Persistent Identifiers in Practice

Christian Zimmermann (Federal Reserve Bank of St. Louis)

Berlin 2012

The views expressed are those of individual authors and do not necessarily reflect official positions of the Federal Reserve Bank of St. Louis, the Federal Reserve System, or the Board of Governors.

Why me?

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Research Papers in Economics (RePEc)

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- Research Papers in Economics (RePEc)
- Federal Reserve Economic Data (FRED)

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What is RePEc?

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What is RePEc?

Online bibliography for Economics, started in 1997 (1992)

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What is RePEc?

- Online bibliography for Economics, started in 1997 (1992)
- Network of volunteers archivists

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What is RePEc?

- Online bibliography for Economics, started in 1997 (1992)
- Network of volunteers archivists
- Metadata and retrieval protocols

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What is RePEc?

- Online bibliography for Economics, started in 1997 (1992)
- Network of volunteers archivists
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- Paper hosting at publishing institutions

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What is RePEc?

- Online bibliography for Economics, started in 1997 (1992)
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- Paper hosting at publishing institutions
- $\blacktriangleright \implies$ No central cost, everything free

What is RePEc?

- Online bibliography for Economics, started in 1997 (1992)
- Network of volunteers archivists
- Metadata and retrieval protocols
- Paper hosting at publishing institutions
- $\blacktriangleright \implies$ No central cost, everything free
- 1,2 million items from 1500 journals and 3000 preprint series.
 1400 archives

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Organization

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Central list of pointers to metadata archives

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- Central list of pointers to metadata archives
- Metadata archive following strict syntax

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- Central list of pointers to metadata archives
- Metadata archive following strict syntax
- Automatical nightly retrieval of data

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- Central list of pointers to metadata archives
- Metadata archive following strict syntax
- Automatical nightly retrieval of data
- "RePEc services" display metadata

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Sample metadata template

Template-Type: ReDIF-Article 1.0 Author-Name: Andrew Beacon Author-Name: Charlie Doe Author-Email: doe@someuni.edu Author-Workplace-Name: Some Big University Author-Name: Engelbert Falafel Author-Workplace-Name: Some Other University Title: A Guide to Forecasting Agricultural Output by Following Weather Patterns in Neighboring Areas Abstract: In this article, we survey the literature on agricultural output forecasting and suggest some avenues the merit particular attention... Classification-JEL: R00, Z0 Keywords: Forecasting, agricultural economics Journal: Annals of Computational Economics Pages: 1-58 Volume: 3 Issue: 1 Year: 1999 Month: February File-URL: http://www.geekeconomics.com/articles/thefile.pdf File-Format: application/pdf File-URL: http://www.geekeconomics.com/articles/thefile.html File-Format: text/html Handle: RePEc:aaa:journl:v:3:y:1999:i:1:p:1-58

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Metadata types

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Metadata types



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Metadata types

archive

series

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Metadata types

- archive
- series
- working paper
- article
- book
- book chapter
- software component

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Metadata types

- archive
- series
- working paper
- article
- book
- book chapter
- software component
- institution

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Metadata types

- archive
- series
- working paper
- article
- book
- book chapter
- software component
- institution
- person

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Metadata types

- archive
- series
- working paper
- article
- book
- book chapter
- software component
- institution
- person
- data?

Maintaining metadata

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Maintaining metadata

many different maintainers

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Maintaining metadata

- many different maintainers
- varying motivations

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Maintaining metadata

- many different maintainers
- varying motivations
- succession issues

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Maintaining metadata

- many different maintainers
- varying motivations
- succession issues
- technical competence

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Maintaining metadata

- many different maintainers
- varying motivations
- succession issues
- technical competence
- understanding of metadata

The Handle

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The Handle

Persistent identifier

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The Handle

- Persistent identifier
- Used throughout RePEc services

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The Handle

- Persistent identifier
- Used throughout RePEc services
- Unique

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The Handle

- Persistent identifier
- Used throughout RePEc services
- Unique
- Permanent

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The Handle

- Persistent identifier
- Used throughout RePEc services
- Unique
- Permanent
- Unique-Identifier-Never-Change-It

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Why not persistent?

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Why not persistent?

Lack of understanding

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Why not persistent?

- Lack of understanding
- Platform change

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Why not persistent?

- Lack of understanding
- Platform change
- Recycling

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Why not persistent?

- Lack of understanding
- Platform change
- Recycling
- No central authority

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Introduction

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Introduction

Macroeconomic time series collection since 1993

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Introduction

- Macroeconomic time series collection since 1993
- Database with 45,000 series

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Introduction

- Macroeconomic time series collection since 1993
- Database with 45,000 series
- Graphing facility

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Introduction

- Macroeconomic time series collection since 1993
- Database with 45,000 series
- Graphing facility
- Integrated in statistical packages

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Introduction

- Macroeconomic time series collection since 1993
- Database with 45,000 series
- Graphing facility
- Integrated in statistical packages
- Apps, other tools

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Introduction

- Macroeconomic time series collection since 1993
- Database with 45,000 series
- Graphing facility
- Integrated in statistical packages
- Apps, other tools
- ALFRED, GeoFRED

Metadata for data

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Metadata for data

United States: many statistical agencies (plus rest of world)

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Metadata for data

- United States: many statistical agencies (plus rest of world)
- No central authority

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Metadata for data

- United States: many statistical agencies (plus rest of world)
- No central authority
- No consensus metadata format, or data format

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Metadata for data

- United States: many statistical agencies (plus rest of world)
- No central authority
- No consensus metadata format, or data format
- $\blacktriangleright \Longrightarrow$ Just do it

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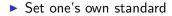
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The FRED approach

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The FRED approach



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The FRED approach

- Set one's own standard
- Identifier schema in place for new data

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The FRED approach

- Set one's own standard
- Identifier schema in place for new data
- Backward compatibility

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The FRED approach

- Set one's own standard
- Identifier schema in place for new data
- Backward compatibility
- Very few persistence issues with sources

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- http://repec.org/
- http://research.stlouisfed.org/fred2/
- zimmermann@stlouisfed.org

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