

## Digital methods for revisiting twentieth-century magazines of ideas and culture

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Considering magazines of ideas and culture are fundamental sources for the history of the first half of the twentieth century, we propose a discussion of the use of digital and quantitative methods to broaden knowledge on these historical objects, and bring to light new insights and understanding of the source material, taking into account the aspects that make magazines a particularly complex object of study. After briefly examining the advantages and feasibility of studying magazines using non-traditional historiographical methodologies, we explore how the use of aggregated information can provide visual and comprehensive information not only on the history of specific periodicals but also on their contents. Using various statistical procedures applied to data on the reception of foreign authors and works we try to bring forward aspects of cultural transfer present in these magazines. For this end, we use information gathered by the Seminário Livre de História das Ideias (History of Ideas Free Seminar) research group for the *Revistas de Ideias e Cultura* (Magazines of Ideas and Culture) project, illustrating our argument with data from *A Águia*, a republican magazine published in Portugal from 1910 to 1932.

**Keywords:** Magazines of Ideas and Culture, digital methods, quantitative analysis of qualitative data, reception of foreign authors

### Magazines as a fundamental source for cultural history and history of ideas

During the twentieth century, magazines played a vital role in the circulation of ideas, in the transformation of mentalities, and in the definition of modern tastes and sensibilities, not only in Europe but throughout the world.

In Portugal, as in several other countries, magazines represented the core of cultural life. They were the first and most relevant medium for the dissemination and discussion of ideas and thought. On their pages the reader would find the

latest polemics concerning every aspect of cultural life, discussions about current national and international events, the latest trends in fashion, or critiques of bold avant-garde aesthetic movements. It was in magazines that the most irreverent manifests were published, where noteworthy artistic movements came to light, doctrinarian orientations voiced, currents of thought and opinion were born, and tastes gained shape. It was through magazines that culture spread, in an unprecedented movement, beyond the confines of national languages and boundaries, bringing with them images and words from other cultural realities. In this sense, magazines diluted borders and narrowed geographical and cultural distances.

More than books, magazines were the forum where political indoctrination, literary movements, and philosophical, political, pedagogical, historical, or sociological schools of thought were brought to light. The work of nearly all outstanding intellectuals, writers, philosophers, and poets was first and foremost published in these magazines; in fact, they not only wrote for them but were often also their founders, directors, and editors.<sup>1</sup> The frequency with which the main body of work of renowned authors from this period consists of collections of articles published in periodicals is very significant.<sup>2</sup>

In general, the most meaningful political, artistic, and civic movements were developed around magazines; they represented their true collective voice, a place for original programmes to be made public, for forging strong bonds with readers, in accordance with the rhythmic tempo of their periodicity.

Magazines were successful as the leading means for communicating their own contemporaneity due to a number of particularly pressing factors, the first of which was the general increase in literacy of populations, especially in urban contexts, which exponentially expanded the number of potential readers. In addition, magazines were at the very front of state-of-the-art printed media, displaying a high capacity for seduction leveraged on the association of image with text; illustration was an important element in these magazines, as was often highlighted in the subtitles. As such, their history is strongly correlated with innovations in the fields of both graphic arts and photography and photojournalism. Technical

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1. We find multiple examples of this in Portugal. Eça de Queirós founded and directed the magazine *Revista de Portugal* (1889–1892); Fernando Pessoa founded *Orpheu* (1915) and *Athena* (1924–25) and, despite being the most celebrated twentieth-century Portuguese writer, his only published book appeared in the last year of his life, while all of his other previous writings to see print were published in magazines; the founders and directors of *A Águia*, discussed below, were the foremost poets, novelists, and thinkers of their generation.

