Measuring Discovery: The Impact of Discovery Systems on Journal Usage

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A publisher told us . . .

…our customers insist that usage of our content decreased after implementation of discovery service "X".

Librarians speculate . . .

...of course discovery vendors direct their users to their own aggregated content.

Goals of our research

- Determine *whether* discovery services impact usage
- Help librarians and publishers *understand* how their *choices* impact use
- Help librarians, publishers, and vendors *improve the discovery experience* for end users

Goals for Discovery Services

- ***Will vary from library to library***
  - Success depends on that context
- Increasing use
- Simplifying discovery

    ***decreasing* use!** (perhaps)

An assumption

- At any given institution, given a relatively stable user base, the total search effort will remain roughly the same.

Discovery services

- Will take up an increasing amount of a finite time for searching

- Will draw users from other (more or less efficient) search tools

- Will alter the overall productivity of searches (users will find more or less)

- Will alter the overall efficiency of users (users will access more or less full-text)

Study Phases

1. Measuring usage of *publisher-hosted* journal content

   – Comparing usage in 12 months before / 12 months after discovery service implementation

2. Measuring usage of *aggregator-hosted* journal content

   – From the same publishers in phase 1

   – Across the aggregator platform as a whole

# PHASE ONE: PUBLISHER-HOSTED JOURNALS

Did Publisher-Hosted Journal Usage Change?
(and if so, to what extent?)

- 4 discovery services
  - 6 libraries in each group
- A control group
  - 9 libraries that did not implement a discovery service in this time period
- 6 major journal publishers
  - 9,206 Journals in the study
  - 163,545 Observations (Library + Journal)

