

Humanist texts in a digital age

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Abstract | Studying the national classics of Hungarian literary history, including the Latin-language oeuvre of early modern humanists of Hungarian ancestry or relevance, has been the mission of the Hungarian Academy of Sciences since its establishment in 1825. The Textological Committee of the Academy was founded in 1960. The Committee provides quality assurance for the text editions of Hungarian national classics. Most of the critical editions are produced by the Institute for Literary Studies (Budapest). The efforts of the Committee and the Institute have resulted in several hundred volumes of critical text editions in the past decades.

Two of the most important challenges the Committee and the Institute is facing today include (1) managing the retrospective publication of the digitized versions of existing paper editions and (2) making sure that the possibilities offered by digital technology are considered when new critical editions are prepared. The Institute for Literary Studies launched a website in 2019 to share the critical editions that have already been published in print, accomplishing the first step in the electronic processing of critical editions in the form of searchable facsimiles. The Institute has also started to publish truly digital, semantic web-based critical editions. It has built a separate platform to house these, the philological portal called *DigiPhil*. The editions for the latter undergo semantic processing by markup elements created according to the syntax of the Text Encoding Initiative. In addition to these projects of online publication, the technology necessary to produce digital text editions is present from the start in the text management practice of the specialists who work on the research, meeting the word processing needs of professional philological-textological work.

Keywords | digital philology, electronic text processing according to TEI guidelines, *Bibliotheca scriptorum medii recentisque aevorum*, online portals of national classics, history of Neo-Latin studies in Hungary 2002–2023

The Hungarian Academy of Sciences (HAS) was originally established in the early nineteenth century to conduct linguistic and literary research, including laying the foundations of research in Hungarian literary history. Studying the national classics of Hungarian literary history has been the mission of the Academy ever since, thus HAS plays an essential role in the research on the oeuvre of classic authors.¹ Scholarly text editions are prepared of the oeuvre of national classics or compiled from certain periods of literary history, according to genre. This work is supervised by the Textological Committee of HAS, which was created for this purpose in 1960.² Its functions include the formulation of mandatory standards and methodological recommendations for the critical text editing of Hungarian national classics, the coordination and supervision of such work in different workshops, the approval of plans for text editions, and the accreditation of series and individual volumes as scholarly editions. In short, the Textological Committee provides quality assurance for the text editions of Hungarian national classics. Most of these critical editions are produced by the Institute for Literary Studies,³ with contributions from various faculties of literary history at prominent Hungarian universities.⁴ The efforts of the Committee and the Institute have resulted in several hundred volumes of critical text edition during the last few decades.⁵ Thus, the most important authors of Hungarian literary history are available for study in high-quality, reliable editions that are based on carefully considered, uniform principles. These critical editions provide the basis for the popular text editions that target a wider audience.

All the Latin-language texts of the Middle Ages and early modern times written in the Kingdom of Hungary and the Principality of Transylvania are obviously part of the literary history of the nation, or in a broader sense, the textual component of the national cultural heritage. A text may be considered part of national cultural her-

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- 1 For a summary of the nineteenth-century beginnings and the recent series of text editions see: SZILÁGYI Ferenc, "Akadémiánk »Nemzeti Könyvtár«-terve 1850-ből s jelenlegi szövegkiadásunk" [The plan for a series with the title *National Library* of the Hungarian Academy of Sciences in 1850, and our recent text editions], *Magyar Tudomány* 88, no. 3 (1981): 186–194.
 - 2 KLANICZAY Tibor, "A textológiai munka problémái" [Problems of the textological work], *A Magyar Tudományos Akadémia I. (Nyelv- és Irodalomtudományi) Osztályának Közleményei* 19 (1962): 339–349.
 - 3 The Institute for Literary Studies was an institute of the HAS from its establishment in 1956 until 2019. It operated as an independent institute until 2011, and as part of the Research Centre for the Humanities from 2012. The Hungarian government, despite strong protest from both the international and the Hungarian scientific community, stripped the HAS of its institutes in September 2019 and created a new research body from the previous academic institutes, called the Eötvös Loránd Research Network. From September 2023, this organisation is called the Hungarian Research Network.
 - 4 The Institute for Literary Studies received the Institute of Research Excellence qualification in 2022, first awarded to 95 outstanding Hungarian scientific workshops by the HAS. Beside the troubled previous Institute for Literary Studies of the Academy, two other research centers received this prestigious recognition in literary studies, the institutes teaching literary and cultural studies at Eötvös Loránd University (Budapest) and at University of Debrecen.
 - 5 A bibliography of the critical text editions supervised by the Textological Committee can be found on the website of the committee (<http://textologia.iti.mta.hu>). This bibliography contains 506 volumes at the present time.

itage either because its author was born in Hungary (including Transylvania), because the author was a foreigner who was temporarily or permanently living or working in these territories, or they may have had a diplomatic posting or took part in the humanist scholarly and literary life of a regal, aristocratic, or pontifical court here. The Latin texts of these authors are naturally inseparable from the intellectual setting they were written in, and they often illustrate the essential political, historical, or ideological views of their time. Furthermore, the Latin texts written by authors who only came to Hungary for a short period of time must also be valued. These writers arrived as soldiers, merchants, or diplomats, but they recorded their experience and adventures in texts that defined the historical and political knowledge available about Hungary as well as the ideas of national characterology in Western European readers' mind for a long time.

