Towards the documentation and analysis of scholarly interpretations
(MITE WP3)

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Any place for experts' interpretations?

Most of the work done in DH:

↪ Focuses on domain entities of different sorts (artworks, historical events, musical compositions, musical performances, literary texts, etc.)

```
PREFIX schema: <http://schema.org/>
PREFIX mo: <http://purl.org/ontology/mo/>
prefix dcterms: <http://purl.org/dc/terms/>
prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>

select distinct ?event_label ?workPerformance ?date ?work_label where {
?event schema:subEvent ?workPerformance ;
       schema:startDate ?date;
       rdfs:label ?event_label.
?workPerformance schema:workPerformed ?work.
  ?work rdfs:label ?work_label;
       dcterms:creator/schema:name ?creator.

filter(regex(?creator,'des prez','i'))
}order by ?date
```

Josquin des Prez's performances in **Carnegie Hall Data**

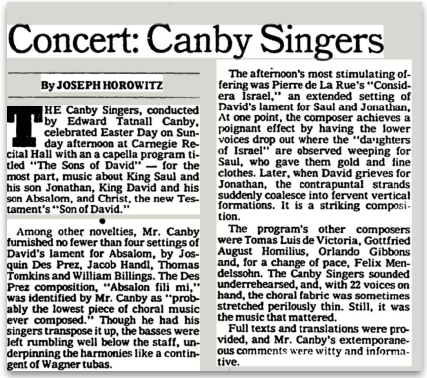
[Carnegie Hall Data](#) (SPARQL Endpoint [link](#)) by [CH Data Lab](#)

Table | Response | 52 results in 1.849 seconds | Simple view ☐ Ellipse ☑ | Filter query results | Page size: 50

	event_label	workPerformance	date	work_label
1	"Musical Art Society of New York"@en	<http://data.carnegiehall.org/ev...	"1897-03-18T20:00:00"^^<htt...	Ave verum corpus Christi
2	"Musical Art Society of New York"@en	<http://data.carnegiehall.org/ev...	"1901-03-14T20:15:00"^^<htt...	Miserere mei, Deus
3	"Public Education Association City History Club C...	<http://data.carnegiehall.org/ev...	"1902-03-22T20:30:00"^^<h...	Ave verum corpus Christi
4	"Symphony Concert for Young People"@en	<http://data.carnegiehall.org/ev...	"1903-11-28T14:30:00"^^<htt...	Ave verum corpus Christi
5	"Musical Art Society of New York"@en	<http://data.carnegiehall.org/ev...	"1914-03-10T20:00:00"^^<htt...	Ave verum corpus Christi
6	"Oscar Ziegler, Piano"@en	<http://data.carnegiehall.org/ev...	"1929-04-05T20:30:00"^^<h...	Agnus Dei
7	"Dessoff Choirs"@en	<http://data.carnegiehall.org/ev...	"1948-12-05T17:45:00"^^<htt...	Ave Maria
8	"Dessoff Choirs"@en	<http://data.carnegiehall.org/ev...	"1948-12-05T17:45:00"^^<htt...	De profundis
9	"Boys Town Choir"@en	<http://data.carnegiehall.org/ev...	"1950-11-04T14:30:00"^^<htt...	Ave vera virginitas
10	"Boys Town Choir"@en	<http://data.carnegiehall.org/ev...	"1951-11-03T14:30:00"^^<htt...	Ave vera virginitas

Any place for experts' interpretations?

Scholars and critics react to performances



Concert: Canby Singers

By JOSEPH HOROWITZ

THE Canby Singers, conducted by Edward Tatnall Canby, celebrated Easter Day on Sunday afternoon at Carnegie Recital Hall with an a capella program titled "The Sons of David" — for the most part, music about King Saul and his son Jonathan, King David and his son Absalom, and Christ, the new Testament's "Son of David."

Among other novelties, Mr. Canby furnished no fewer than four settings of David's lament for Absalom, by Josquin Des Prez, Jacob Handl, Thomas Tomkins and William Billings. The Des Prez composition, "Absalon fili mi," was identified by Mr. Canby as "probably the lowest piece of choral music ever composed." Though he had his singers transpose it up, the basses were left rumbling well below the staff, underpinning the harmonies like a contingent of Wagner tubas.

