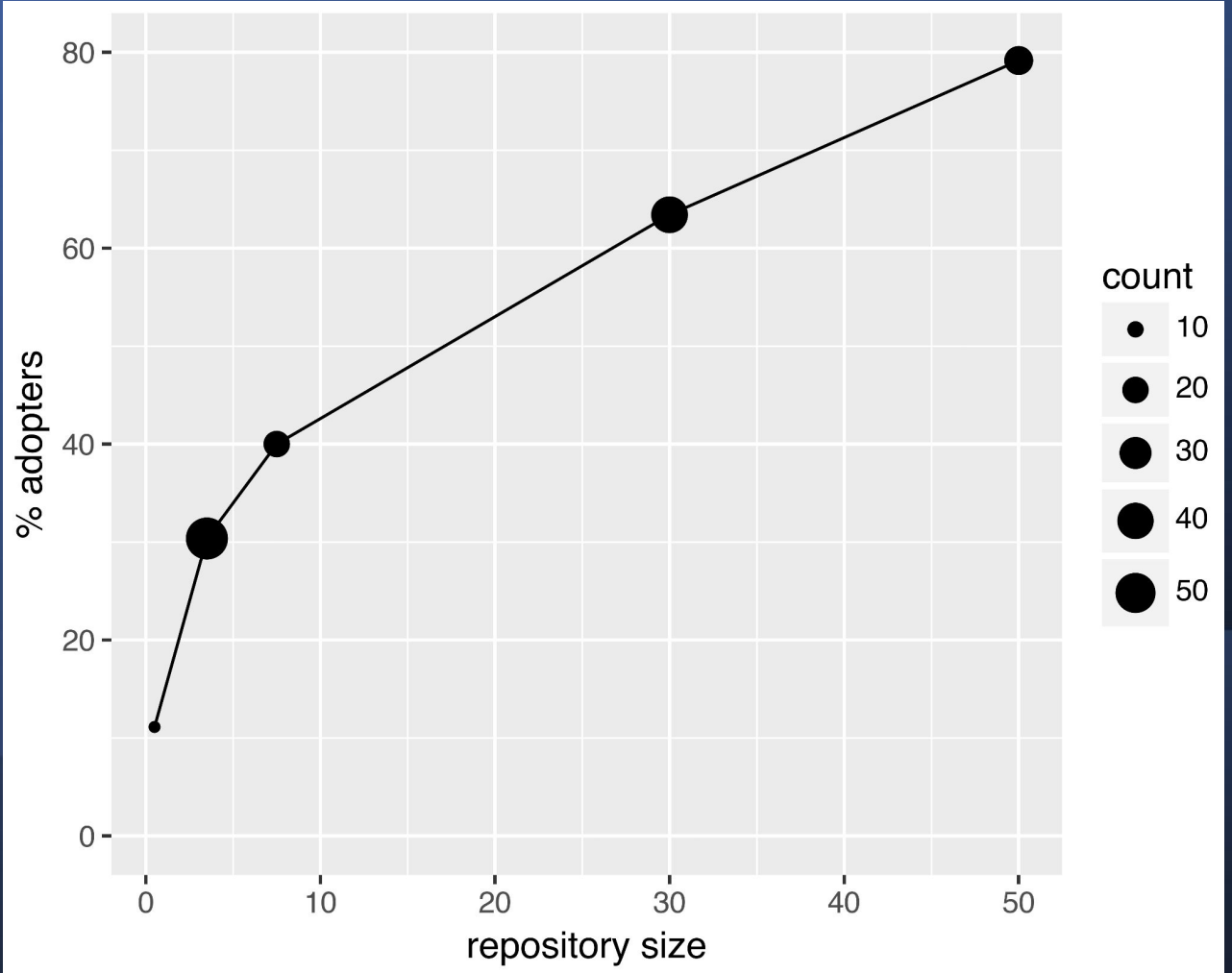
Who Did the Work?