Compared to the enormous number of Latin literary works that were either written in Hungary or have Hungarian links, only relatively few pieces have been published in critical editions in recent decades. The most significant undertaking can be linked to László Juhász (1905–1970), who launched the series *Bibliotheca scriptorum medii recentisque aevorum* (*BSMRAe*) in 1930. At a recent philological conference in Miskolc in 2011, Ágnes Ritoók Szalay (1931–2022) summarized everything that could be collected about Juhász and his monumental venture.⁶

Despite some of his idiosyncratic habits, which are still recalled by many with affection, it seems that László Juhász' extraordinary endurance, exceptional commitment, and financial sacrifices (often beyond his means) created an essential and lasting series of research on Neo-Latin literature in Hungary, the scholarly quality of which is still difficult to match or exceed in certain regards. With the exception of 1940, at least one volume was published in the series every year between 1930 and 1946,⁷ and there were exceptionally successful years, such as 1932, when eight volumes were published (if my calculations are correct). The opening volume of 1930, which was compiled from Galeotto Marzio's letters, only included an eight-page introduction and twelve pages of text, and the first years were dominated by publishing smaller humanist oeuvres or shorter collections prepared from the more significant oeuvres, according to genre. However, the time for one of the most important narrative sources of Hungarian medieval history, Master P.'s *Gesta Hungarorum*, came as early as 1932. From the Hungarian Latinists, Juhász managed to gain the cooperation of Kálmán Eperjessy (1893–1976), József Főgel (1884–1941), József Holub (1885–1962), Béla Iványi (1878–1964), Tibor Kardos (1908–1973), Mária B. Révész, Oszkár Sárkány (1912–1943), and Anna Vargha (1912–1960). He also found foreign colleagues to join in, for example, German scholars to look after the works of Conradus Celtis, Czech scholars for the writings of Bohuslaus Has-

6 RITOÓKNÉ SZALAY Ágnes, "Juhász László és a *Bibliotheca*" [László Juhász and the *Bibliotheca*], in *Filológia és textológia a régi magyar irodalomban: Tudományos konferencia, Miskolc, 2011. május 25–28.* [Philology and textology in the old Hungarian literature], eds. KECSKEMÉTI Gábor and TASI Réka, 53–61 (Miskolc: Miskolci Egyetem BTK Magyar Nyelv- és Irodalomtudományi Intézet, 2012).

7 For a complete bibliography of the volumes in the series see: <http://textologia.iti.mta.hu/csv/kiadvany.php?item=4>.

sensteinius, Jacobus Canter Frisius and others, and an Italian scholar for Naldus Naldus. A serious step forward was taken when the time came to publish Antonio Bonfini's work, which was written in King Matthias' court and summarizes the history of the Kingdom of Hungary until the end of the fifteenth century. It aimed for completeness and was prepared using humanist methods, determining Hungarian historical consciousness for centuries. Its extensive text was published on more than a thousand pages, in four volumes (three in 1936, one in 1941) as a result of a cooperation between Juhász, Fögel, and Iványi. Bonfini's other work that can be linked to the court of Buda, *Symposion de virginitate et pudicitia coniugali*, was edited for publication by István Apró in 1943.

Following the publication of 39 volumes, there was no chance to continue the research after World War II, since the series published the elite literature of Latin humanism and was organised by a civil initiative that had connections to the neighbouring countries, taking no account of social historical frameworks. The series was seemingly dead for three decades. Its re-launch was initiated by Tibor Klaniczay (1923–1992), head of the Institute for Literary Studies and the Textological Committee, who did everything to start the *nova series* with cooperation from scholars of literary history and history, also attracting renowned foreign researchers to the project. It is of symbolic value that the first published volume was an index for Bonfini's *Decades* in 1976, followed by historiographic and literary works from the Hungarian Middle Ages and early modernity in voluminous, hard-cover books. The new series is presently at number 19, but as each number may contain multiple volumes, many more volumes have been published. The complete edition of Andreas Dudith's correspondence, for example, which was prepared in cooperation with the Polish Academy of Sciences, has been published in seven volumes but under one number, on nearly 3,500 pages. The new series of *BSMRAe* is now edited at the Institute for Literary Studies.

In comparison, only a small number of other Latin texts were published in the other accredited text publication series of the Textological Committee. The most important one among these was the publication of the critical edition of Janus Pannonius' works: his epigrams in 2006, elegies in 2014, and epic poems in 2018 (without a commentary volume so far).⁸ The Latin writings of Francis II Rákóczi, Prince of Transylvania, were also published in several volumes back in the 1990s.⁹ Several volumes of

8 IANI PANNONII, *Opera quae manserunt omnia, Vol. I, Epigrammata, Fasc. 1: Textus*, eds. Iulius MAYER and Ladislaus TÖRÖK (Budapest: Balassi Kiadó, 2006); IANI PANNONII, *Opera quae manserunt omnia, Vol. II, Elegiae, Fasc. 1: Textus*, eds. Iulius MAYER and Ladislaus TÖRÖK (Budapest: Balassi Kiadó, 2014); IANI PANNONII, *Opera quae manserunt omnia, Vol. III, Carmina epica, Fasc. 1: Textus*, eds. Iulius MAYER, Ladislaus TÖRÖK, and Zaynab DALLOUL (Budapest: Balassi Kiadó, 2018).

9 II. RÁKÓCZI FERENC, *Politikai és erkölcsi végrendelete – Testament politique et moral*, eds. BORZSÁK István and KOVÁCS Ilona, trans. SZÁVAI Nándor and KOVÁCS Ilona, stud. KÖPECZI Béla, II. Rákóczi Ferenc művei 3 (Budapest: Akadémiai Kiadó, 1984); II. RÁKÓCZI FERENC, *Fohászai – Aspirationes – Aspirations*, eds. DÉRI Balázs, KOVÁCS Ilona, and HOPP Lajos, trans. CSÓKA Gáspár and DÉRI Balázs, stud. HOPP Lajos, KOVÁCS Ilona, and DÉRI Balázs, II. Rákóczi Ferenc művei 4 (Budapest: Akadémiai Kiadó–Balassi Kiadó, 1994); II. RÁKÓCZI FERENC, *Meditációi – Meditationes – Méditations*, eds. DÉRI Balázs, KOVÁCS Ilona, and TÜSKÉS Gábor, II. Rákóczi Ferenc művei 5 (Budapest: Balassi Kiadó, 1997).

