

The *MQDQ Galaxy*: Core Functionalities, Recent Developments, and Future Perspectives

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Abstract

This contribution seeks to provide a concise guide to the principal research functionalities offered by the archives of the so-called “*MQDQ Galaxy*”, referring readers to the relevant permalinks and the most recent bibliography about the project. It also aims to report on a number of recent initiatives designed to enhance the potential of the textual analysis tools and to address the principal challenges faced by long-term digital projects.

Keywords: Latin poetry, *MQDQ Galaxy* project; *Musa Medievalis*; digital archives; digital editions

Questo contributo vuole offrire un quadro sintetico delle principali funzionalità di ricerca e delle più recenti aggiunte alla cosiddetta “Galassia MQDQ”, con particolare attenzione alle iniziative intraprese per migliorare la ricerca degli utenti e per incrementare la possibilità di collaborazione degli studiosi. Un focus specifico è dedicato ad alcune riflessioni sulle sfide che ogni progetto digitale di lungo corso si trova oggi ad affrontare.

Parole chiave: poesia latina; *MQDQ Galaxy* project; *Musa Medievalis*; archivi digitali; edizioni digitali

The digital archives and research tools encompassed within the so-called *MQDQ Galaxy*, established with the financial support of Italian research grants and developed thanks to the pioneering vision of Paolo Mastandrea and Luigi Tassarolo, now constitute a long-standing and mature infrastructure. Started in 1999 with the creation of a digital library of Italian Neo-Latin poetry (<https://www.poetiditalia.it/>), the project was significantly expanded in 2005 through the development of the principal *MQDQ* archive, which today includes the complete corpus of ancient Latin poetry (approximately half of which is accompanied by a critical apparatus: www.mqdq.it). The *Galaxy* further incorporates *Pedecerto*, a tool designed by Luca Mondin and again Luigi Tassarolo, that provides automated metrical analysis of dactylic verses and several connected functionalities (<https://www.pedecerto.eu/>). The overall goal of these combined, open access tools is to support a “traditional,” philological

study of Latin poetry, focusing on historical stratification and the influence of texts, including their variant readings.¹ For those who may not be familiar with the “Galaxy”, I provide below a brief guide to approaching a selection of main research functionalities offered by the *MQDQ* archives. It should, however, be emphasised that the search interface has been deliberately designed to be as intuitive as possible, so that engagement with it is really easy and may itself become a source of further inspiration.

1. *MQDQ* Search functions



The basic search for word-forms includes several parameters: e.g. position within the verse, distance and order, variant readings, and metrical patterns. Whenever the search function may appear less than intuitive, the interface provides users with guidance, indicated by a ‘?’ symbol. A particularly significant enhancement, recently implemented, is the Cross-Database Search, which enables users to conduct queries across the entire open access archive. This encompasses not only the corpus of ancient Latin poetry but also a relevant selection of Medieval and Neo-Latin Italian texts, without any discontinuity (see § *Musa Medievalis* and Fig. 7).

¹ Over the years, numerous contributions have documented the *MQDQ* project, its partners and scientific goals: the project is the outcome of a number of Italian **PRIN** grants (1991, 2001, 2005, 2007: P.I. Paolo Mastandrea) and one **FIRB** grant (2011: P.I. Emanuela Colombi) involving the collaboration of several Italian universities and numerous scholars. For comprehensive information and contact details, see the project website: <https://pric.unive.it/projects/mqdq-galaxy/home>. Here, as a reference bibliography complementing this brief guide, I shall cite a selected number of papers outlining the history of the project, its functionalities, software specifications, and subsequent developments: [1],[2],[3],[4],[5],[6]. The recent additions, which will be presented here only in summary form, are described in detail in [7].

The image shows the MQDQ Search interface. At the top, there is a navigation bar with the MQDQ logo and several menu items: Home, Search, Co-occurrences, Indices, Metrical typology, and Epigraphica. Below the navigation bar is a search form. The form has a blue header labeled 'Key'. Underneath the header is a search input field, followed by two dropdown menus: 'all the words' and 'any position in the verse', and a blue '+' button. Below these are several expandable sections: 'Distance/Order', 'Feature' (with radio buttons for 'Search for FORMS' and 'Search for LEMMAS', and a checkbox for 'Show word-forms while using wild cards'), 'Variants', 'Metres', 'Cross Database Search' (with checkboxes for 'Musa Medievals' and 'Italian Poetry in Latin'), and 'Authors/works'. At the bottom of the search area is a blue 'Do' button with a magnifying glass icon.

