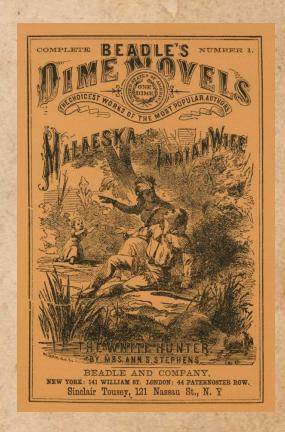
Linked Open Dime Novels; or, 19th Century Fiction and 21st Century Data

Demian Katz, Villanova University

Matthew Short, Northern Illinois University

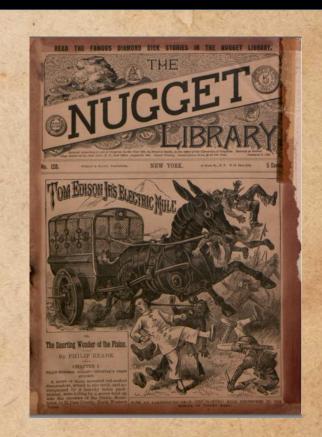
What are Dime Novels?

- Cheaply produced popular fiction sold in the United States in the late 19th century (1860-1915)
- Popular among working class people and children
- Often dealt with issues of gender, class, and race
- Early American genre fiction, including westerns, romance, detective stories, and science fiction

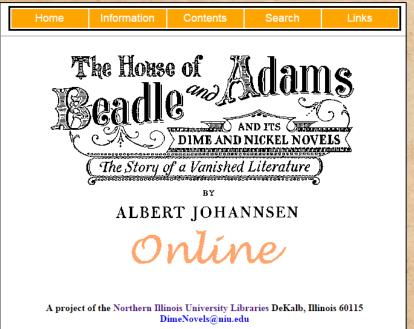


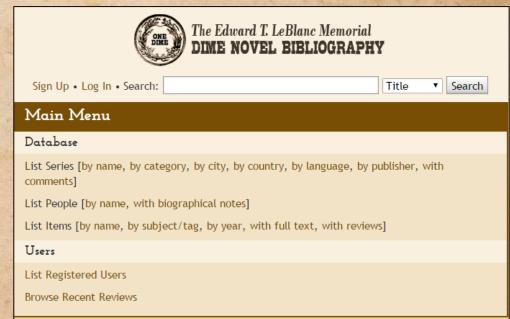
Bibliographic Nightmares

- Always issued in a series, issues often contain multiple stories, stories sometimes serialized
- Frequently reprinted, usually in different formats and with major or minor variations
- Stories often attributed to pseudonyms, which may be shared by several real-world persons



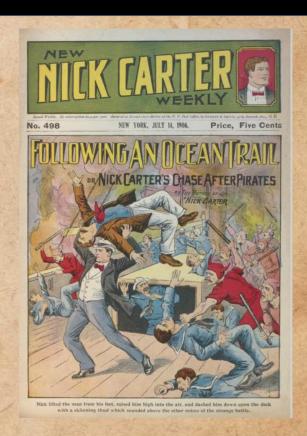
Johannsen and LeBlanc





Digital Dime Novels

- Dime Novel and Popular Literature (Villanova Digital Library)
- Nickels and Dimes (NIU Digital Library)
- Dime Novel Collection (University of South Florida)
- American Women Dime Novel Project
- Nickel Weeklies (Bowling Green State University)
- Dime Novels and Penny Dreadfuls (Stanford University)