Latin correspondence were published from 1988 in the series called *Commercia litteraria eruditorum Hungariae*, established by Andor Tarnai (1925–1994). Beside Hungarian and German texts, these included the letters that clerical and secular intellectuals from Hungary and Transylvania exchanged with each other and with foreign scholars in Latin.¹⁰

Naturally, even if the entirety of these texts is published in modern editions, it can only give a taste of Hungary's old Latin culture and literature. We are still very proud of them. It is a series of critical editions that has published reliable texts with a uniform structure, a scholarly apparatus, and extensive commentaries and explanations. We would have every reason to be satisfied if the objective had remained the same as the original goal of the Textological Committee, i.e. producing editions in print.

However, in the twenty-first century we cannot overlook the need for critical editions in an electronic form. The methods and technology used in Hungary until very recently were only partially suitable for this purpose. The problems and shortcomings can be illustrated with a single piece of data: on 1 May, 2014, only 54 items were available electronically to the public from the 484 volumes of critical text editions registered on the website of the Textological Committee; in other words, 89% of the critical text editions was available in paper edition only. Until June 2019, out of some seventy volumes of Latin texts published, only one was available on the internet. It was held in the Hungarian Electronic Library (Magyar Elektronikus Könyvtár, MEK), which is the largest Hungarian digital book collection and is meant to be representative.¹¹ Although 213 Latin or partly Latin pieces had been available by that time in this free public collection, the accidental and unsystematic composition of these should be the subject of a separate reflection. For example, Janus Pannonius' complete works could be read in Sándor V. Kovács' (1931–1986) supplementary but not critical edition of 1987, in which only the epigrams and the elegies were bilingual, while the so-called longer poems and prose works were only published in Hungarian translation. Furthermore, only the main text was kept during the digital processing, the bibliography and the notes were eliminated, without indicating this omission in any way.¹² The Hungarian websites were not rich in Neo-Latin texts in general, either. Although the website of the Hun-

10 BENKŐ József, *Levelezése* [Correspondence], eds. SZABÓ György and TARNAI Andor, stud. SZABÓ György, *Commercia litteraria eruditorum Hungariae – Magyarországi tudósok levelezése 1* (Budapest: Közgazdasági és Jogi Könyvkiadó–MTA Irodalomtudományi Intézet, 1988); BÉL Mátvás, *Levelezése* [Correspondence], eds. SZELESTEI N. László and GRÜLL Tibor, stud. SZELESTEI N. László, *Commercia litteraria eruditorum Hungariae – Magyarországi tudósok levelezése 3* (Budapest: Balassi Kiadó, 1993); KOLLÁR Ádám Ferenc, *Levelezése* [Correspondence], ed., stud. Soós István, *Commercia litteraria eruditorum Hungariae – Magyarországi tudósok levelezése 4* (Budapest: Universitas Könyvkiadó, 2000); WESZPRÉMI István, *Levelezése* [Correspondence], eds. SZELESTEI N. László and VIDA Tivadar, stud. SZELESTEI N. László, *Commercia litteraria eruditorum Hungariae – Magyarországi tudósok levelezése 6* (Budapest: Argumentum Kiadó, 2013).

11 See <https://mek.oszk.hu>.

12 JANUS PANNONIUS, *Összes munkái* [Complete works], ed., stud. V. Kovács Sándor (Budapest: Tankönyvkiadó, 1987).

garia Latina Hungarian Neo-Latin Society used to include a menu item called *Studia et textus*, it contained no more than seven epigrams by Janus Pannonius.¹³

It is true for both the entirety of the national cultural heritage and the Latin texts that creating a digital version for them and publishing them on the internet must be both a principal aim of national cultural policy and an essential disciplinary interest. Making the texts available and searchable is the only tool that can ensure equal cultural and scientific opportunities in the digital world of the twenty-first century. One of the most important challenges the Textological Committee and the Institute for Literary Studies have faced is managing the retrospective publication of the digitized versions of existing paper editions and making sure that the possibilities offered by digital technology are considered when new critical editions are published.

Of course, a digital version can be made of any printed edition, even retrospectively. In its simplest form, this is not more than a facsimile stored in a digital image format. The PDF file format has become the standard in the last two decades, and it is a more appropriate solution than a simple image format because two layers can be generated in it: a facsimile appears on the user's screen, beneath which there is a hidden character-format text layer where search operations can be performed. This text layer is usually produced automatically through optical character recognition, and it is not usually proofread, so its quality is not satisfactory. Nevertheless, it extends the user's possibilities in handling the text.

In the case of the books published during the last two decades, ideally there is no need to scan the facsimile or run character recognition. The PDF file can be produced from the publisher's file, which contains the layout of the book that preserves the final step of desktop editing before a book goes to print. A single-layer PDF file can be produced from this file, which stores the text in only character form, but its appearance, i.e. the layout, the formats applied, the lines, and the pages are identical to the printed book, and this text is suitable for search operations without concessions. The only volume of the *BSMRAe* series that was available digitally before 2019 was the critical edition of the Erasmist János Sylvester's *Grammatica Hungarolatina* from 1539, edited by István Bartók and published in 2006. It was converted into PDF on the basis of such a publisher's file and was stored in MEK thanks to the generosity of the Argumentum publishing house.¹⁴

However, the latest document that defines the fundamental principles of the scholarly edition of literary texts (accepted by the Textological Committee in 2004) calls electronic texts produced in this way "digitized editions" and clearly differentiates them from "digital" or "electronic" editions.¹⁵ This differentiation is absolutely justi-

13 See <http://neolatin.iti.mta.hu>. This website is still available today, although it has not been updated since 2006, and the society itself has ceased to exist as well.