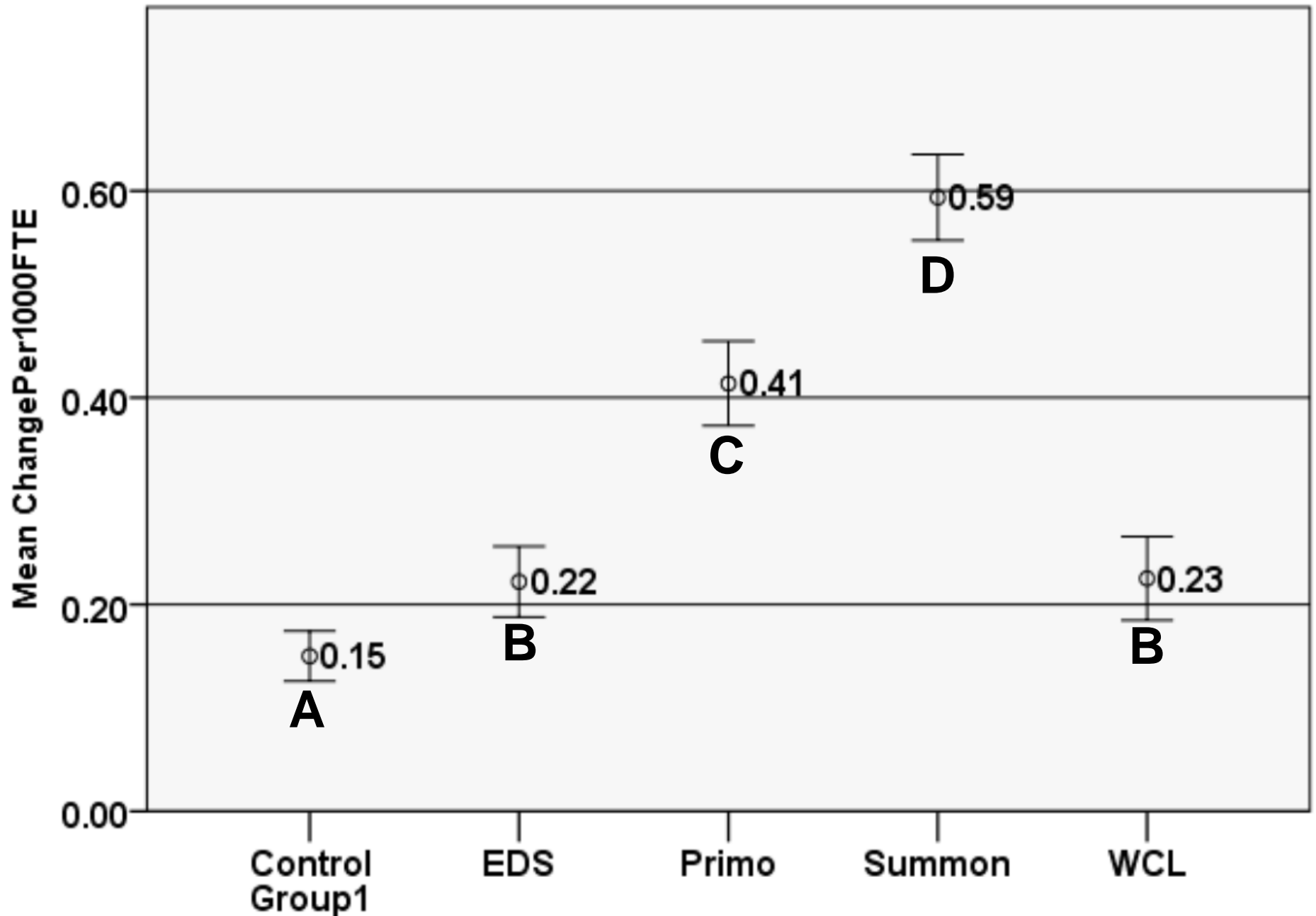Average Publisher-Hosted Journal Usage by Library
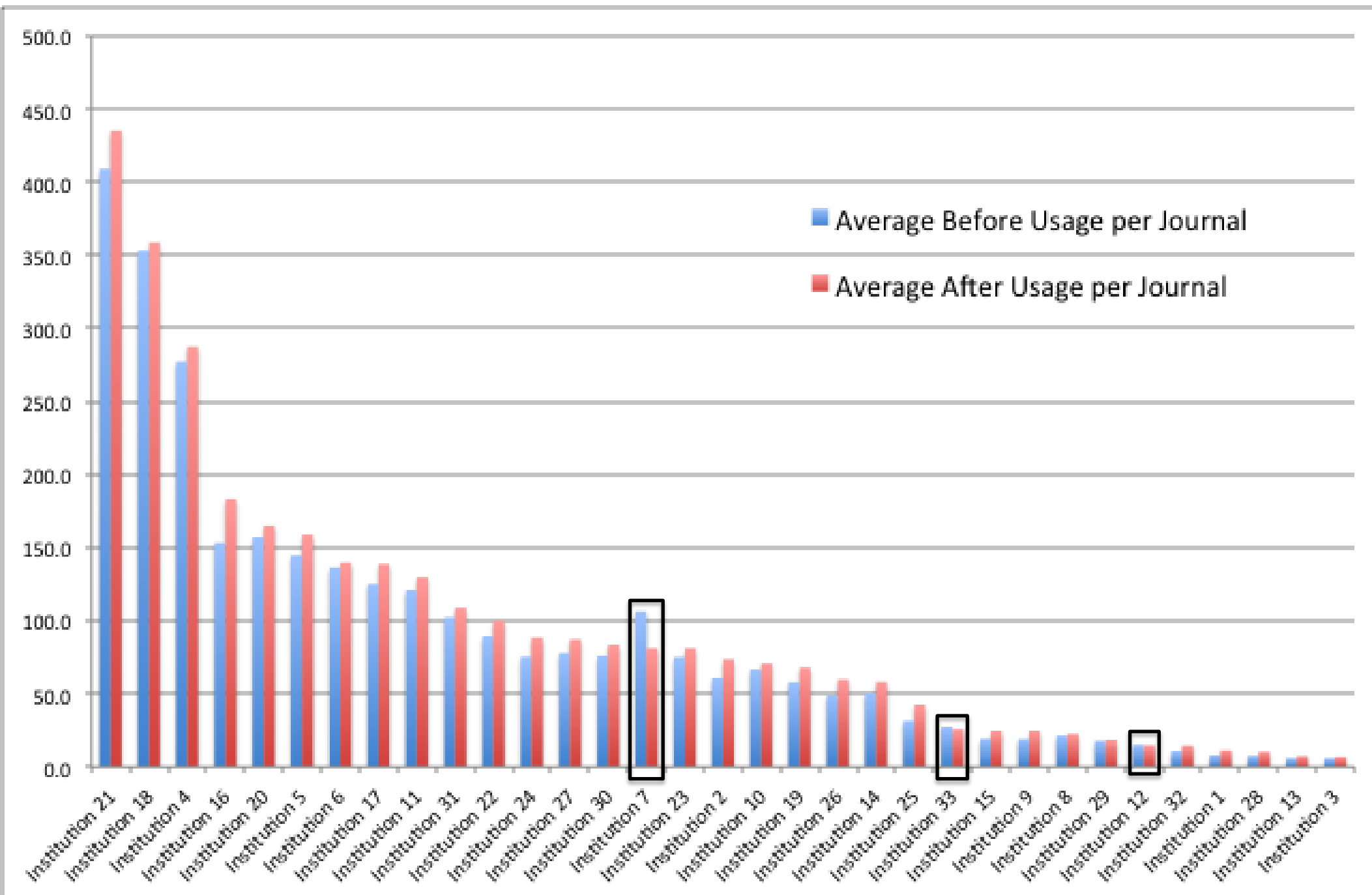
Usage Change Per 1,000 FTE