2. “Many of the books published in [the first decades of the twentieth century] are simply a collection of texts which the authors occasionally or regularly contributed to newspapers and other periodical publications.” (Ramos 2001: 471) Authors’ translation.

advances in the printing process of images were quickly implemented, and the reproduction of renowned artists' works became a common occurrence in these periodicals, often alongside pictures illustrating new trends in fashion, or other images related to the preferred subject matter of each particular publication (Jeune 1990: 457–58).<sup>3</sup> For many readers, magazines were the means through which the world was first revealed to them – their fascination perhaps only comparable and second to the appearance of moving pictures.<sup>4</sup>

In a period when the idea of progress held considerable sway, magazines became the creators and heralds of novelty, with horizons that ranged from the famous personalities of mass culture to the popularization of science and social prophylaxis. The ability to perceive the meaning of contemporaneity – to review it beyond the raw immediacy of newspapers – proved to be one of their main attributes. Since ideas and their capacity to transform the world and people's lives were valued, magazines emerged as the place where new currents of doctrine and artistic sensibility were shaped, as the invaluable mouthpiece of intellectuals for communicating with their audience.

Just as periodical publications varied widely in content, so too did the public they were aimed at. Magazines were able to stimulate many different interests and motivations, which were promoted to capture and retain the loyalty of readers, who eagerly awaited the arrival of every new issue – sometimes with a collector's mind-set.

Diversity was clearly one of the main characteristics of magazines. These periodicals could be dedicated to every aspect of life, from literature to sports, from politics to science, and so on; the public they targeted could range from housewives to poets, from children to factory workers; their periodicity could be monthly, weekly, trimonthly, annual, or even irregular; and their format could extend from the very minimalistic or small format to the very bold, large, or colourful. This variety does not, however, compromise their distinctive character and the clear delimitation of the object. The effort to identify common denominators within this profusion of magazines calls for a precise definition of shared traits, as

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3. A description of the most important image and illustration-related printing press advances can be found in Melot (1990) and Renoult (1991).

4. The prospectus for *Life* magazine, an iconic periodical dedicated to photojournalism that was first published in 1936, states that its goal is to provide a way for their readers “to see life; to see the world; to eyewitness great events; to watch the faces of the poor and the gestures of the proud; to see strange things – machines, armies, multitudes, shadows in the jungle and on the moon; to see man's work – his paintings, towers and discoveries; to see things thousands of miles away, things hidden behind walls and within rooms, things dangerous to come to; the women men love and many children; to see and take pleasure in seeing; to see and be amazed; to see and be instructed”.

well as the enunciation of those unique elements that distinguish them from other printed publications, namely newspapers, other periodicals, and books.

Magazines are usually composed of a variable number of articles or other textual pieces (poems, literary pieces, reviews, etc.) authored by a group of writers, editors, and artists. Even though, in this sense, an article can be viewed as the most cohesive unit or part of the publication, a common thread – subject, genre, etc. – usually binds the whole together, not the least for its thematic appeal to specific reader segments.

Although information and opinion can be found in both newspapers and magazines, they each follow different constraints, given that their rhythms and relationships with time are different, as are the ways in which their object is approached. In a magazine article, current events and the news are not used as an end in themselves, but rather as the object of the author's thought, necessarily including an implicit claim to an opinion. The magazine article presents the reader with a view; the newspaper article brings the reader an account of the moment. It is not surprising, then, that their periodicity is also different, and that the latter tend to adopt a more expeditious pace while the former prefer a slower cadence. As George Sorel wrote in 1907, “les journaux font du journalisme; les revues font de la culture; il ne faut pas se laisser aller à confondre les rôles” (George Sorel quoted in Julliard 1987: 3).

Writing a magazine article is also not the same as writing a book; one and the other have distinct usages and respond to different reader expectations. Magazines were not only the fastest way of circulating ideas but also an arena for authors to develop their thought and to express restlessness, in permanent dialogue with their times.<sup>5</sup> This often resulted in a complex network of discussion and debate, built on a back and forth movement of arguments stretching over extended periods of time. As Jacques Julliard wrote, “l'article de revue au contraire [du livre] est nécessairement la confrontation d'un homme avec d'autres hommes, d'un penseur avec son temps” (Julliard 1987: 3).