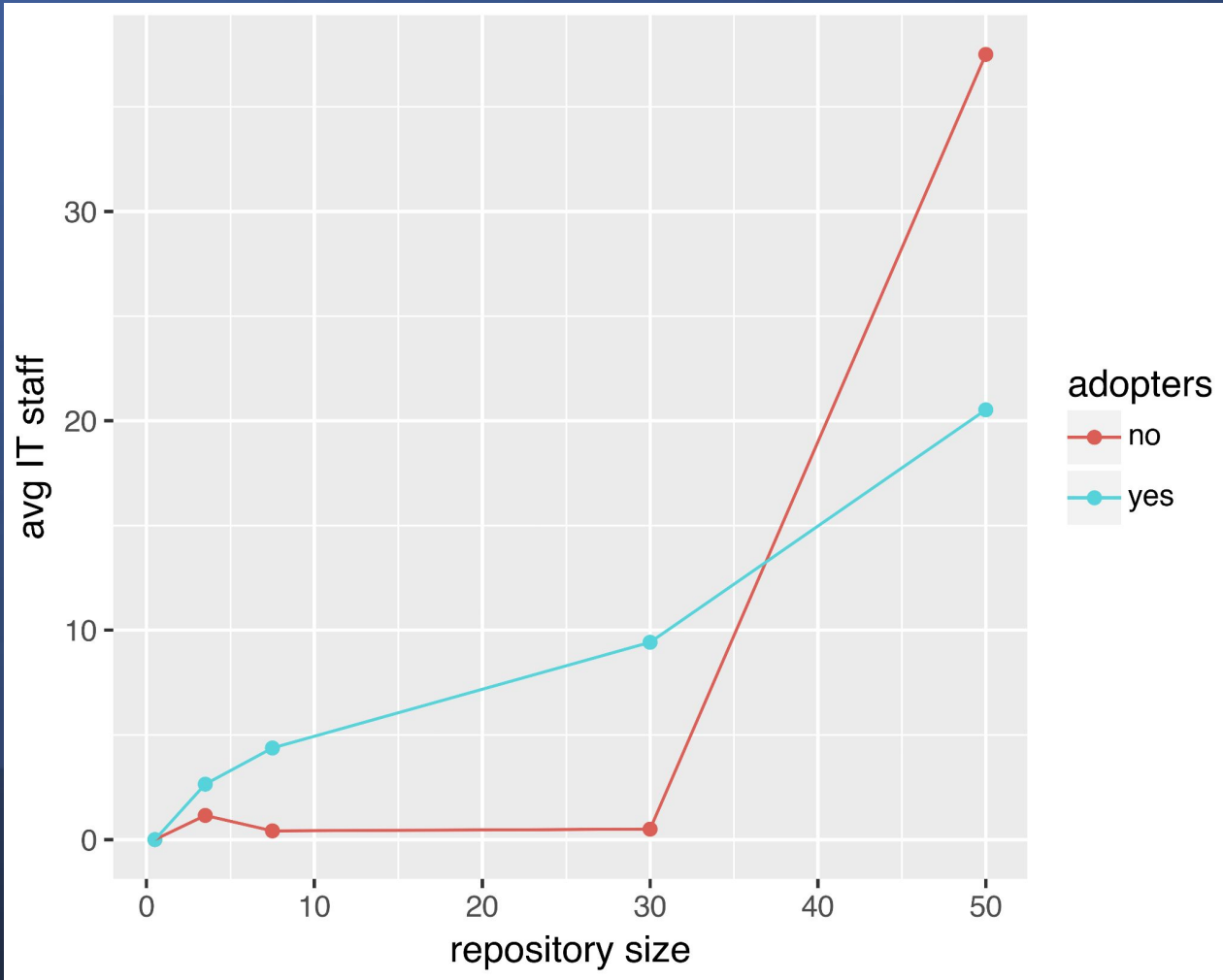
Adopters: Organization Size



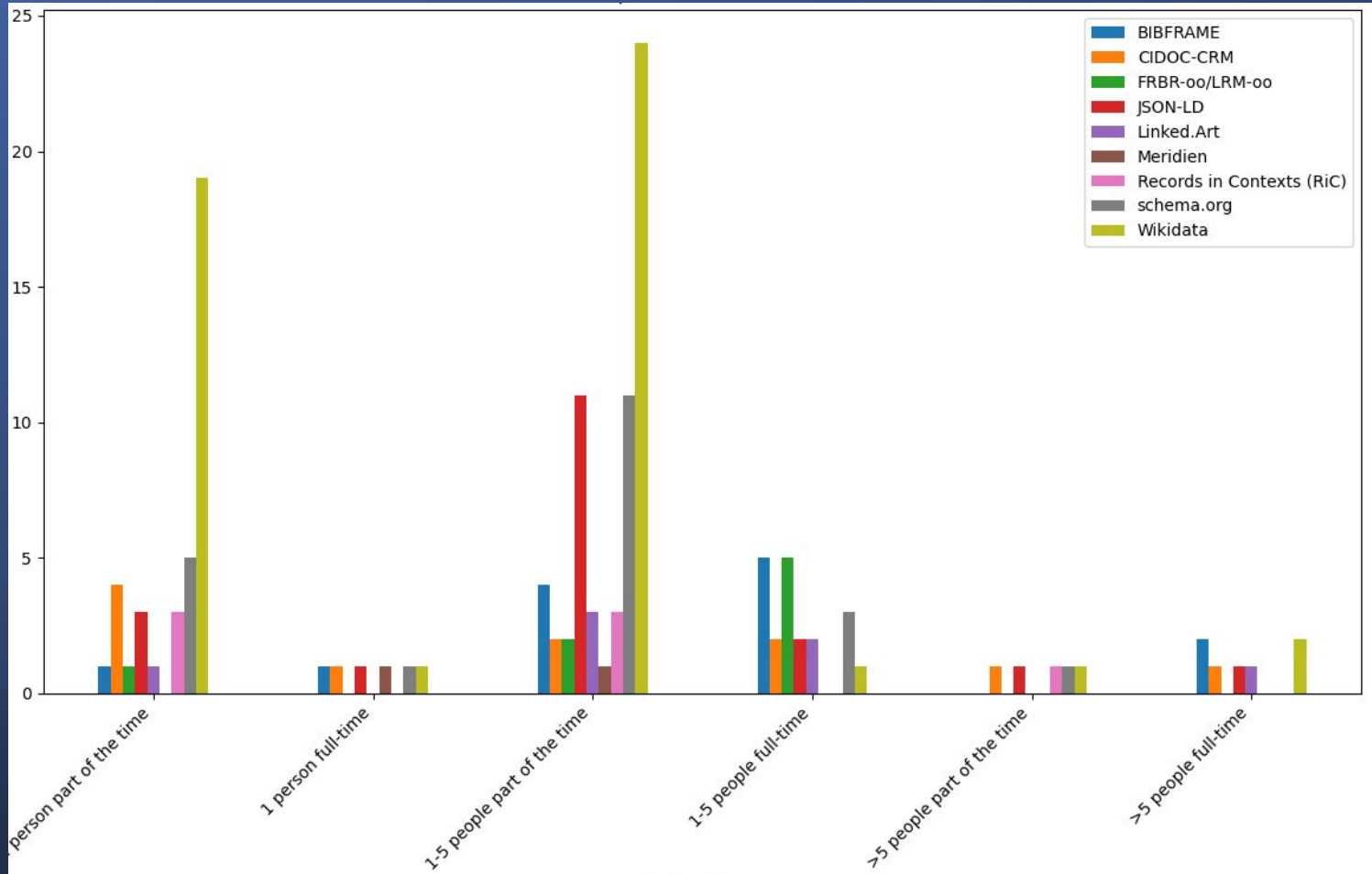