- Allows us to compare impact of discovery implementation at institutions of varying size
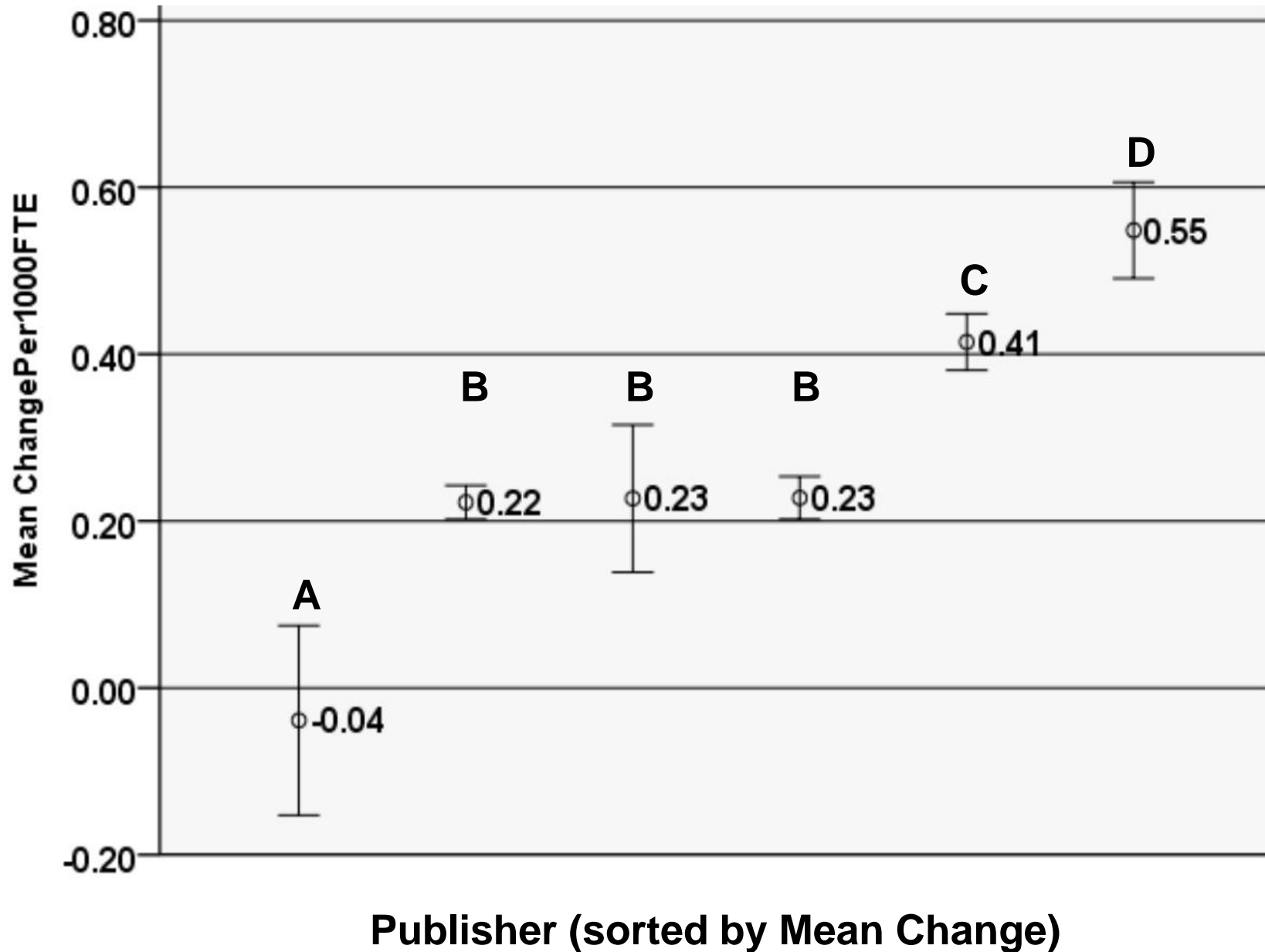
How does usage change differ across discovery services?