14 Ioannes SYLVESTER, *Grammatica Hungarolatina*, ed., stud. Stephanus BARTÓK, *BSMRAe: Series nova*, 15 (Budapest: Akadémiai Kiadó–Argumentum Kiadó, 2006); cf. <https://mek.oszk.hu/05700/05725>.

15 [DEBRECZENI Attila and KECSKEMÉTI Gábor], "Alapelvek az irodalmi szövegek tudományos kiadásához" [Principles to scholarly editions of literary texts], *Irodalomtörténet* 85 (2004): 328–330. Online: <http://textologia.iti.mta.hu/alapelvek.pdf>.

fied, and we cannot aim for less today than producing truly digital critical editions. A digital edition is designed for the electronic medium from the very start and utilizes all the possibilities of this medium. No paper equivalent of a truly digital edition is conceivable – its “way of life,” its philosophy, its principles of handling the text are all designed exclusively for the electronic environment. It offers many more complex possibilities beyond the static reading of the body text and the accompanying notes. The electronic medium provides special dynamic functions for handling the text, such as queries based on any criterion or function to arrange or display the text in special ways. In order to open up the way for these features, the text must be structured in an organized fashion. The means to create such a structure is mark-up language, and the Textological Committee specifies that electronic critical editions should have an obligatory mark-up language structure.

A truly digital edition cannot be created through the mechanical conversion of a printed edition. Even in an optimal case, the layout files produced and preserved by the publishing house are close to inadequate for serving as a basis for a digital edition. The primary goal of the layout editor’s work goes against a clear structure of the text. Layout editors traditionally create a harmonious appearance through interventions that are carried out by breaking the structural unity of the text. If necessary, certain parts of the text receive unique direct formatting, and a smooth transition from line to line or from page to page is achieved by inserting “hard enter” characters or breaking up paragraphs, elements that belong together functionally are separated and processed differently, etc. Even if the file did have some functional structure before undergoing layout editing, this structure disappears from the layout file and the PDF file created. (The layout editor may break the functional connection between the location of the reference and the footnote, and such structural connections necessarily disappear from an inappropriately designed PDF file.)

Therefore, if the digital edition cannot be created by mechanically converting a paper edition that prioritizes appearance, how can a digital edition be created? Functional conversion is needed. This is a fairly extensive conversion, and there is considerable intellectual added value involved. This kind of conversion essentially means a transformation of the linear text into a structured database or expert system. It necessitates a content exploration and semantic analysis of the text and its apparatus, the result of which is recorded according to a chosen syntactic convention. The international discourse on the preparation and technical implementation of electronic text editions considers the syntactic conventions of the Text Encoding Initiative (TEI) most suitable for this task.¹⁶

16 Robin C. COVER and Peter M. W. ROBINSON, “Encoding Textual Criticism,” *Computers and the Humanities* 29 (1995): 123–136; C. Michael SPERBERG-McQUEEN, “Textual Criticism and the Text Encoding Initiative,” in *The Literary Text in the Digital Age*, ed. Richard J. FINNERAN, Editorial Theory and Literary Criticism, 37–62 (Ann Arbor: University of Michigan Press, 1996); M. J. DRISCOLL, “Levels of Transcription,” in *Electronic Textual Editing*, eds. Lou BURNARD, Katherine O’BRIEN O’KEEFFE, and John UNSWORTH, 254–261 (New York: Modern Language Association of America, 2006), http://www.tei-c.org/About/Archive_new/E TE/Preview/; Patrick DURUSAU, “Why and How to Document Your Markup

When it was decided in the summer of 2002 in Bonn that Budapest would organize the 13th world congress of the International Association for Neo-Latin Studies in 2006, as co-president of the Textological Committee at the time, I immediately proposed starting the retrospective digital processing of the *BSMRAe* and other Neo-Latin texts. In November 2002, the Institute for Literary Studies contacted the experts of the Neumann János Digital Library and Multimedia Centre, which at that time oversaw the activities of the national digital competence centre, and we signed a cooperation agreement on implementing the project in the spring of 2003. A list of the volumes selected for digitization was compiled, and two short texts were selected and processed as a technological test: Conradus Celtis' oration of Ingolstadt from 1492 and Miklós Istvánffy's *Carmina* collection.¹⁷ We also proofread these texts. We chose the syntactic recommendations of TEI as a technological starting point and created DTDs suitable for our project from the SGML versions of the recommendations. Several graphic design workshops created draft images for the visualisation of the *Neolatina Hungarica* website. Some of the preserved visualisations of these are presented in Figures 1–6. Throughout 2003, we hoped that we would be able to secure financial resources for the work, we even contacted Hungary's Prime Minister with our request. This time period was not only a period of planning the Neo-Latin critical editions, it also brought on a veritable heyday in Hungarian Neo-Latin research.¹⁸ This is when the Institute for Literary Studies and the Hungarian Neo-Latin Society launched its yearbook *Camænæ*

Choices,” in BURNARD, O'BRIEN O'KEEFFE, and UNSWORTH, *Electronic Textual Editing*, 299–309; John LAVAGNINO, “When Not to Use TEI,” in BURNARD, O'BRIEN O'KEEFFE, and UNSWORTH, *Electronic Textual Editing*, 334–338; Brett BARNEY, “Digital Editing with the TEI Yesterday, Today, and Tomorrow,” *Textual Cultures: Texts, Contexts, Interpretation* 7, no. 1 (2012): 29–41. In Hungarian: Kiss Katalin, “Variánskiadások előkészítése TEI/XML-alapokon (Szabó Lőrinc: *Föld, Erdő, Isten*)” [Preparing variant editions on a TEI/XML basis (Lőrinc Szabó: *Earth, Forest, God*)], in „*Szabad ötletek...*” *Szöke György tiszteletére barátaitól és tanítványaitól* [“Free ideas...” In honor of György Szöke, from his friends and students], eds. KABDEBŐ Lóránt, RUTTKAY Helga, and SZABÓNÉ HUSZÁRIK Mária, 270–280 (Miskolc: Miskolci Egyetem BTK Irodalomtudományi Doktori Iskola–Szabó Lőrinc Kutatóhely, [2005]); ZSOLDOS-DEMJÉN Anetta, “Digitális szövegrögzítés TEI irányelvek alapján” [Digital text encoding according to the principles of TEI], in KECSKEMÉTI and TASI, *Filológia és textológia...*, 491–503.