Adopters: Repository Size



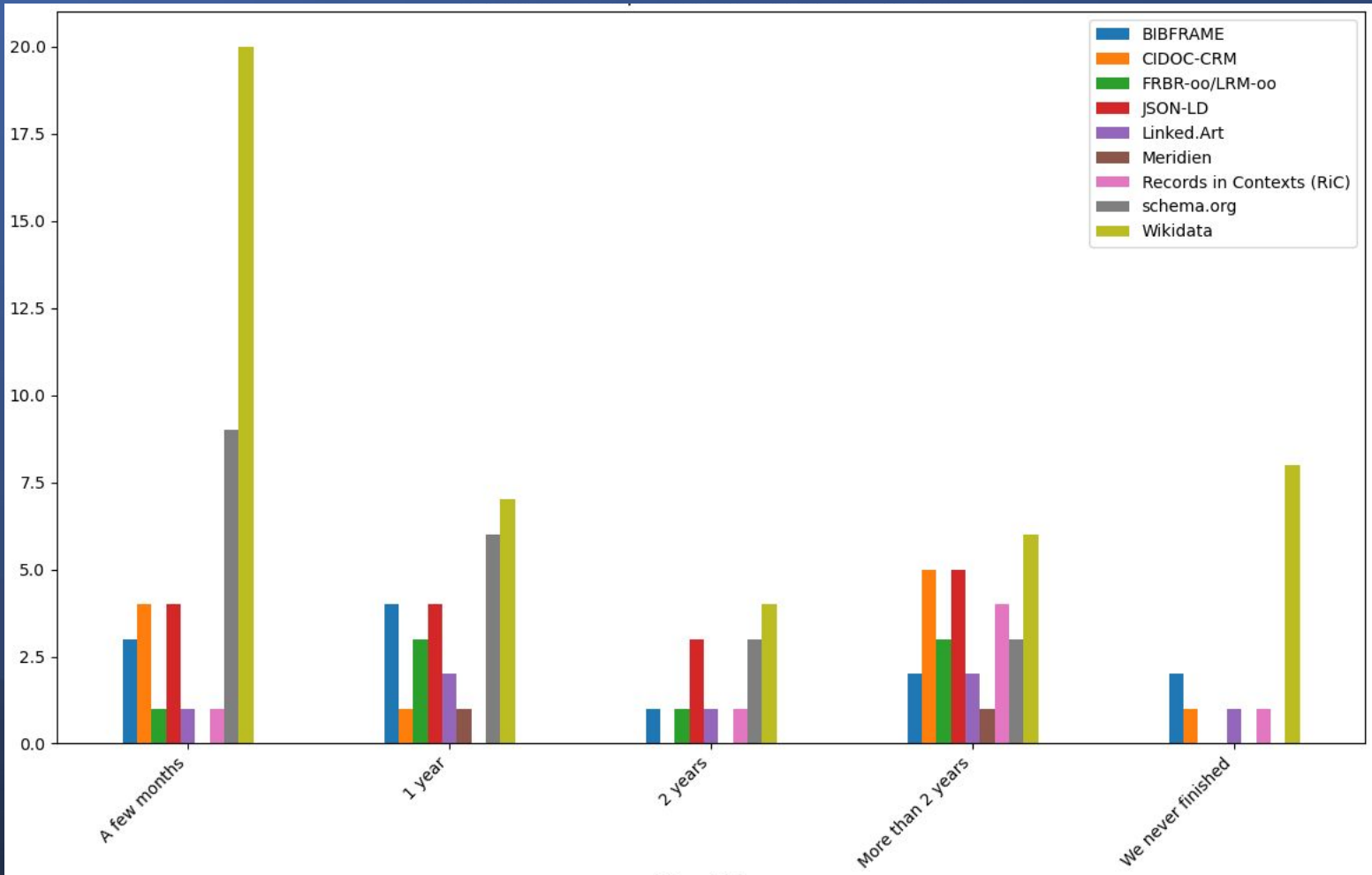