Figure 1 - *MQDQ* Search interface

A more refined search function is the co-occurrences search, which enables users to compare a “source text” with a “target text” on a line-by-line basis, once again taking variant readings into account. Its purpose is, of course, to investigate the impact of a given text upon subsequent tradition, as well as to highlight the influence of variant readings (when available within the archive) which we may today regard as *deteriores*, but which may in earlier centuries have circulated as genuine.

MQDQ Home Search Co-occurrences Indices Metrical typology Epigraphica The team  

Metrical and verbal co-occurrences

11 Export New search

Fucinus et diri taceantur stagna Neronis: (MART. spect. 28, 11) 433 hexameters or pentameters found

1 2 3 4 5 > >> Arrange by importance

CLAVD. Hon. III cos. 120	Dálmátiá: Phrygiá númerántúr stágná Tímáui.
ARATOR apost. 2, 1149	Línquítúr, ét tētrí súpērántúr stágná drácónis,
IVV. sat. 10, 15	Témpöríbús dirís ígítúr iüssúqué Nérónis
TIB. eleg. 1, 3, 77	Tántálüs ést íllíc, ét círçüm stágná : sēd ácrem
IVV. sat. 4, 38	Vítímús ét cáluó sēruírēt Rómā Néróni,
PRVD. c. Symm. 1, 482	Múluús éxcéptúm Týbérína_in stágná týránnum

Figure 2 - Search for the combination of metrical and verbal co-occurrences of a specific verse (in this case, Mart. *spect.* 28,11)

Special mention should be made of *Pedecerto*, the tool for the metrical analysis of dactylic verses, which offers a wide range of research functions: e.g. word type, verse type, metrical patterns, prosodic structures and so on. In view of the technical expertise required to undertake this form of analysis, each search form is accompanied by detailed guidance to support the user, once again indicated by the ‘?’ symbol. It is also evident how valuable this tool can be for didactic purposes: all dactylic verses within the archive are automatically scanned, the system generates detailed statistics based on the text *corpora*, and it is also possible to submit free verses for scanning.

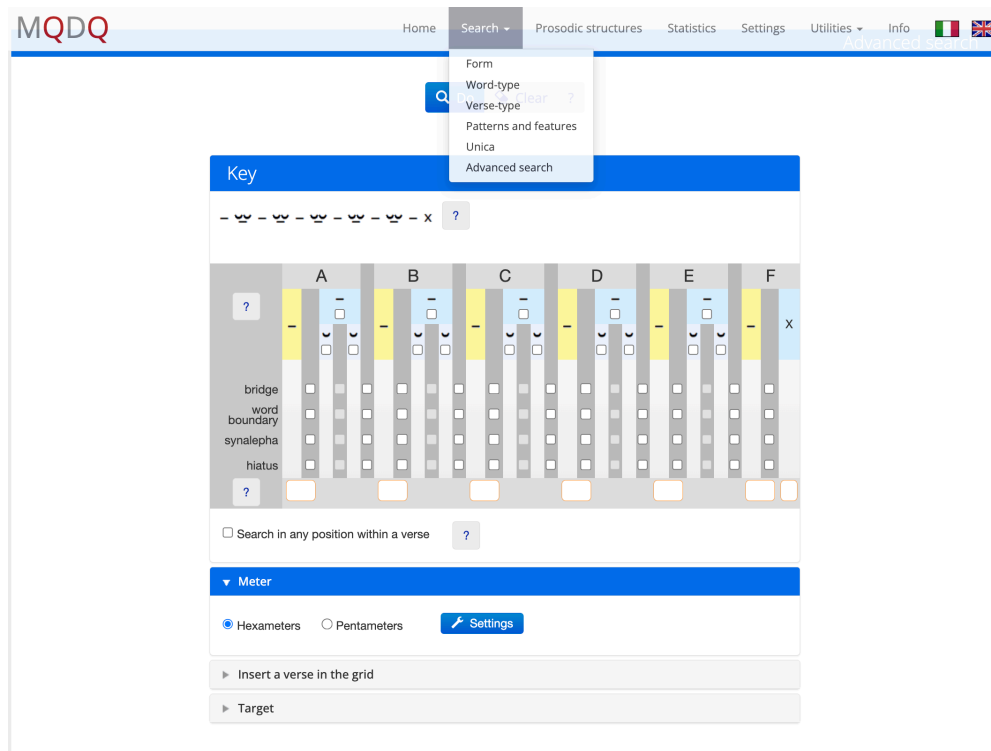


Figure 3 - *Pedecerto*: basic search

In recent years, this digital ecosystem has undergone a comprehensive process of reengineering and structural renovation. I will now provide a brief overview of its most recent additions and experimental initiatives.