Further evidence of the importance of these publications in Portuguese cultural life can be found in the number of literary magazines published since 1900. Considering only literary periodicals (i.e., excluding all newspapers and other types of periodicals), the number of new titles published between 1900 and 1910 was 275, an average of 25 per year; between 1911 and 1926 483 new titles were published, around 30 per year; and due to state censorship that was active during the 48 years of the Estado Novo dictatorship, the number of new titles dropped

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5. In 1894, Léon Blum wrote, in *La Revue Blanche*, “les revues ne sont pas des livres. Il ne serait pas juste de reprocher à un article de revue sa facture trop rapide et trop légère. Il n'y a pas de caractère d'éternité. Ce n'est pas la pensée sous sa forme définitive” (Quoted in Leymarie 2002: 9).

significantly between 1926 and 1974, to an overall total of 439, corresponding to an average of 9 new titles per year (Andrade 2009: 32).

In this light, it becomes clear that magazines were – at least until the rise of audio-visual communication technology – the means *par excellence* of cultural production, transmission, and reception, both in its more general and diffuse expression of transformation of mentalities and customs, and also in more elaborate reflective, literary, artistic, or scientific idioms.

The decisive role of magazines in the cultural transformations of the twentieth century was a simultaneously cosmopolitan, national, and local phenomenon; public spaces created by these periodicals resulted from the interception of those three vectors. The high degree of communication between them is irrefutable when we look at the best-selling editorial paradigms that received worldwide distribution and popularity; echoes of these magazines can be found all over national- and local-level publications, who very frequently reference, quote, and copy their authors and articles. In line with this, it is interesting to note that magazines almost always quote other magazines more frequently than any other type of publication. In *A Águia*, for example, we find that the most quoted title is the French magazine *Mercur de France*, a periodical with considerable longevity that was published from 1890 to 1940 (Charle 2004: 179).

The local, national, and international cultural exchange that took place in these magazines brings to light fundamental aspects of cultural transfer (Espagne 2013). The circulation of ideas and concepts is a key element of magazines of ideas and culture, one that is inextricable from the very nature of the source.

Acknowledging the importance of magazines as fundamental sources for cultural history highlights the relevance of finding methods and instruments to approach them as historical objects. Consequently, we argue that the use of aggregated data constitutes a valuable instrument for a better understanding of their content and history.

## **Comprehensive analysis of discourses using aggregated data**

The fact that magazines represent the foremost modality for cultural production and circulation in the twentieth century raises a number of particular problems for any historiographical attempts at examining them, which are only now beginning to be solved.

As with other studies that involve large sets of information, digital methods provide reliable means for addressing numerous, extensive, and complex sources.

The sheer number of different published titles, the length of their successive issues, the amount of corresponding authors, and the variety of genres and tones

are all factors that have made it difficult to fully grasp these magazines' universe. This may be the reason for the near inexistence of Portuguese cultural history and history of ideas studies about the magazine as a crucial editorial modality, and why their study is often consigned to disciplinary fragments or monographic reflections on specific titles that are deemed particularly relevant, for one reason or another.<sup>6</sup>

Digital methods greatly broaden the range of possibilities for the study of magazines, notably in three aspects: first, the digital edition of the full collections of these publications gives readers the opportunity for universal access to primary sources of cultural history, something that is often impossible even for institutions of reference; second, the systematic mapping of each of these collections' contents can result in exhaustive and uniform databases; third, the quantitative analysis of the qualitative data thus obtained unfolds new hermeneutical and heuristic perspectives by eliciting and enabling interpretative problems that are otherwise difficult to formulate.

A general methodology founded on a multidisciplinary approach to sources is therefore necessary. For almost two decades now, the Seminário Livre de História das Ideias (History of Ideas Free Seminar) research group has been working on building a comprehensive and extensive database of the most significant twentieth-century Portuguese magazines of ideas and culture. From its very beginning, their *Revistas de Ideias e Cultura* (Magazines of Ideas and Culture) project has sought to articulate different disciplines, encompassing knowledge from the fields of history of ideas, library science, and information science. The resulting ever-expanding relational database contains exhaustive information on authorship, quoted names and works, subjects, concepts, and geographical names, for all articles contained in these publications.