Average IT Support by Repository Size



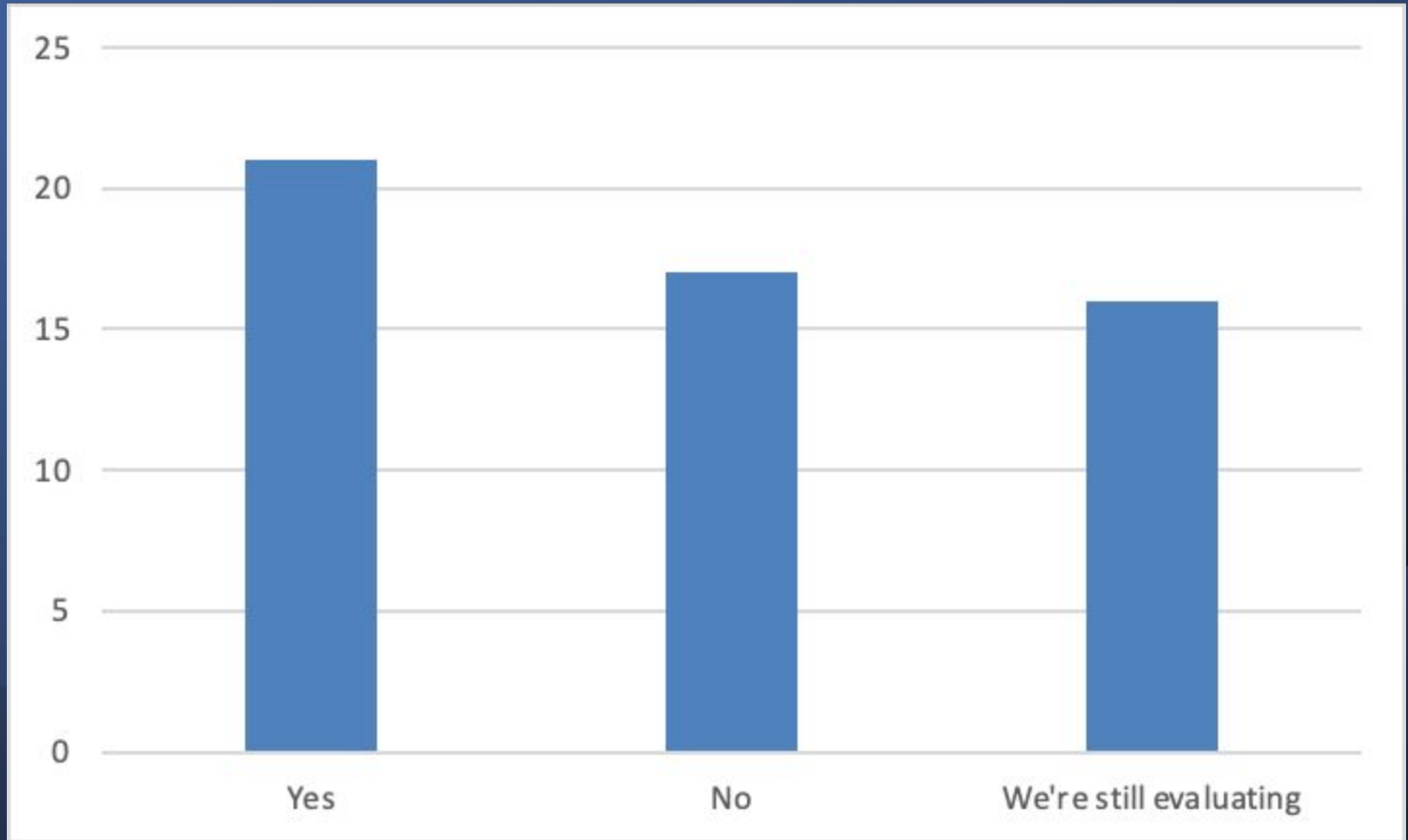
How Many People?