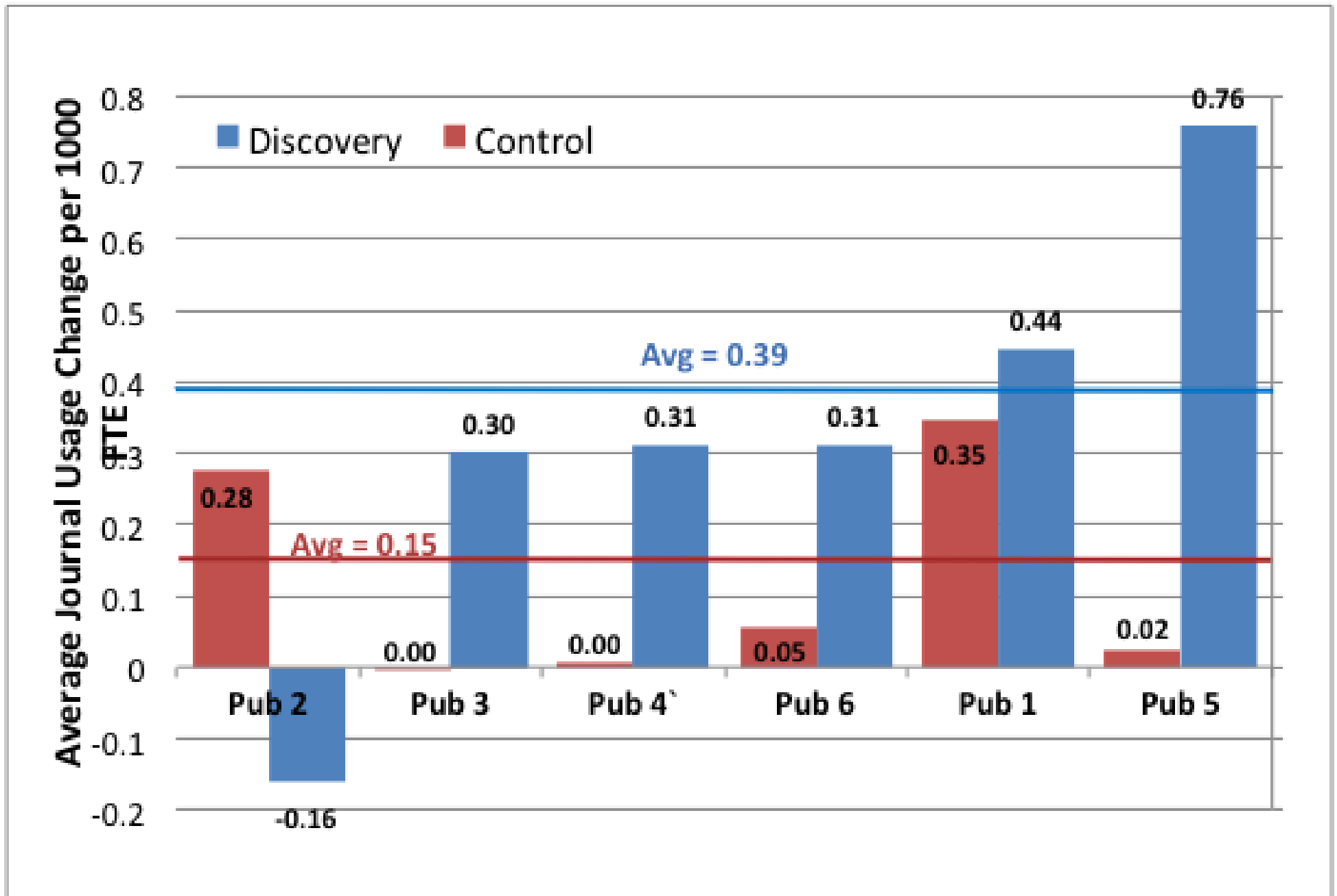Letters indicate statistically significant differences (Tukey multiple comparisons, p < .05)