2. Wiki-MQDQ

A new web-based collaborative editing platform (*Wiki-MQDQ*), developed with the support of the Venice Centre for Digital and Public Humanities (VeDPH, Ca' Foscari Venice), has been introduced. The platform, accessible through a personal account (<https://www.mqdqgalaxy.it/public/backend>), enables users to contribute and insert data through a streamlined and user-friendly interface that requires neither any digital expertise nor knowledge of markup languages. This is expected to hopefully increase and improve collaboration.

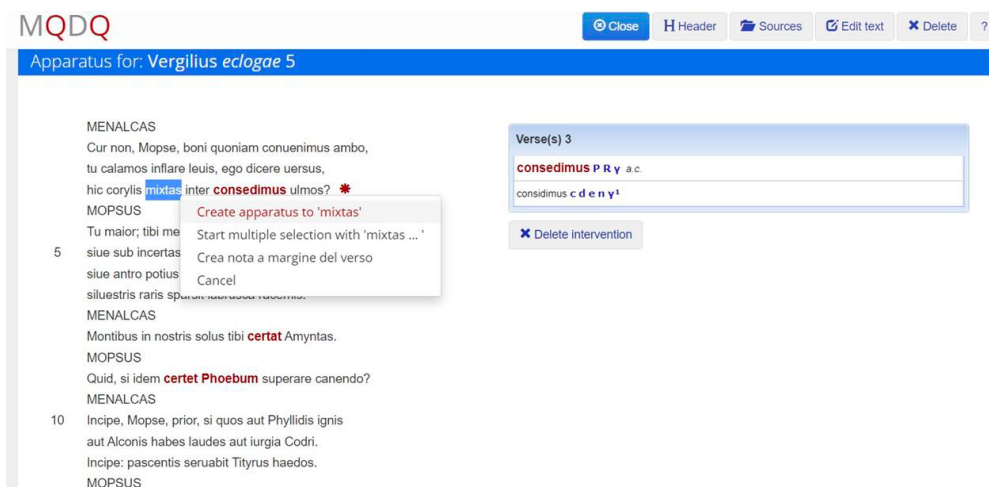


Figure 4 - Wiki-MQDQ. Data entry

3. Manuscripts description

In 2023, a preliminary integrated description of manuscripts was incorporated into the archive. The goal was to link texts transmitted by the same codex, thereby providing readers with an immediate and coherent overview of each text's transmission history. This functionality, however, is possible only when a text is accompanied by a critical apparatus that documents the manuscripts in which it survives. At present, the process remains ongoing, and the results therefore require further refinement and substantial improvement. In general, the project pursues the objective of fostering effective interoperability among existing digital resources: each manuscript described within the *MQDQ Galaxy* is therefore linked to the corresponding catalogue entry of the holding library or institution; In the future, it would be highly desirable to implement a permalink also to the *Mirabile* open-access manuscript catalogue, which provides up-to-date and comprehensive records aligned with the scientific aims of *MQDQ*.