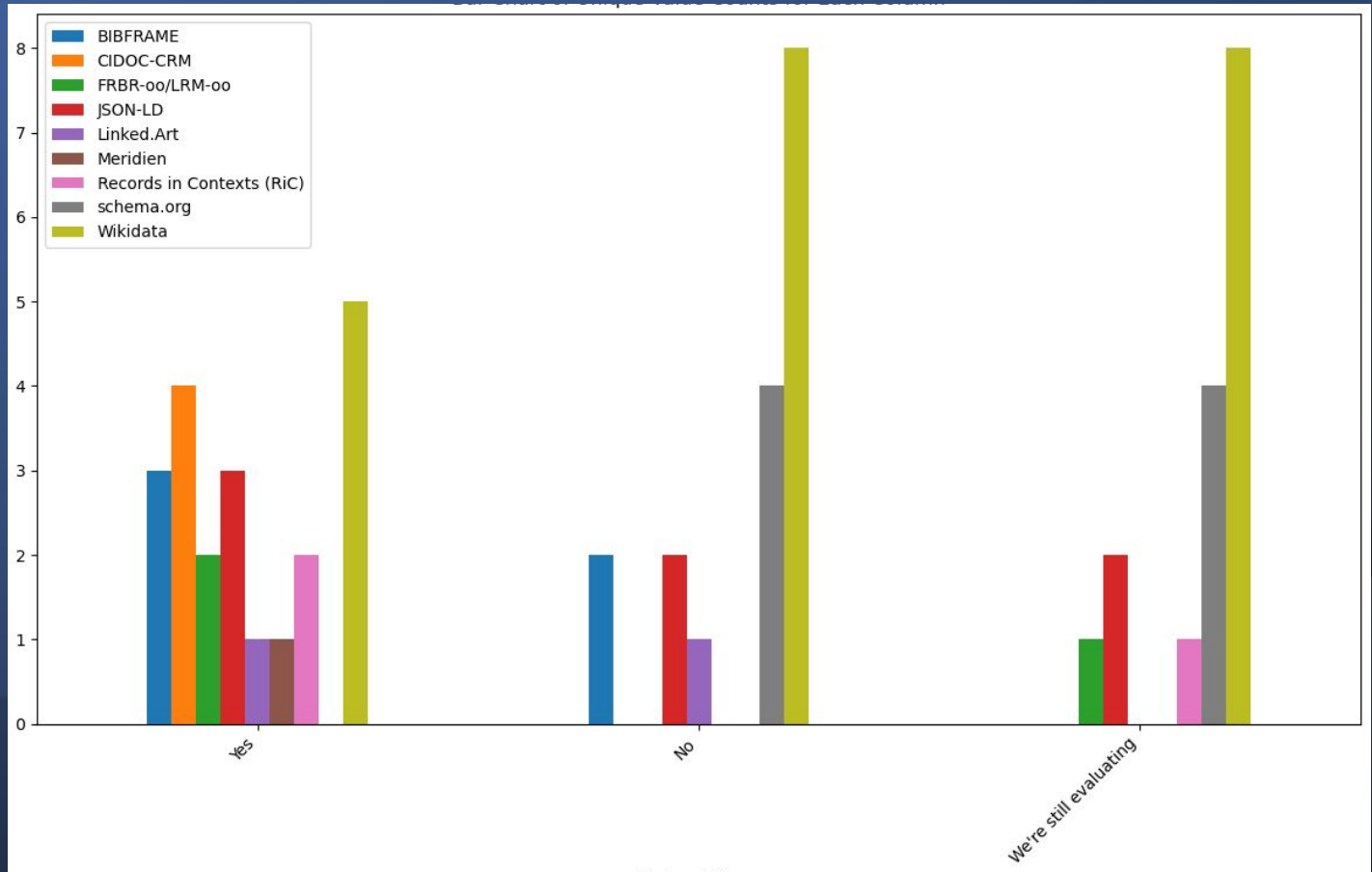
How Long Did It Take?