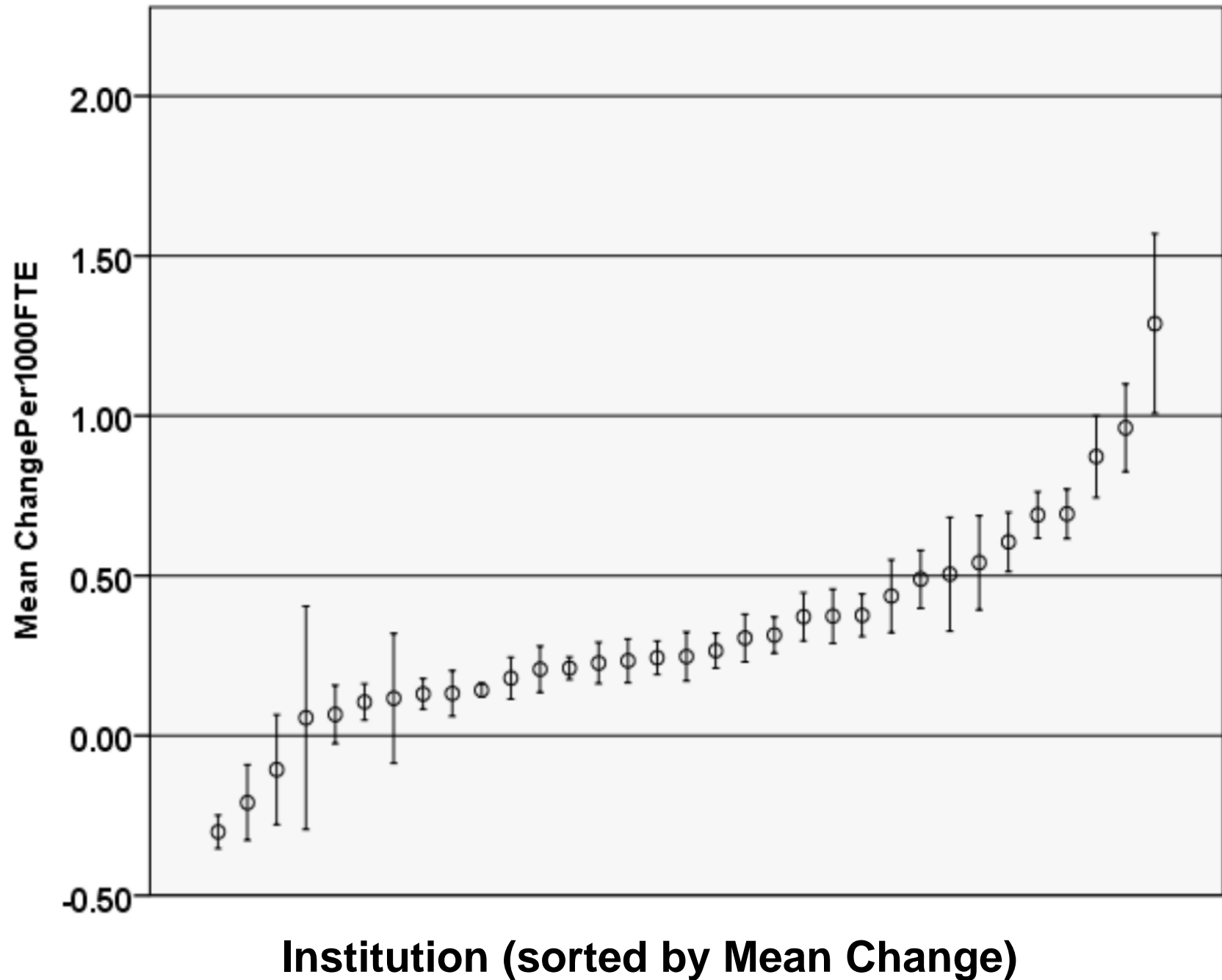# How does usage change differ across publishers?