This information structure describes the magazine, the individual issues, and the respective articles with all appropriate bibliographical elements, in accordance with best practices in library sciences. The articles are, however, the nucleus of all data collected – in the database all of the remaining information describes or in some way refers to the article table.

It's important to note that, for the purpose of the project, any autonomous and circumscribable printed piece, whether it is an essay, a poem, an aphorism, an image, a short story, etc. is considered an article.

Thus, researchers collect all bibliographical information (title, authors, notes, etc.), and all appropriate descriptors – single or collective authors, concepts, subjects, single and collective quoted names, quoted works, and quoted geographical names for each article. All ensuing metadata is gathered in individual tables, which are then linked to one another through the article index.

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6. With notable few exceptions, such as *Revistas Literárias do Século XX em Portugal* (Rocha 1985) and *Dicionário da Imprensa Periódica Literária Portuguesa do Século XX* (Pires 1996).

With these tables containing all the descriptors from all the magazines, conducting cross-referencing queries between titles becomes a fairly simple procedure.

The connection between names and articles can take on different forms, as each individual can feature as the author of an article, as a quoted name in an article, or as the author of a quoted work in an article. In any case, the identity of every author is always unique and standardized. This seeks to ensure a high level of coherence, allowing the user to follow a name throughout the entirety of the database, visualizing all connected articles, regardless of the connection's capacity.

The *Revistas de Ideias e Cultura* portal ([ric.slihi.pt](http://ric.slihi.pt)) contains the project's practical results. It provides access to the complete collections of many different, and in some cases particularly extensive, magazines – seventeen, at the time of writing –, either directly, by browsing their digitized pages, or via the eight descriptor indexes, available in simple and aggregated versions. In addition, each title is supplemented with a curated selection of all invaluable ancillary documents and studies for the publication's historical contextualization. As magazines can, in most cases, be grouped by movements, as a consequence of the doctrinarian and disciplinary claims and tensions of their time, grouping together the main titles of each current of ideas enables the coherent segmentation of their universe – for example, the magazines published within the modernist, republican, or anarchist movements' frameworks, etc. This process is, by definition and choice, a work in progress, under continual growth, both from a quantitative and qualitative perspective.

One of the project's main methodological bulwarks is the partition of the common “key-words” field into “subjects” and “concepts”; a catch-all field was deemed an excessively imprecise instrument for comprehensively understanding the underlying ideas and ideological frameworks of these magazines. Movements – and magazines themselves, as their organs – tend to build discourses based on conceptual constellations that mirror and determine their visions of life and the world. As such, the only possible way to understand them, while carefully avoiding anachronisms, is to examine the conceptual framework that provides structure to these discourses.

In order to avoid using divergent criteria for defining a concept, a conceptual thesaurus, for use by researchers, was discussed and developed by the team beforehand. The first step in this process was to establish a consensual characterization of the two relevant operative fields. Very succinctly, a concept was taken as an abstraction, whereas a subject was considered the materialization of an idea (Castro 1996: 12–13). For example, in an article that contains the concept “war”, it would be acceptable to also include any subjects that reference specific military conflicts – as long as they match the article's contents, of course – such as “First World War” or “Battle of Ypres”, besides other relevant martial descriptors, such as “trench warfare” or “poison gas”. The intention here is to determine concepts

from a comprehensive, rather than explanatory, perspective; this means that, in any given article, all structural concepts that are mobilized by the author, in accordance with the conceptual economy that supports his or her discourse, are of relevance and should be collected.

While making no claim to absolute denotation or universality, and acknowledging the fundamentally subjective use of concepts, and how they are permeable to historic and situational perspectives, we believe it is possible to arrive at a considerable degree of systematization, akin to what is found in dictionaries of all sorts (philosophical, historical, semantic, etc.). Concepts articulate and are composed of a multiplicity of meanings, containing within themselves the plurality of their historical uses.