The afternoon's most stimulating offering was Pierre de La Rue's "Considera Israel," an extended setting of David's lament for Saul and Jonathan. At one point, the composer achieves a poignant effect by having the lower voices drop out where the "daughters of Israel" are observed weeping for Saul, who gave them gold and fine clothes. Later, when David grieves for Jonathan, the contrapuntal strands suddenly coalesce into fervent vertical formations. It is a striking composition.

The program's other composers were Tomas Luis de Victoria, Gottfried August Homilius, Orlando Gibbons and, for a change of pace, Felix Mendelssohn. The Canby Singers sounded underrehearsed, and, with 22 voices on hand, the choral fabric was sometimes stretched perilously thin. Still, it was the music that mattered.

Full texts and translations were provided, and Mr. Canby's extemporaneous comments were witty and informative.

Joseph Horowitz's review in the New York Times about a performance of one of des Prez's musical compositions

At the current state, the formal representation of **scholarly claims** is mostly left aside…

… although its **fundamental role** for scholars'/critics' investigations

Make it explicit (MITE)

Single literary text

→ **Multiple** interpretations, i.e., multiple *interpretive data*

In particular:

- Large quantities of data
- Highly heterogeneous from a terminological/conceptual perspective
- Supported by means of different *aesthetic, cultural, and historiographical categories*
- Disagreements and contradictions

Some research questions (within WP3)

How can we support the **computational documentation** and **analysis** of critical interpretations of literary texts?

How can we represent **fictional literary characters** within a **modeling framework** that takes into account multiple and possibly incompatible characters' **interpretations**?

How can we handle cases where (characters') interpretations are provided on the basis of **different conceptual systems**?

Research hypothesis

An **observation language** (OL):

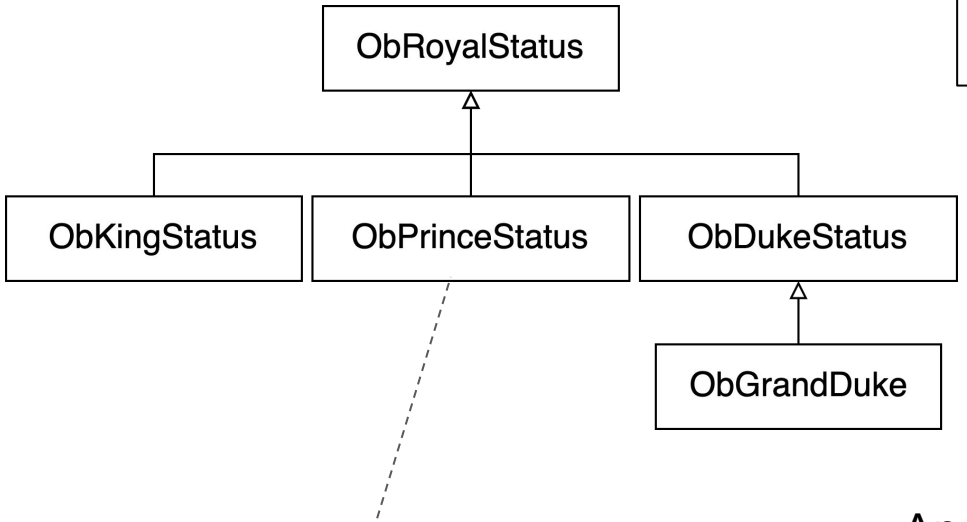
- Designed in tandem with *domain experts* (scholars, critics, students)
- To extract *some* portions of data from the texts of scholars and critics

↪ **Goal:** To document what experts publicly claim about (the contents of) literary texts, characters, etc. ..

Intuitively:

- An observational language consists of terms and relations whose *intended meaning* is shared among a working community
- Terms and relations stand for the *attribution of properties* to the entities in the discourse

Example of observations



Attribution of royal status

$\texttt{ObPrinceStatus(o)} \wedge \texttt{Arg}_1\texttt{(Hamlet,o)}$

An observation attributing to Hamlet the property of *being prince*

Preliminary work /1

Decameron, Tale X, 10 (*Griselda and Gualtieri*), and its interpretations.

Observational language (first-order logic, FOL) designed to capture relations between texts as well as between characters in the texts:

- **Branca**: connects Boccaccio with Medieval culture; connection between B. and hagiographic narratives; similarity between Griselda and the Virgin Mary.

- **Picone**: connects B. with chivalry and courtly literature – Marie de France's *Lais*; similarity between Griselda and Fresne, etc.