- 17 Conradus CELTIS PROTUCIUS, *Oratio in gymnasio in Ingelstadio publice recitata. Cum carminibus ad orationem pertinentibus*, ed. Iohannes RUPPRICH, BSMRAe: Saecula XV–XVI (Leipzig: B. G. Teubner, 1932); Nicolaus ISTVÁNFY, *Carmina*, eds. Iosephus HOLUB and Ladislaus JUHÁSZ, BSMRAe: Saecula XVI–XVII (Leipzig: B. G. Teubner, 1935).
- 18 László HAVAS, “Ricerche sulla letteratura mediolatina e neolatina in Ungheria nella seconda metà del secolo XX e alle soglie del nuovo millennio: Dai centri di ricerca ai programmi nazionali e alle collaborazioni in progetti internazionali,” *Camænæ Hungaricæ* 2 (2005): 127–142; HAVAS László, “A magyarországi neolatin kutatások helyzete: eredmények, hiányosságok, távlatok” [Neo-Latin studies in Hungary: results, shortcomings, perspectives], in *Humanista történetírás és neolatin irodalom a 15–18. századi Magyarországon* [Humanist historiography and Neo-Latin literature in fifteenth–eighteenth-century Hungary], eds. BÉKÉS Enikő, KASZA Péter, and LENGYEL Réka, *Convivia neolatina Hungarica* 1, 9–16 (Budapest: MTA BTK Irodalomtudományi Intézet, 2015).

tional Széchényi Library. Thus, the planned *Neolatina Hungarica* website was never launched, and the process of digitization stopped. In 2006, we successfully organized the Neo-Latin world congress in Budapest, which met with universal recognition.²⁰ Every participant of the congress received the first three volumes of *Camænae Hungaricæ* (2004–2006) as a gift. Three more issues of the Neo-Latin yearbook were subsequently published (including a combined year), but after 2010 its publication was not feasible any more. Saddest of all, the goal of making the Latin culture of Hungary available on a content-rich website was not accomplished, either.

This is how it came to be that by the beginning of the 2010s, the richest selection of Neo-Latin texts published in Hungary could be found on a non-Hungarian server. Launched by Neven Jovanović in 2009, the homepage called *Croatiae auctores Latini* (*CroALa*) uses several of the above-mentioned text editions in its collection, which currently holds 449 documents from 181 authors from Croatia.²¹ László Juhász' 1933 booklet was taken as the basis for publishing *Epithalamium* by Matthaëus Andronicus Tragurinus (Matej Andreis) from 1502.²² Only one *carmen* from the oeuvre of Valentinus Cybeleius Varasdiensis (Valentin Cibel or Hagymási Bálint) is published on the Croatian website. The basis for the Latin text is Mária Révész's edition from 1939, although the editors did not use this edition directly but worked on the basis of the Latin text of a Latin–Hungarian bilingual humanism anthology published in 1998.²³ The shortened edition of *Historia verissima* by Stephanus Brodericus (Stjepan Brodarić or Brodarics István) also originates from this volume, which was published by the editors of the Hungarian anthology based on Péter Kulcsár's (1934–2013) 1985 edition, the sixth volume of the new *BSMRAe* series. However, the Croatian editors, for unknown reasons, attribute it to Arnold Ipolyi (1823–1886).²⁴ The basis for the publication of the Brodericus letters was mostly József Bessenyei's (1949–2023) collection from 2002, which is accessible in MEK.²⁵ However, when the freshly issued 16th volume of *BSMRAe* became

20 Rhoda SCHNUR, general ed., Joaquin PASCUAL BAREA et al., eds., *Acta conventus neo-Latini Budapestensis: Proceedings of the Thirteenth International Congress of Neo-Latin Studies, Budapest, 6–12 August 2006*, Medieval and Renaissance Texts and Studies 386 (Tempe, AZ: Arizona Center for Medieval and Renaissance Studies, 2010).

21 See <http://www.ffzg.unizg.hr/klafil/croala>.

22 Matthaëus ANDRONICUS [ANDREIS] TRAGURINUS, *Epithalamium in nuptias Vladislai Pannoniarum ac Boemiae regis et Annae Candaliae reginae (1502)*, ed. Ladislaus JUHÁSZ, *BSMRAe: Saecula XV–XVI* (Leipzig: B. G. Teubner, 1933); cf. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.108>.

23 Valentinus CYBELEIUS VARASDIENSIS [HAGYMÁSI], *Opera (Carmina et Opusculum de laudibus et vituperio vini et aquae)*, ed. Maria RÉVÉSZ, *BSMRAe: Saeculum XVI* (Budapest: K. M. Egyetemi Nyomda, 1939); ÁCS Pál, JANKOVICS József, and KŐSZEGHY Péter, eds., *Régi magyar irodalmi szöveggyűjtemény*, vol. 1, *Humanizmus* [Anthology of old Hungarian literature, I, Humanism] (Budapest: Balassi Kiadó, 1998), 485–491; cf. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.120>.