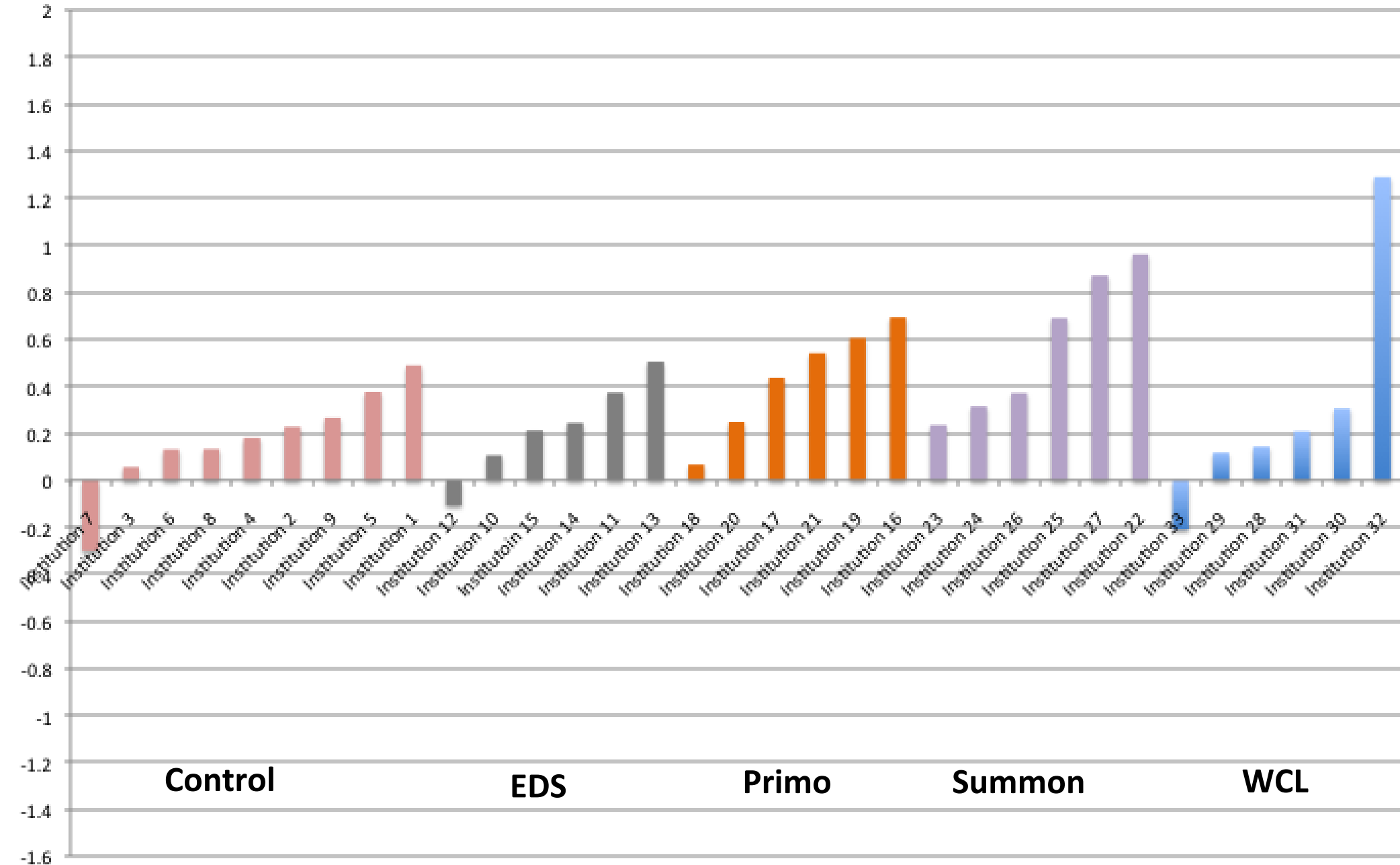Letters indicate statistically significant differences (Tukey multiple comparisons, p < .01)