A concept (...) should remain polysemic. (...) A word becomes a concept if all the political-social and empirical circumstances under and for which that word is used become aggregated to it. (...) A word contains possibilities of meaning, while a concept holds within itself totalities of meaning.

(Koselleck 2006: 109–10. Authors' translation)

The use of conceptual frameworks also enables registering concepts without *verbatim* textual mentions of specific words (Lisboa 2015: 135). Concurrently, the need for critical interpretation of texts renders the use of text recognition tools (OCR) inadequate; instead, all the input information is collected and validated by researchers.

Taking care to avoid redundancies and repetitions, the guidelines for the definition of the conceptual thesaurus followed principles of parsimony, consistency, and clarity, in addition to favouring common criteria and language comprehensibility for all users. The resulting conceptual network constitutes one of the project's strongpoints, allowing for a clear delimitation of the general and specific terms that structure thought as a representation of the world, a phenomenon which can be found in magazines of the same political, cultural, or artistic movement. The set of reciprocal concepts contained in the conceptual map for each movement provides an unequivocal view of the fundamental ideas and thoughts espoused by their authors.

It should be noted that the project does not aim to classify information, but rather to offer a comprehensive reading of sources. Its output is meant to be the result of a critical analysis of the source and an interpretation of its contents, grounded in the fields of history of ideas and conceptual history, and not a mere automatic or neutral collection of terms and names. The database is not intended to replace the source, but instead to aid navigation through its complexity, providing meaning and structure to the included *corpus* of discourses, and highlighting the underlying programmatic and doctrinarian aspect of these magazines.

## Reception of foreign authors and works in the magazine *A Águia*

If we consider references to foreign authors and works as a sign of the cultural transfer that occurs whenever a cultural object or product is transposed from one context to another, we can argue that, by cross-referencing them with concepts used by article authors we can grasp the resignification and the reinterpretation underlying these transfers (Espagne 2013: 1). As such, by considering the circulation of foreign authors and works we foresee the practices that constitute a cultural transfer into the Portuguese language, even though we don't approach translation directly.

In this section we will present information on quoted authors and quoted works in the articles of one of the magazines published by the research group, *A Águia*, a *monthly magazine of literature, art, science, philosophy, and social critique*. The periodical began as a monthly republican magazine, published in Portugal from 1910 to 1932, but its periodicity was compromised during the Great War, never fully recovering, and later became more irregular. It was finally interrupted for two years, from 1930 to 1932, when the first and sole issue of its last series was published. Even considering the inconsistencies and hiatuses, *A Águia* had an unusually long lifespan when compared to the myriad of other magazines published in the same period.

From 1912 until 1932, *A Águia* was the main organ of the republican *Renascença Portuguesa*, one of the most noteworthy intellectual movements of twentieth-century Portuguese history, defined by an exceptional determination for reforming national cultural life, and a singular capacity for uniting the intellectual elite around a common cause. From its foundation in 1912 until 1915 the movement gathered more than 350 active supporters (Samuel 1990: 50–56). Along with the publication of several periodicals, of which *A Águia* stood out as the most important title, the movement developed many other cultural initiatives, including innovative educational projects, centred on “popular universities”, and one of the most significant editorial projects of its time – *Edições da Renascença Portuguesa* offered a considerable amount of both Portuguese and foreign works, organized into ambitious collections dedicated to education, philosophy, history, children, literature, poetry, etc.

*A Águia's* complete collection was published over five series that featured 205 issues. A total of 1,903 articles were indexed, and the collected data includes unique entries for 403 single authors, 4,299 quoted names, 1,755 quoted works, and 1,033 concepts, among other descriptors, such as geographical names and subjects.