24 Stephanus BRODERICUS [BRODARICS], *De conflictu Hungarorum cum Solymano Turcarum imperatore ad Mohach historia verissima – Oratio ad Adrianum VI. pontificem maximum*, eds. Petrus KULCSÁR and Csaba CSAPODI, *BSMRAe: Series nova*, 6 (Budapest: Akadémiai Kiadó, 1985); ÁCS, JANKOVICS, and KŐSZEGHY, *Régi magyar irodalmi...*, 427–446; cf. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.195>.

25 See <https://mek.oszk.hu/02200/02208>; <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/search3t?db-name=croala&author=Brodari%C4%87,+Stjepan>.

accessible to the editors, they also incorporated the texts available there.²⁶ A few prose works of Janus Pannonius (Jan Panonije) are also published on the Croatian website based on the text of the Latin–Hungarian anthology,²⁷ although in the case of his other letters, the editors had to go back to the Teleki edition from 1784.²⁸ The Latin text of the epigrams and elegies was first edited in 2011 on the basis of the Sándor V. Kovács volume published in MEK, although the editors made corrections in it in 2012 in light of the above-mentioned new critical edition.²⁹ Only very few of the works of Iohannes Vitéz de Zredna (Ivan Vitez od Sredne or Vitéz János) can be found on the Croatian website, and there is no evidence that Iván Boronkai’s (1933–1995) 1980 critical edition was used:³⁰ the text is published according to György Fejér’s (1776–1851) *Codex diplomaticus*.³¹ The editors have not utilized the critical edition of two works of Antonius Wranicius Sibenicensis Dalmata (Antun Vrančić or Verancsics Antal) either, which were published by Kálmán Eperjessy in 1944;³² these texts are not included in the database. The *Memoriale* of 1532 based on József Bessenyei’s text has been uploaded, as have many letters, the source of which in most cases is László Szalay’s (1813–1864) edition.³³

The layout and technological background of the Croatian website only deserves praise. The syntactic recommendations of TEI, which have since changed to XML-based ones, seem to be the most widely accepted technological choice today in projects that aim to digitally process large volumes of texts. The XML files can simultaneously ensure dynamically generated content during the query, a support of advanced query options in the functionally formed field structure, flexibility in visual arrangement and formatting, and the long-term conservation and optional future conversion of the text database organized on a semantic basis. It is an extremely smart solution to match this all with the PhiloLogic information handling system developed in Chicago, which provides easy parameter and maintenance options.³⁴ The selected technological solu-

26 Stephanus BRODERICUS, *Epistulae*, ed., stud. Petrus KASZA, BSMRAe: Series nova, 16 [recte: 18] (Budapest: Argumentum Kiadó–Magyar Országos Levéltár, 2012); cf. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.112>.

27 ÁCS, JANKOVICS, and KŐSZEGHY, *Régi magyar irodalmi...*, 166–183; cf. <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/search3t?dbname=croala&author=Jan+Panonije>.

28 See <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.53>. The Teleki edition has been printed in facsimile: IANI PANNONII, *Poëmata, Utrecht, 1784*, stud. MAYER Gyula, 2 vols. (Budapest: Balassi Kiadó, 2002).

29 See <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/navigate.pl?croala.34>.

30 Iohannes VITÉZ DE ZREDNA, *Opera quae supersunt*, ed. Iván BORONKAI, BSMRAe: Series nova, 3 (Budapest: Akadémiai Kiadó, 1980).

31 See <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/search3t?dbname=croala&author=Vitez+od+Sredne,+Ivan>.

32 Antonius WRANCIUS [VERANCICS] SIBENICENSIS DALMATA, *Expeditionis Solymani in Moldaviam et Transsylvaniam libri duo; De situ Transsylvaniae, Moldaviae et Transalpiniae liber tertius*, ed. Colomannus EPERJESSY, BSMRAe: Saeculum XVI (Budapest: K. M. Egyetemi Nyomda, 1944).

33 See <http://www.ffzg.unizg.hr/klafil/croala/cgi-bin/search3t?dbname=croala&author=Vran%C4%8Di%C4%87,+Antun>.

34 Neven JOVANOVIĆ, “CroALa: Enhancing a TEI-encoded Text Collection,” *Journal of the Text Encoding Initiative* 2 (2012): 1–8, doi:10.4000/jtei.425.

tions can serve as a basis for international cooperation, enabling foreign professionals to join the edition of texts and the development of the website.³⁵

Following an exceptionally promising start, however, the development of the Zagreb Neo-Latin website ground to a halt due to reasons and circumstances unknown to me. Looking back at it after a decade, it seems that no new texts have been added since the spring of 2014, and no technological modernisation has taken place, either.

At the same time, by the middle of the 2010s, it was high time for Hungarian researchers of Neo-Latin literature to publish the important Latin texts of the national cultural heritage on a website that was as rich and up-to-date as the one created by the researchers of Croatian and Dalmatian Latin literature. However, we have learned two important lessons from the results of our fellow Croatian researchers. First, we need to select the print editions that provide the basis of digital publishing with exceptional care. If we have reliable critical editions, we must use them as the basis of high-quality digital publishing. Based on my experiences using *CroALA*, this is mostly the case for the Croatian website, although in some of the cases mentioned above, Hungarian philological work has already developed a more up-to-date, more precise text than the one currently available in their database. The other essential commitment we had when planning the retrospective digitization of the volumes was that we did not plan to only present the main text of the publications and leave the philological and explanatory apparatus out. As far as I can tell, the Croatian database concentrates on publishing the texts themselves, and the notes are not processed even where they are available, as the basis for processing was a critical edition that does contain notes. In my opinion, the real strength of the TEI syntax lies in the possibility to code the critical and interpretational apparatus together with the main text. Dynamic text generation done in real time opens the way to also document text history, variants, and interpretations, which can be easily and freely visualised functionally with the help of colours, pop-ups, and typographic tools thanks to CSS, PHP, JavaScript, and other technologies.