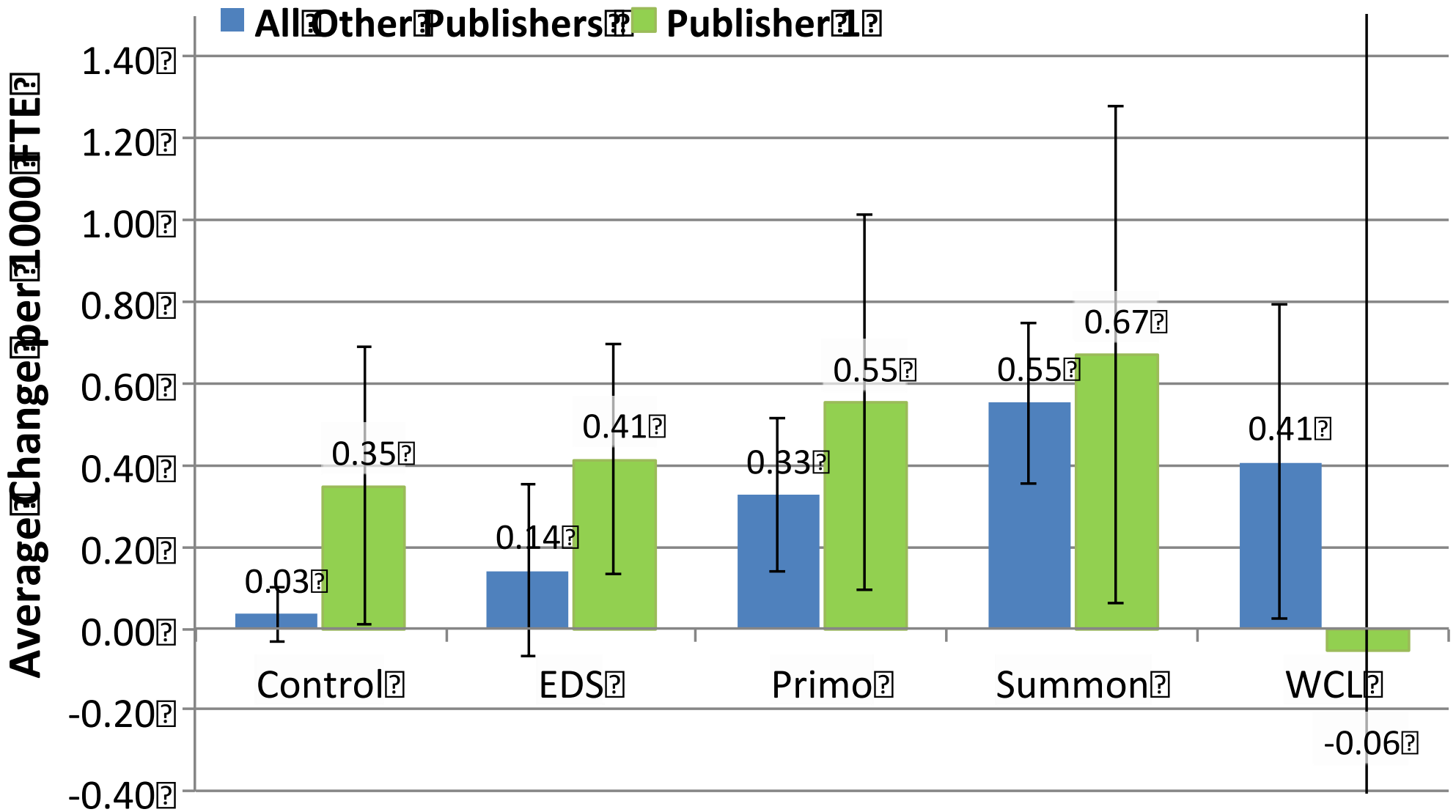# How does usage change differ across publishers?
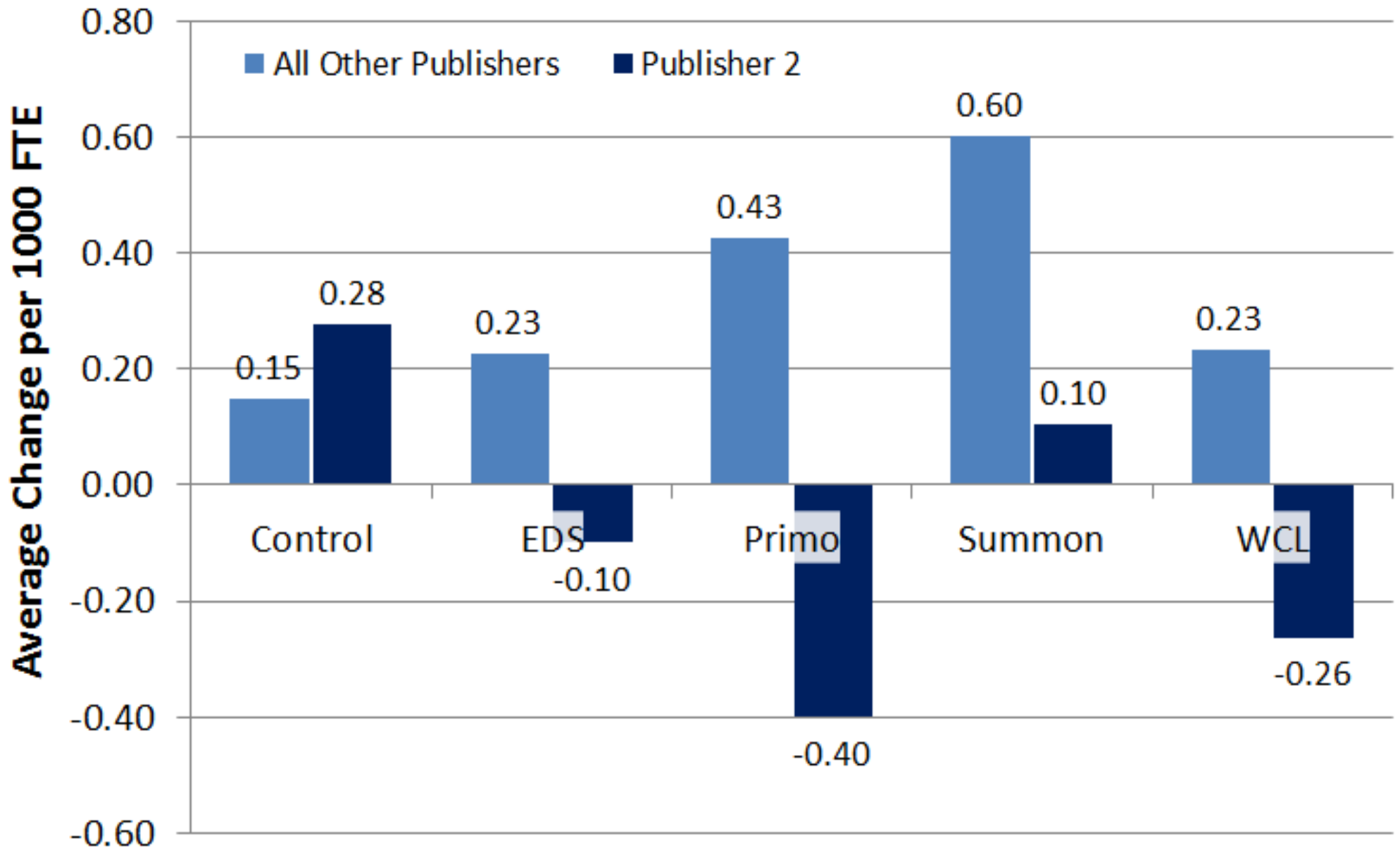
Does usage change vary across libraries?