If we look at the distributions of published articles and authors by year, represented in Figure 1, we see the magazine suffered a decline in productivity from 1914 onward, with few exceptions, due to the Great War, which had an enormous

impact on publication dates as well as on contents – in fact, the war quickly became one of the magazine’s predominant subjects. It is also clear, by looking at the gap between the two distributions, that the productivity of collaborators to the magazine peaked in the first few years (with the exception of 1910), with authors contributing with almost three articles per year, on average, from 1911 to 1914.

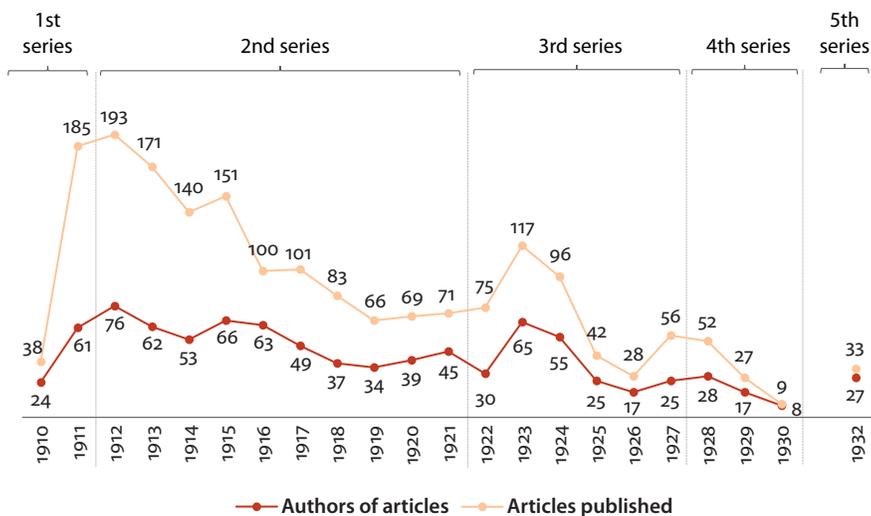


Figure 1. Distribution of articles published and authors of articles by year, in *A Águia*

It is important to bear in mind that this magazine was produced by an intellectual elite and was read by an educated minority – who itself was part of the wider cultural elite. Among other things, this meant that genres and fields of knowledge such as philosophical essays, literary studies, poetry, ethnography, archaeology, etc. made up the majority of its content.

Throughout the pages of *A Águia* we find a considerable amount of references to foreign authors and works. The numerous quoted foreign authors and works in the pages of Portuguese magazines bring to light their contributors’ cultural frame of reference, palpable in the rich and vast reception network that denotes the transfer of French, Spanish, Russian, and English thinkers, poets, scientists, politicians, artists, and writers into Portuguese intellectual culture.

At a time when literature and thought were conceived as great universal constellations, both classical and contemporary, and cosmopolitanism was a common impulse, translation necessarily played a very significant role. Among the collected data, translations can be fairly easily identified, since the names of foreign authors are recognizable at a glance.

In any case, translation was always a fundamental component of these magazines, both directly, in the Portuguese versions of articles written by foreign

authors, and indirectly, in the quotes and references to foreign authors and works. If we consider, for example, the four most noteworthy magazines of the Portuguese libertarian movement, *A Sementeira* (1908–1919), *Germinal* (1916–1917), *Suplemento Literário e Ilustrado do Jornal A Batalha* (1923–1927), and *Renovação* (1925–1926), all of which are explicitly propagandistic – the concept did not yet have the negative connotation that was later associated with it – we find abundant translations of excerpts by authors considered to be particularly relevant in each historical moment, from Malatesta to Kropotkin.<sup>7</sup> In a magazine such as *A Águia*, directed and written by the most reputed Portuguese republican intellectuals of its time, the publication of integral translated texts is sporadic and specific, since the presence and influence of foreign authors tends to take place within the discourses of Portuguese-written articles. It is interesting to note that while the magazine had international correspondents, including reputed Spanish and French authors Miguel de Unamuno and Phileas Lebesgue, all of their contributions, whether essays, letters, poems, or other kind of texts, were published in the original languages; the pieces are presented to readers as written, under the assumption of being understood.