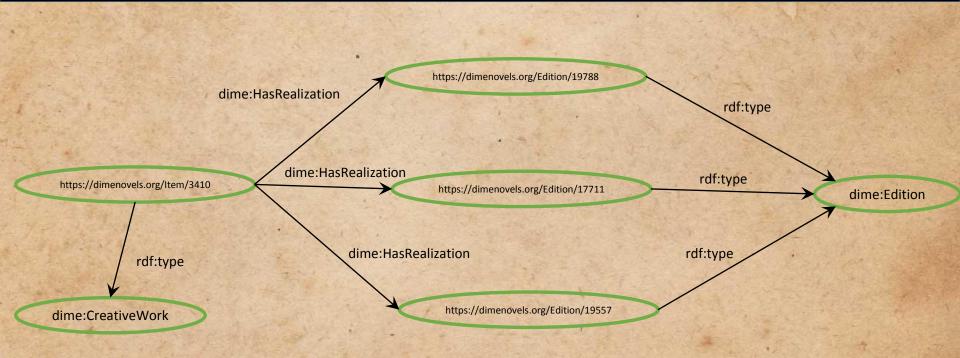


Dime Novel Ontology

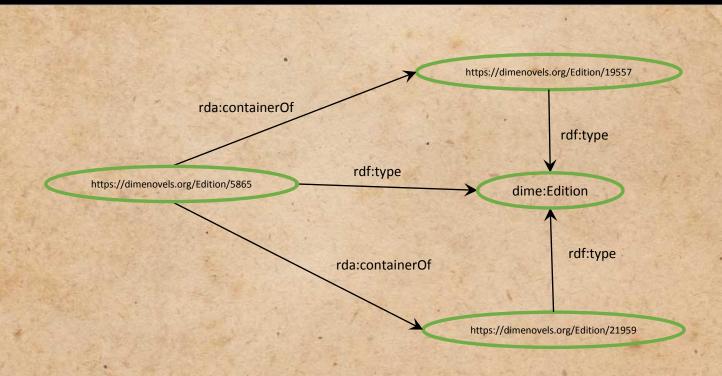
- Local classes and properties, including CreativeWork, Edition, Copy, and Series
- Intended to align with existing dimenovels.org data model
- Majority of properties taken from RDA Unconstrained
- Partial imports of FOAF, SKOS, Dublin Core



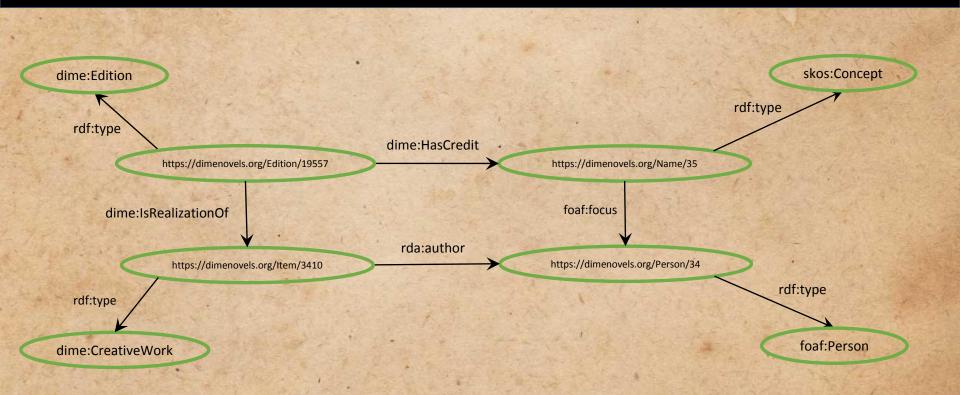
Complex Editions



Complex Containers



Complex Attributions



dimenovels.org Infrastructure

- Built on Geeby-Deeby (PHP/MySQL/Zend Framework 2 application) https://github.com/demiankatz/Geeby-Deeby
- Already structured in an RDF-friendly way, with "pretty" URLs (e.g. https://dimenovels.org/ltem/505)
- Underlying database schema conceptually similar to the desired RDF representation



Incorporating RDF into Geeby-Deeby

- Introduce content negotiation (using \Zend\Http\Header\Accept)
- Create alternate views to render RDF for content (using EasyRDF library)
- Adjust database schema / data entry UI to allow external RDF associations



Ingesting Data with Help from RDF

- NIU includes linked data identifiers in MODS
- These identifiers can be used to match up data between systems
- A custom import tool was written to load NIU data; result: hundreds of new dimenovels.org records, plus numerous errors discovered and corrected on both sides



Sharing Connections with NIU

- The dimenovels.org RDF data contains information about relationships (alternate editions, other full text copies) not expressed in NIU's MODS
- With the help of dimenovels.org
 Edition URIs stored in Fedora and a
 SPARQL query, NIU could display
 additional links in their user
 interface



Attempt 1: Hosted at dimenovels.org

- Wrote Murpoint to harvest all RDF to a single n-triples file: https://github.com/FalveyLibraryTechnology/Murpoint
- Loaded Murpoint output into Fuseki for SPARQL query support
- This allowed a successful implementation.
- Problem: Makes NIU interface dependent on dimenovels.org infrastructure



Attempt 2: Hosted at NIU

- Problem: limited available infrastructure at NIU
- Solution: ARC2, a PHP/MySQL-based library and triplestore
- With a simple change of SPARQL endpoint address, the existing solution continues working
- Key takeaway: RDF is very portable!



Useful Links

Nickels and Dimes: http://dimenovels.lib.niu.edu/

Edward T. LeBlanc Memorial Bibliography: https://dimenovels.org/

Dime Novel Ontology: https://dimenovels.org/ontology

Villanova Dime Novel Collection: http://digital.library.villanova.edu/

Collection/vudl:24093

Geeby-Deeby: https://github.com/demiankatz/Geeby-Deeby

Murpoint: https://github.com/FalveyLibraryTechnology/Murpoint