Usage Change Per Institution: All Journals

Control   EDS   Primo   Summon   WCL

Publisher 1 by Discovery System

Publisher 2 by Discovery System

Summary of Results: Publisher-Hosted Journals

- **Discovery Service**
  - ✓ Every service increased usage compared to control
  - ✓ Some services increased usage more than others

- **Library**
  - ✓ The degree of usage change differed among libraries using the same discovery service

- **Publisher**
  - ✓ Usage change differed across publishers:
    - 1 of 6 publishers saw a significant decrease
    - 2 of 6 publishers saw significant increases
    - 3 of 6 publishers saw no detectable change

Conclusions

1. Each **discovery system caused an increase in usage** of publisher-hosted journal articles

2. Usage **change differed among libraries** using the same discovery system

3. Discovery systems had **stronger effects on some publishers' content** than on others

[**These results** provide a snapshot of a very small portion of the content that discovery services are intended to expose, and **should not be used to assess discovery service quality**]

Conclusions to be avoided…

Our research does *not* indicate that:

a) **one service increases usage more than another for every library or publisher**

> ➢ effects vary across libraries and publishers

b) **one service is better than another**

> ➢ libraries or their users may benefit from increased usage of other content instead

> ➢ higher usage may indicate lower efficiency

Next Steps

1. Repeat phase one (publisher-hosted journals) with a new group of libraries
   - More recent discovery implementation
2. Add aggregator-hosted journals
3. Add e-books
4. Add investigation of configuration decisions

Long Term Goals

1. Determine **whether** discovery services impact usage of various content types

    - Journal articles first, but more to come

2. Reveal key factors that explain **why** some of the differences exist

3. Help librarians and publishers understand how their choices impact use

4. Help librarians, publishers, and vendors improve the discovery experience for end users

More Information

- http://insights.uksg.org/articles/10.1629/2048-7754.153/

- http://www.slideshare.net/MichaelLevineClark/discovery-study-detailed-results-2014-december

- http://www.slideshare.net/MichaelLevineClark/

Questions?

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