We do find a residual number of translated pieces in *A Águia*, including a few translated poems, mostly English poetry translation studies by Luís Cardim, a professor of English language and literature at the Faculdade de Letras do Porto, which was an academic institution that cultivated a strong connection with the Renascença Portuguesa movement and the magazine since 1921. The translated authors include renowned and celebrated poets such as Walt Whitman, Lord Byron, William Blake, Elizabeth Barrett Browning, and John Milton. Only two poem translations were not done by Cardim: one by Maurice Maeterlinck and the other by François Villon (in this case the original is published alongside the translation), both from the French language.

Also of interest is a section called “Os novos tempos e a sua literatura” [New times and their literature], published between 1917 and 1921 over 16 different issues, where its author, art critic and pedagogue António Arroio, translated several articles originally published in French magazines during the Great War, with the purpose of illustrating his thesis on the impact of the war on literature. All translated pieces were literary texts (short stories, brief theatre plays, etc.).

A small number of essays about translation, where details of specific translated texts or books are discussed, sometimes by the translator himself, are also to be found. Among these, we could single out three articles on a contemporary translation of the *Book of Job*, by writer and politician Basílio Teles, two of which review

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7. For example, in *A Sementeira* 10 out of the 20 most referenced authors are foreign, and all of their articles were translated into Portuguese.

and praise the quality of the work, while the third offers an excerpt of the translation itself, with comments from the author.

Apart from occasional announcements of upcoming translated books to be published by the *Renascença Portuguesa*, no further significant translated texts or articles with direct references to translation can be found in the magazine. However, as previously argued, we believe this scarcity of translated pieces should not be mistaken as a sign of absence; it merely demonstrates an implicit, rather than explicit, presence of the topic of translation on its pages.

Taking a closer look at the list of quoted works throughout *A Águia's* thirty years of publication, it is interesting to note how magazines and other periodicals dominate the universe of references. Considering only the 50 most quoted works, 34 are periodical titles, of which a further 27 are magazines. In Figure 2 we see that out of the 15 most quoted works in the magazine, only one title is not a periodical, and out of the other 14, only 2 are not magazines (*O Primeiro de Janeiro* and *Diário de Notícias* were newspapers).



**Figure 2.** Fifteen most quoted works in *A Águia*

The overwhelming predominance of references to magazines evokes an important feature and function of these periodicals as mediums of dialogue, where exchanges between authors took place from title to title, and from article to article, over a back and forth of arguments built on preceding responses. Even in situations where there wasn't an intellectual communication as direct as in these prolonged idea exchanges, references to the latest articles read by these authors were very common, as they represented the opportunity to acknowledge and confront the fresh work of other public thinkers and scholars. References to foreign magazines

also denote eagerness to be at the forefront of discussions taking place abroad, in venues seen as cosmopolitan centres of culture.

The relationship between references to an author and references to his or her work can unveil different types of influence. With regard to the ten most frequent national and foreign authors (in other words, the authors most often quoted throughout the magazine), Table 1 shows the number of articles where each author is quoted, of articles written by him or her, the number of his or her quoted works (books, articles, etc.), and of articles where these are mentioned. For example, Leonardo Coimbra is quoted in 51 articles, wrote 61 articles, and 11 of his works are referenced over a total of 25 occurrences.

**Table 1.** Ten most quoted Portuguese and foreign authors, with number of quotes, articles written, quoted works, and quotes of author's works in the magazine *A Águia*

Quoted authors	No. of quotes	No. of articles as author	No. of quoted works	No. of quotes of works
Luís Vaz de Camões	83	–	2	25
Camilo Castelo Branco	71	16	15	18
Leonardo Coimbra	51	61	11	25
Teixeira de Pascoaes	50	66	13	29
Guerra Junqueiro	47	1	5	12
Teófilo Braga	39	12	9	12
Eça de Queirós	35	1	9	12
Jaime Cortesão	32	59	12	19
António Sérgio	29	47	10	18
José Leite de Vasconcelos	25	2	11	12
Immanuel Kant	43	–	0	0
Henri Bergson	43	–	3	3
Victor Hugo	41	–	2	3
Friedrich Nietzsche	40	–	1	3
Plato	33	–	1	1
William Shakespeare	32	–	5	10
Dante Alighieri	30	–	1	4
Arthur Schopenhauer	29	–	0	0
Isaac Newton	26	–	0	0
Aristotle	26	–	0	0