During the past decade, the Institute for Literary Studies in Budapest, which I have headed since 2013, has again been able to do much to realize the above-described goals, certainly being in the position to do the most out of all the Hungarian institutions. We have made substantial progress in three areas.

1. The Institute for Literary Studies has set up a website of textology to publish the critical editions that have already been published in print. It is a free, public online service that presents a corpus that has been created with academic quality assurance, and it is available for institutes of public education, higher education, public and private in-

35 This cooperation started when the University of Zagreb organized a Croatian–Hungarian international conference in Zagreb between 21–23 November, 2012, with the title *Staro i novo: paralele i dodiri u hrvatskoj i mađarskoj renesansi – Régi és új: párhuzamok és érintkezések a horvát és a magyar reneszánszban – Vetera et nova: similia et attingentia aetate renatarum litterarum in Croatia et Hungaria – The Old and the New: Similarities and Contacts in Croatian and Hungarian Renaissance*, with support from the Hungarian Studies Department and Institute of Classical Philology at the University of Zagreb, the Ministry of Foreign Affairs of Hungary and its Embassy in Zagreb, the Balassi Institute, and the Hungarian national minority council of the City of Zagreb.

stitutions, as well as the interested general public. The textological website of the Institute for Literary Studies was launched in June 2019 under the title *Critical editions of national classics*,³⁶ accomplishing the first step in the electronic processing of critical editions in the form of publishing searchable facsimiles. The volumes are published as two-layer PDF files, i.e. the reader encounters facsimiles that correspond to the original editions, and in which full-text search operations can also be carried out. 364 volumes are currently available, containing over 241,000 text pages. The collection is continuously growing. The readers of the portal can carry out searches that can specify any word or expression in the volumes, beyond the metadata of the individual volumes (author, title, time period, editors, etc.). The results list contains facsimiles of the pages where the given words or expressions appear together. Readers who also wish to have a copy of complete volumes of the critical editions on their computer can also download the PDF files volume by volume, without limitation. Launching the portal has brought a dramatic change in online access to the results of Hungarian textology: instead of the 11% that had to be ferreted together from various sources before, the volumes published in one place here already make up 72% of all Hungarian critical editions.³⁷ In the case of *BSMRAe*, the coverage is close to 100%: both the old volumes edited by László Juhász and the volumes of the *nova series* can almost all be found on the website. The volumes of *Commerciam litterariam eruditorum Hungariae* and the already edited works of Francis II Rákóczi are also available here.³⁸

2. Of course, making the digitized, searchable facsimiles available is only the first step. The Institute for Literary Studies has also started to publish truly digital, semantic web-based critical editions. It has built a separate platform to house these, the philological portal of Hungarian literary studies called *DigiPhil*.³⁹ The editions undergo semantic processing and are integrated into a database following a set of markup elements created according to TEI syntax. Through this data enrichment, the texts meet the needs of online search, organization, display, archiving, version control, aggrega-

36 Available: <https://szovegtar.iti.mta.hu>.

37 Since then, work has started on transferring all the volumes published on the website to the MEK collection as well.

38 See <https://szovegtar.iti.mta.hu/hu/sorozatok/bsmrae>; <https://szovegtar.iti.mta.hu/hu/sorozatok/magyarorszagitudosoklevelezese>; <https://szovegtar.iti.mta.hu/hu/szerzok/xn---rkcziferenc4db5y>.

39 Available: <https://digiphil.hu>. On the project: PALKÓ Gábor, "Mit jelent a digitális filológia a szemantikus web korában? A *DigiPhil* projektről" [What does digital philology mean in the age of the semantic web? On the *DigiPhil* project], *Magyar Tudomány* 177, no. 11 (2016): 1316–1322. On the various corpora of the portal: ZSÓFIA FELLEGI, "Digital Philology on the Semantic Web: Publishing Hungarian Avant-garde Magazines," in *The (Web)Sites of Memory: Cultural Heritage in the Digital Age*, eds. Donald E. MORSE, ZSÓFIA O. RÉTI, and MIKLÓS TAKÁCS, *Loci memoriae Hungaricae* 8, 105–116 (Debrecen: Debreceni Egyetemi Kiadó, 2018); FELLEGI Zsófia, "Átmenet az analógból a digitális filológiába: médiumváltás? Madách Imre: *Az ember tragédiája*. Szinoptikus kritikai kiadás" [A transition from analog to digital philology: a change of medium? Imre Madách: *The Tragedy of Man*. A synoptic critical edition], *Helikon* 67 (2021): 84–102; FELLEGI Zsófia and PALKÓ Gábor, "Arany-kéziratok és kritikai kiadások közzététele az Arany János Emlékévben" [Publishing Arany manuscripts and critical editions in the János Arany Memorial Year], *Helikon* 66 (2020): 82–98.

tion etc. at the highest level. When a text is opened, its critical apparatus and bibliographic data is displayed. *DigiPhil* creates the opportunity to read and compare text sources side by side, in parallel with each other, highlighting the textological differences with the help of dramatic visualisation. Any text source can be set to appear on either the left or the right side of the split screen: the transcript of a manuscript or print, or the main text of the critical edition. We have also created a viewer that shows all the text variants simultaneously, indicating their origin and specificities with the help of typographical differences, with notations that are commonly used in genetic critical editions, which code into a visual image how the text was created. This display mode also exists in a simplified version. A print preview can also be requested, which takes into consideration the options of greyscale printing and uses various typographical notations instead of colour-coding. All this goes well beyond the possibilities presented by PDF facsimiles. *DigiPhil* is overseen by an Advisory Board, which decides on a case-by-case basis which scientific critical editions, source editions, bibliographies, and research databases indicate a level of maturity in terms of content and quality of markup, i.e. the professional quality that allows them to be published on the website. As a result of its selectiveness, the website only has a limited number of texts for now. Without support from the central cultural policies and additional financing, it will continue to grow slowly, using the Institute for Literary Studies' own resources. However, this certainly represents the top quality in technology and the future in textology. From the Hungarian Neo-Latin texts, only a digital version of Péter Kulcsár's critical edition of Petrus Ransanus' historical work *Epithoma rerum Hungararum* (1489–1490) is available here so far (since 2021),⁴⁰ although work on several other volumes has already progressed to the point that they will be available to the public shortly.