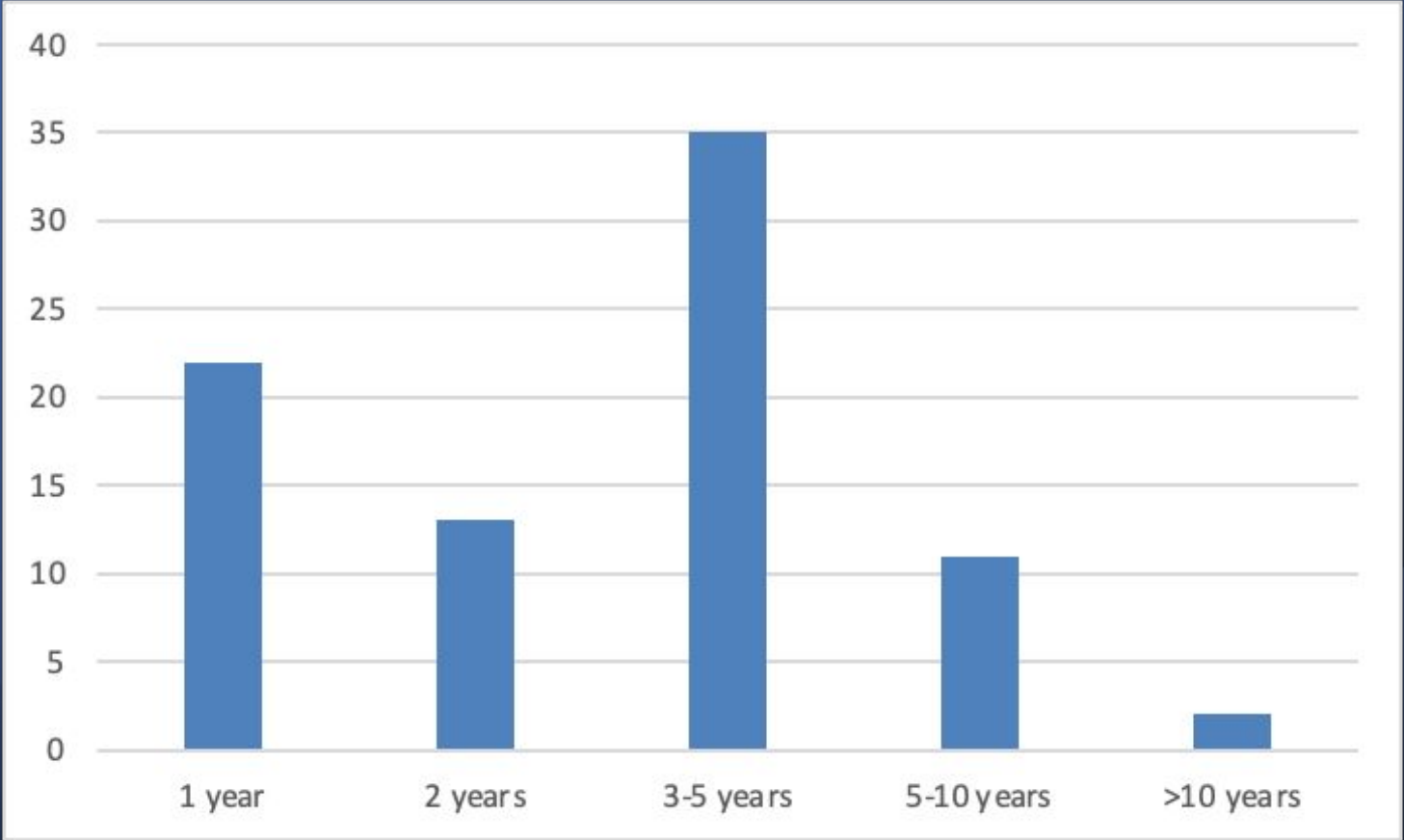
Pilots Moving to Production



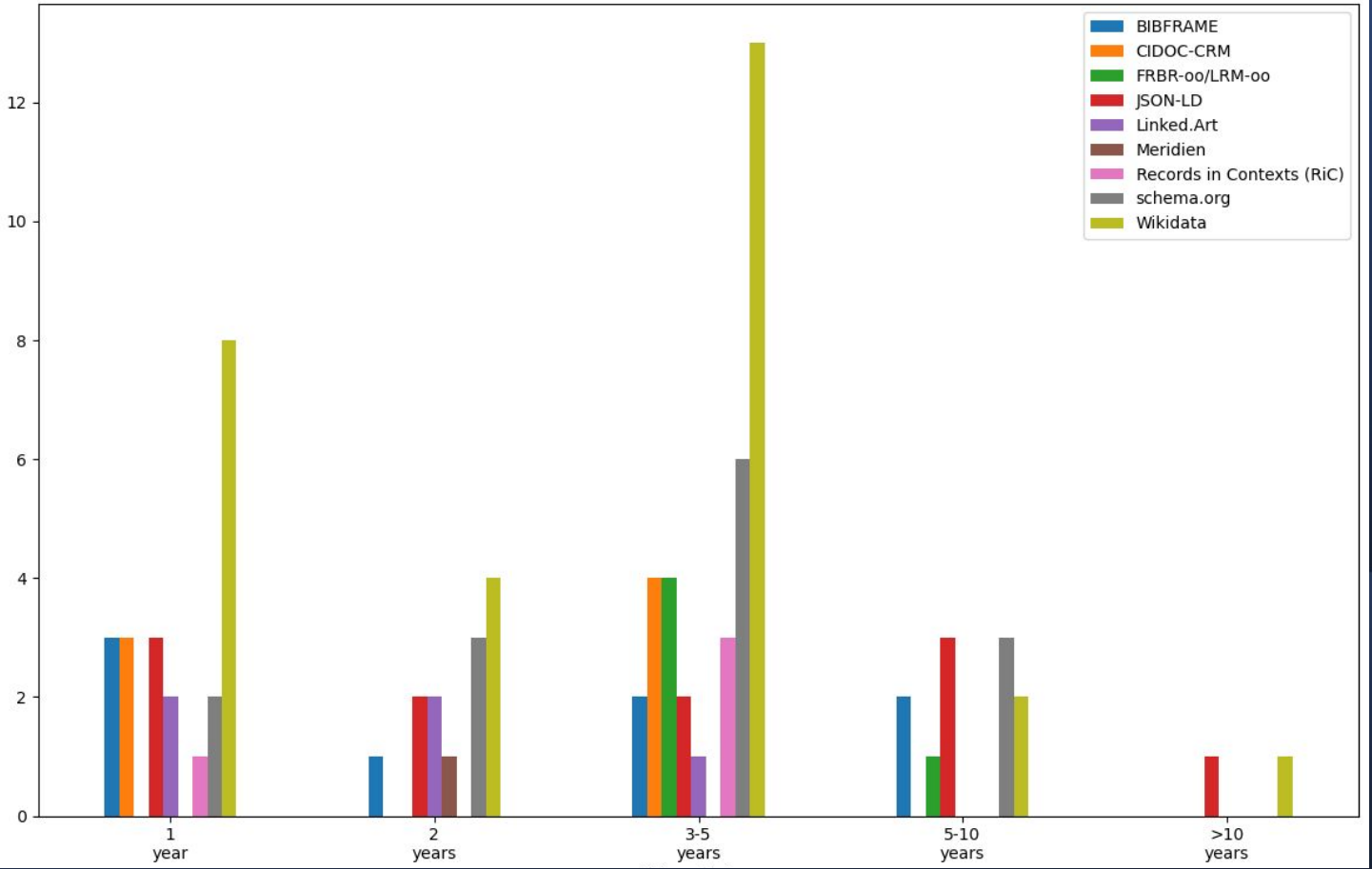
Pilots Moving to Production



Production Sites Uptime



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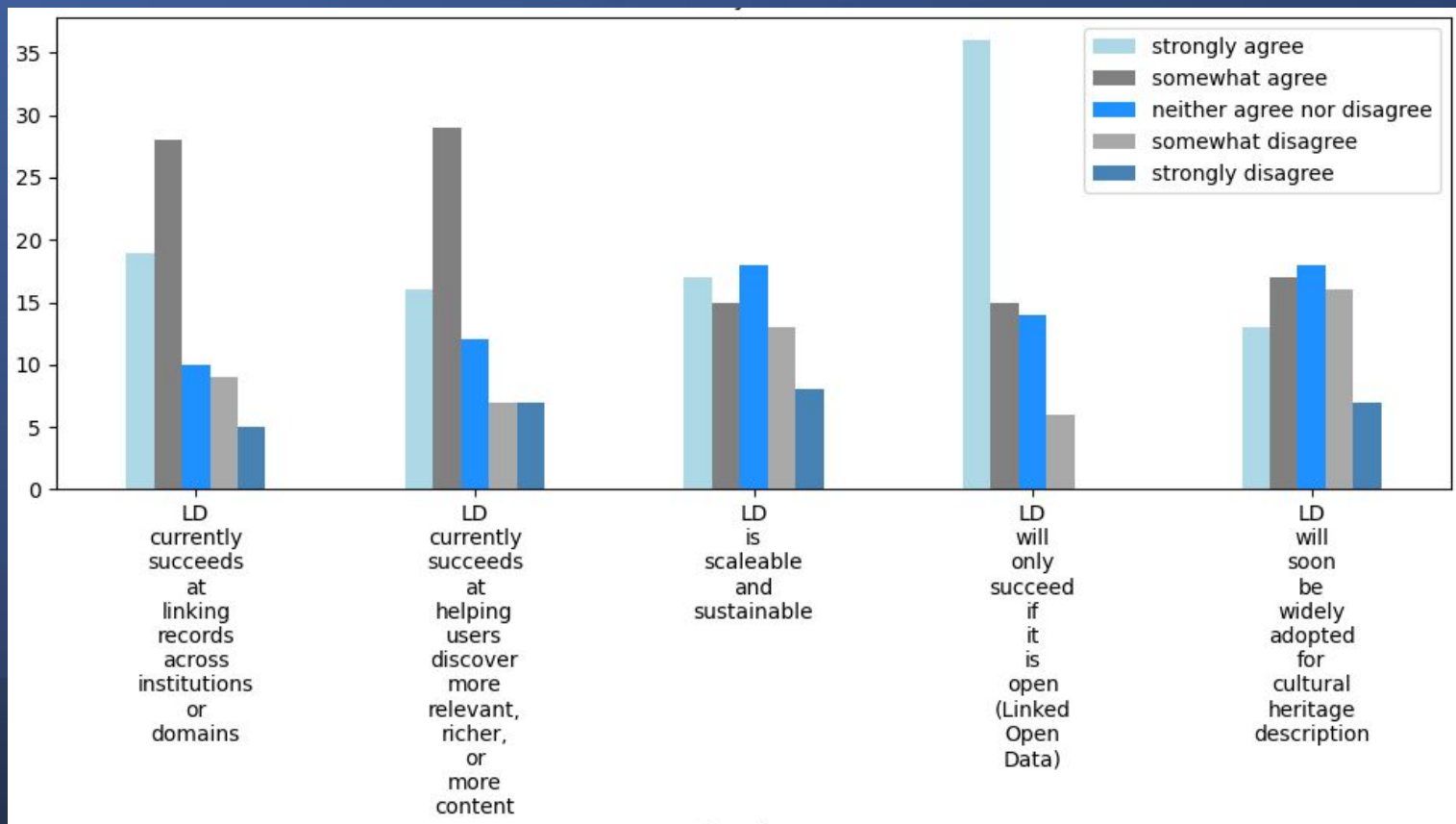
Pilots: Barriers to Implementation

- Available data models don't support service goals
- It's expensive / offers unsatisfactory return on investment
- Requires culture of cross-collaboration

Production Sites: Pain Points

- Dollar cost
- Human barriers
 - steep learning curve
 - managing change
 - lack of tools
- Technical barriers
 - network infrastructure
 - scalability
- Data barriers
 - state of current data
 - incompatible ontologies
 - labor cost of data modeling

How Do We Feel About the Future of LD?



How Do We Feel About the Future of LD?

Survey Prompt	count	percent
LD requires too much staff training or resources	156	62%
Changing systems and practices is too expensive	147	59%
Repositories are waiting for plug-and-play software options	114	45%
Managers don't see the added benefit of LD	97	39%
IT dept.s are wary of the computational complexities of LD	68	27%
Existing ontologies don't work for most repositories' needs	54	22%
LD is made obsolete by AI	11	4%
Other	58	23%

Takeaways

- Ongoing reservations about the value proposition of LD
 - Mitigated by “on-” *and* “off-ramps”: 1. Open source software. 2. Training and sandbox. 3. Gentle learning curve. 4. Obsolescence planning.
- Sustainable, useable LD is built on collaborations
 - Ensure data that’s as complex as necessary and as simple as possible
 - Ensure planning for maintenance and avoiding technical debt
- LD is stagnating in a state of perpetual promise
 - It works locally
 - It has not managed to connect data silos on a large scale

Thank you!

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