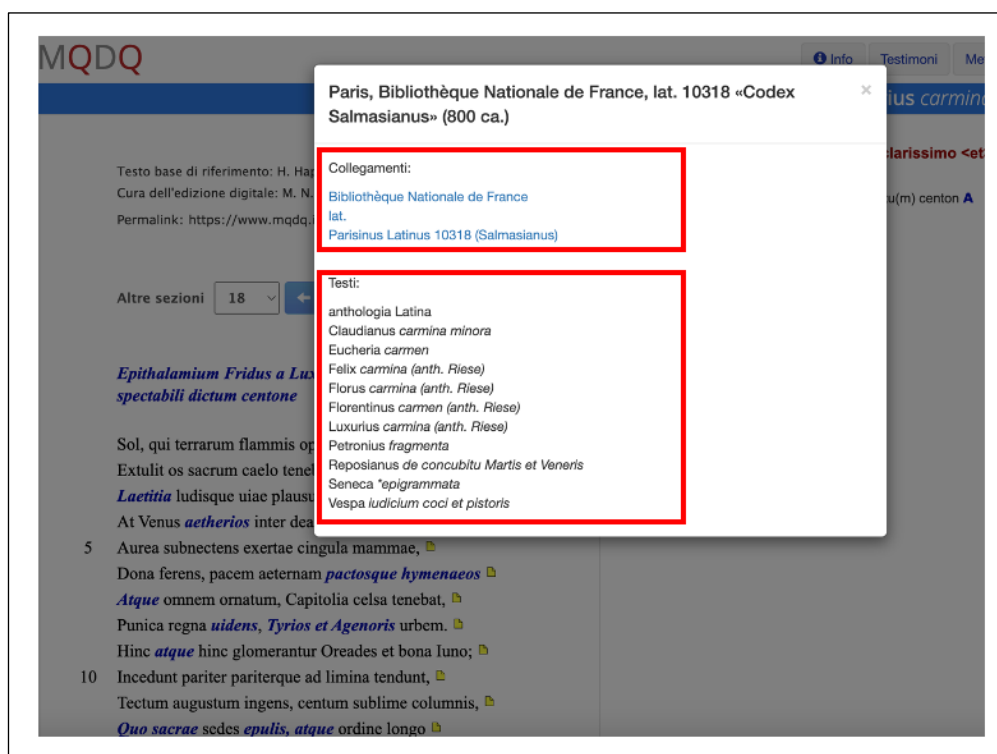


Figure 5 - Description of a manuscript comprising different works

4. *Carmina Latina Epigraphica*

In 2023, the *CLE* corpus was expanded and enriched with new texts and additional information, including several types of metadata: concordance with the numbering of reference epigraphic collections; links, where available, to entries in major epigraphic digital databases (e.g. *EDCS*); bibliographic references; geographical location; and metrical features (<https://www.mqdq.it/ce/presentazione>).

MQDQ

Scansione metrica Chiudi

carmina epigraphica, Bücheler - Lommatzsch

CLE 01378 = CIL 13, 05251 = IBR 00070 = ILCV 01079

Hoc iacit in tumulo quem fleuit *Retica* tellus,
Maxima summorum gloria pontificum,
Abiectis qui fudit opes nudataque textit
Agmina captiuis praemia larga ferens.
5 Est pietas uicina polo, nec funeris ictum
Sentit, ouans factis qui petit astra bonis.
His pollens titulus, Valentiane sacerdos,
Crederis a cunctis non potuisse mori.

Provincia: Raetia / Località: Curia / Chur
Datazione: 7/1/548 d.C.

Praescriptum: S(an)(tra)e m(emoriae) ep(is)c(opo)s

Postscriptum: qui vixit in hoc sae(culo) ann(orum) p(lu)s m(i)l(ibus) LXX die(p(ositus) sub die) VII id(us) Ian(uarias) / sep(ties) p(ost) c(onsulatum) Bas(i)l(i) v(iri) c(larissimi) c(ons)ul(is) ind(ictione) XI Paulinus ne/pos ipsius hec fieri ordinavit

EDCS
EDH
TM

Testo base di riferimento: CLE 01378
Cura dell'edizione digitale: A. Prontera, 2022

Figure 6 - *Carmina Latina Epigraphica* in MQDQ

5. *Musa Medievalis*

In 2025, a corpus of Latin Medieval poetry texts (c. 650–1250), based on a revised and updated version of the *PoetriaNova 2* collection previously edited by Paolo Mastandrea and Luigi Tessarolo (SISMEL 2010², *cd-rom*), was made available for integrated search through MQDQ functionalities (<https://www.musamedievalis.it/>). With this addition, a truly unique open-access research tool has been created, enabling scholars, students, and readers to explore the *corpus* of Latin poetry from its origins through to Italian Humanism. The Medieval collection, as well as the collection of Neo-Latin poets, is not yet complete and sometimes contains texts that do not fully align with the most recent editions. It is therefore planned to be expanded and improved in the future. Nonetheless, it already meets users' needs by enabling the exploration of over two thousand years of Latin poetry within an open-access environment and with continuous chronological coverage.