3. Based on our experience in digital textology, we can draw one more significant conclusion, which does not relate to retrospective digitization but to the development of the information technology background of the textological works that are underway. The technology necessary to produce digital text editions must be present in the text management practice of the specialists who work on the research from the start.⁴¹ Such an undertaking cannot limit this kind of professionalism to the publishing phase,

40 Petrus RANSANUS [RANSANO], *Epithoma rerum Hungararum, id est Annalium omnium temporum liber primus et sexagesimus*, ed. Petrus KULCSÁR, BSMRAe: Series nova, 2 (Budapest: Akadémiai Kiadó, 1977).

41 A great number of significant publications already discuss the full technological process of electronic textual editing. Just a few examples: FINNERAN, *Literary Text...*; Kathryn SUTHERLAND, ed., *Electronic Text: Investigations in Method and History* (Oxford: Clarendon Press, 1997); BURNARD, O'BRIEN O'KEEFE, and UNSWORTH, *Electronic Textual Editing*; Marilyn DEEGAN and Kathryn SUTHERLAND, eds., *Text Editing, Print and the Digital World*, Digital Research in the Arts and Humanities (Farnham, UK–Burlington, VT: Ashgate, 2009); Ray SIEMENS and Susan SCHREIBMAN, eds., *A Companion to Digital Literary Studies*, Blackwell Companions to Literature and Culture (Chichester etc.: Wiley–Blackwell, 2013); Péter DÁVIDHÁZI, ed., *New Publication Cultures in the Humanities: Exploring the Paradigm Shift* (Amsterdam: Amsterdam University Press, 2014), <http://www.oapen.org/search?identifier=515678>; and the articles in the special issue *Historical Perspectives on Digital Editing* of the periodical *Textual Cultures* (vol. 7, no. 1, 2012), especially Amy E. EARHART, "The Digital Edition and the Digital Humanities," *Textual Cultures: Texts, Contexts, Interpretation* 7, no. 1 (2012): 18–28.

and already the research stage of a critical edition must be well-organised electronically. The Institute for Literary Studies consistently strives to make sure that instead of using general word processing software, professional programmes are widely used that can meet the word processing needs of philological-textological work and have been developed for this particular purpose, and that the digital word processing competence of the colleagues working on the editions should increase accordingly. Concerning the critical editions in progress at the Institute, we are already thinking in terms of process engineering and management in every case, which includes the following tasks and phases: establishing a pool of textology experts and creating a research environment for them (specifying for the needs of processing the given author, including the generic and textual characteristics of the sources); publishing the literary studies research data on the semantic web and linking them to international projects, setting up a WikiBase (WikiData) system, developing a specification for the prosopographical data; updating the archiving environment (GitHub); ensuring long-term storage (CERN Zenodo); workflow management (Kanban), etc. A well-established undertaking aiming to publish critical editions cannot exist any more without commissioning a unique or at least highly tailored text entry interface, in other words, without purchasing programming work, including the training and consultation that makes it possible for colleagues to make standardised technological decisions. Such a text entry application can be integrated into the database management system that records the metadata of the texts. In an optimal case, the corpus, even when it is created on isolated computers, is archived and mirrored on the central computer server, and it is continuously available to all the researchers participating in the project. All this provides meaningful assistance for a reliable overview of the material already during the research phase, while in the publication phase it makes it possible to create a wide range of outputs from the same material, from a printed book to an indexed electronic database. A further challenge is to make sure that the main text and apparatus of an edition that is produced for a particular purpose be created with well-organized extraction from the databases that are used in the research phase, synthesized there in markup structures, through a flawless series of conversion operations, at this point already cooperating with the publishing house at a high level of technological expertise.⁴² During the last few years, two volumes of Miklós Oláh's correspondence edition have already been prepared in this way, in a high-quality IT research environment,⁴³ which will also be available on the *DigiPhil* website shortly. The historical work of Johannes Michael Brutus and the correspondence of Nicasius Ellebodius are also under preparation for the *BSMRAe* series with the same IT support, and the *DigiPhil* website already lists these as "available soon."

42 Gábor KECSKEMÉTI, "Electronic Textual Criticism: A Challenge to the Editor and to the Publisher," in DÁVIDHÁZI, *New Publication Cultures...*, 91–98.

43 Nicolaus OLAHUS, *Epistulae, Pars I, 1523–1533*, ed., stud. Emőke Rita SZILÁGYI, *BSMRAe: Series nova*, 19/1 (Budapest: Reciti Kiadó, 2018), http://reciti.hu/wp-content/uploads/Olah_Epistulae_I.pdf; Nicolaus OLAHUS, *Epistulae, Pars II, 1534–1553*, ed., stud. Emőke Rita SZILÁGYI, *BSMRAe: Series nova*, 19/2 (Budapest: Reciti Kiadó, 2022), https://www.reciti.hu/wp-content/uploads/olahus2_vn.pdf.

Thus, the digital developments of the early 2000s seem to be yielding results fifteen years later, as they are being harmonized with the system developments that are taking place in philology and textology within Hungarian literary studies, in a way that international Neo-Latin research projects can make the most of them as well. Another boom in Hungarian Neo-Latin research is occurring in the first half of the 2020s. One welcome sign of this is the relaunching of the *Camœnæ Hungaricæ* yearbook in 2023.