- **Candido**: connects B. with classic culture – Apuleius' *Metamorphoses*; similarity between Griselda and Psyche, etc.

Preliminary work /2

Examples - based on Branca, *Boccaccio medievale*, 1996**:**

```
ass(bmd,sup(ass(tlx,pat(gri)) + ass(hag,pat(mary)),
sim(griselda,mary)))
```

Branca's text *bmd* asserts that the observation *ass(tlx,pat(gri)) and ass(hag,pat(mary))* supports the observation of similarity between Mary and Griselda

Different kinds of observations:

- Assertion: `ass`
- Support: `sup`
- Similarity: `sim`
- Being patient: `pat`

Different texts:

- `bmd`: by Branca
- `tlx`: Decamerone's tale
- `hag`: Hagiographic sources

Preliminary work /3

- `pat(griselda)`
  Griselda is observed as being patient
- `ass(tlx,pat(griselda))`
  Decameron's tale *tlx* asserts *pat(griselda)*
- `ass(bmd,ass(tlx,pat(griselda)))`
  Branca's text *bmd* asserts that according to the Decameron's tale *pat(griselda)*
- `ass(bmd,ass(hag,pat(mary)))`
  Branca's texts *bmd* asserts that according to text *hag* Mary is patient
- `ass(bmd,sup(ass(tlx,pat(gri)) + ass(hag,pat(mary)),`
  `sim(griselda,mary)))`
  Branca's text *bmd* asserts that the observation *ass(tlx,pat(gri)) and ass(hag,pat(mary))* supports the observation of similarity between Mary and Griselda

Preliminary work /4

Introduction of various formal mechanisms to compare observations:

- **Assertion/rejection** of observations.
  - `ass(bmd,sim(griselda,mary))` [Branca's thesis]
  - `rej(bcn,sim(griselda,mary))` [Picone's thesis]

- **Disputability** of observations:
  - An observation is disputable, when it is asserted and rejected by different texts
  - The case of observation `sim(griselda,mary)` according to Branca and Picone

See: Sanfilippo, E. M., Sotgiu, A., Tomazzoli, G., Masolo, C., Porello, D., Ferrario, R. (2023). *Ontological Modeling of Scholarly Statements: A Case Study in Literary Criticism*. In: Formal Ontology in Information Systems: Proceedings of FOIS 2023. IOS Press (link)

Similar initiatives

Musicology: Research project (by Richard Freedman, Haverford College USA): CRIM - Citations: The Renaissance Imitation Mass Project (link)

Fine arts: Sartini, B., Baroncini, S., van Erp, M., Tomasi, F., & Gangemi, A. (2023). ICON: an Ontology for Comprehensive Artistic Interpretations. ACM Journal on Computing and Cultural Heritage.

Literature: Schöch, C., Hinzmann, M., Röttgermann, J., Dietz, K., & Klee, A. (2022). Smart Modelling for Literary History. International Journal of Humanities and Arts Computing, 16(1), 78-93; Gius, E., & Jacke, J. (2017). The hermeneutic profit of annotation: On preventing and fostering disagreement in literary analysis. *International Journal of Humanities and Arts Computing*, *11*(2), 233-254.

Discussion

RH1: *observational languages* - based on ontologies, formal logic, knowledge representation methods

- Shared formal languages designed with domain experts
- Adoption of logical mechanisms to analyze and compare the data
  - > Limitations in expressing the nuances of natural language

Discussion

RH1: *observational languages* - based on ontologies, formal logic, knowledge representation methods

- Shared formal languages to document scholars' and critics' interpretive data
- Adoption of logical mechanisms to analyze and compare the data
  > Limitations in expressing the nuances of natural language

RH2: *natural language sentences* - combination of above methods and linguistics

- Analysis of natural language sentences through which experts express their interpretations of texts and characters
- More flexible in documenting and comparing experts' assertions in natural language
  > No (formal) observational languages

Some research challenges

1) In a scholarly text, what should we document and analyze with respect to other texts?

   ↪ **Which data should we document and analyze?**

2) Which existing theories or methodologies of literary interpretation can facilitate the development of observational languages?

   ↪ **On the basis of which conceptual systems do we extract data?**

3) How can we support the comparison of observational languages produced by different communities?

   ↪ **How do we compare data about the same texts that are produced by different interpreters on the basis of different languages?**

Thank you!

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