Source	Text Snippet
TER. Phorm. 840	O Fortuna, o Fors Fortuna, quantis commoditatibus,
SEN. Herc. f. 524	O Fortuna uiris inuida fortibus,
ANTH. Lat. 629, 1	O Fortuna potens ac nimium leuis,
CARM. epigr. CLE 00442, 3	O Fortuna, fidem quantam mutasti maligne:
CARM. epigr. CLE 02121, 1	O Fortuna, hominum dubia quae fata gubernas,
CARM. epigr. CLE 00544b, 9	O Fortuna duplex ad a[cerbos promptior ictus].
REGIN. CANT. carm. 6, 1	O fortuna gravis, gravior nobis nece quavis:
HILD. CEN. carm. min. 22, 86	O Fortuna, quod es, quod potes ipse dedit.
GALTER. Alex. 1, 478	*O fortuna uiri superexcellencior,* inquit
STEPH. ROTH. Norm. 1, 393	O fortuna gravis, quid tantis floribus instas?
ODO MAGD. Ern. 6, 49	*O Fortuna feris hydrys plus effera, peior
CARM. Bur. seria 1, 1.1	O fortuna
CARM. Bur. seria 76a, 1	O Fortuna levis, cuiuis das omnia quaeuis,
CONVEN. carm. 41, 7	O Fortuna, graves mergensque sub equore naves
G. FILELFO Amyris 3, 263	O fortuna hominum variis cumulata periculis!
T. FOLENGO egl. 2, 1	O fortuna mihi tantum perversa, ribalda,
T. FOLENGO Zanit. (Tusc.) 933	O fortuna mihi nimium rabiosa tapino,
T. FOLENGO Zanit. (Vig. Coc.) 800	O fortuna nimis povero crudela Tonello,
T. FOLENGO Zanit. (Vig. Coc.) 1088	O fortuna, quid hoc superor!

Figure 7 - Integrated search within *MQDQ Galaxy Archives*

6. Challenges and Perspectives

In recent years, some of the most significant challenges we have faced are common to all long-term digital humanities projects, including obsolescence, sustainability, legacy management, preservation, cybersecurity, privacy policy, scholarly recognition, and financial constraints.² To address these issues and explore future directions, several measures have implemented: the project has been updated from 1990s standards to internationally recognized standards and FAIR principles, enhancing interoperability and sharing data; additionally, the overall architecture and workflow have been redesigned, including the establishment of a GitHub repository, the development of a new archival update process, and integration into the CLARIN network.³ To address financial and technical challenges, several proposals are under consideration: first, institutional collaboration agreements have been established, aiming to formalize frameworks of support. Even where direct financial contributions are not feasible, the provision of infrastructure and/or technical services constitutes a significant advancement. This approach has been successfully implemented e.g. with the Istituto di Linguistica Computazionale Zampolli (CNR Pisa), and Ca' Foscari Venice University (VeDPH, IT Service). Furthermore, it is essential to reconsider how proposals for competitive funding are drafted. From the planning phase, it is important to define clearly the contribution of each partner university in sharing long-term

² I discussed these issues at the International Workshop *Classical Texts in Digital Media II: Digital Methods for Editing and Studying Ancient Texts* (Venice, June 2025). My contribution was entitled *The Past as Future: Challenges and Perspectives in Developing Digital Tools for the Study of Latin Texts*.

³ See Del Grosso, Tessarolo and Boschetti in [8]; see CLARIN-IT repository hosted at ILC A. Zampolli: Poeti d'Italia: <http://hdl.handle.net/20.500.11752/OPEN-556>; *MQDQ*: <http://hdl.handle.net/20.500.11752/OPEN-555>.

responsibilities. In addition, it may be beneficial to exchange solutions and establish agreements with recently funded large-scale projects, such as European Research Projects, which can provide resources to further develop innovative ideas, particularly in training AI to address philological and literary challenges. Finally, the scholarly—and broader social—recognition of digital humanities work is the subject of an ongoing debate within the Italian scientific community. To address this issue, we have pursued two complementary approaches. First, we have sought to quantify the “social impact” of the *MQDQ* archives and search functions by implementing a tracking system that records individual user visits, which currently average between 20,000 and 25,000 per month.⁴ This information is particularly significant in the context of requirements for competitive funding calls. Second, we are working to establish substantial collaborations with publishers and to make our archive a fully recognized (digital) edition, complete with standard identification numbers and all features expected of “traditional” publications: the *LaLaLexiT* project, closely connected to the *MQDQ Galaxy* and described in this very same issue of *Umanistica Digitale*, represents an initial attempt in this direction.

References

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⁴ The counter is accessible within the reserved area in the *MQDQ Galaxy* backend.

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