It is clear that quotes of works by Portuguese authors greatly outnumber those of foreign authors. Also interesting, and of significance for the study of the reception

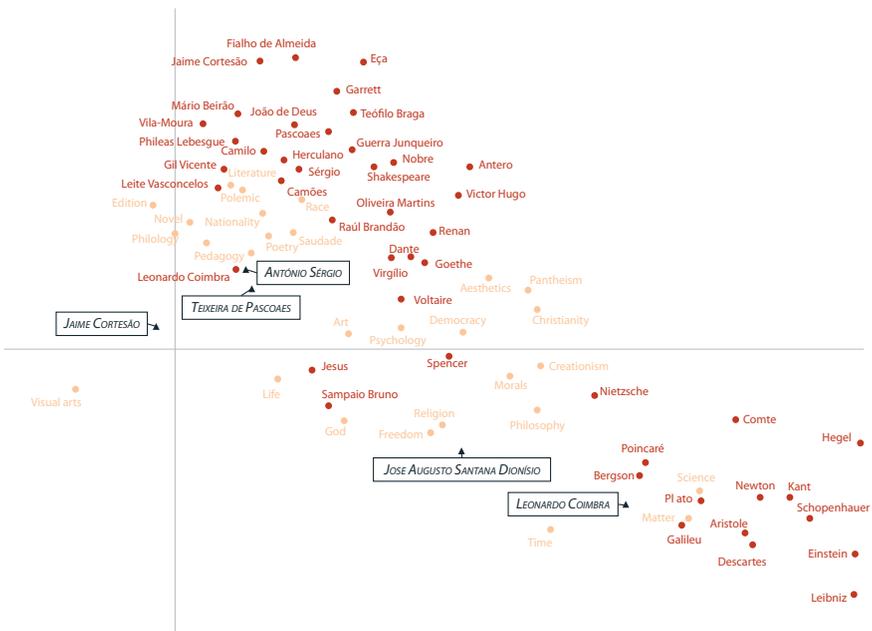
network within the magazine, is that authors whose works are quoted more often are also those who wrote the most articles for the magazine; not only are they some of the most quoted names, but also the most prolific contributors. Conversely, references to specific works of foreign authors are scarce, even when the authors' names are commonly quoted. For example, in the cases of Kant, Schopenhauer, Newton, and Aristotle, all of which are important influences for the magazine's writers, hardly a mention is made to individual works of theirs. Here, we can safely assume that existing quotes refer to their general body of work, or the most notorious ideas for which they were known.

Confronting information on quoted names with concepts found in articles allows us to highlight relationships between discourses and reception. Using this information together, we can better understand the most significant contexts where foreign influences help to structure the ideas postulated by the magazine's authors, and bring to light the most influential names in relation to specific contents.

In Figure 3 the most common concepts and quoted names are projected on a two dimensional map. We used multiple correspondence analysis to visualise concepts and quoted authors in articles, highlighting patterns of simultaneous occurrences (Carvalho 2008: 91–124; Hair et al. 2014: 519–40), using the 50 most frequently quoted names and concepts, which can be found, in different combinations, in 1,521 of the 1,903 articles that make up the whole magazine. In short, the procedure consists of a multivariate method for analysing qualitative data, finding similarities and dissimilarities between individuals (in our case, articles) based on the frequency they are used together, and projecting these relationships as proximities or distances between categories. In the projection, if names and/or concepts are projected closer to one another, it means they are more commonly used together; if, on the contrary, they are very far apart, it is less likely that they appear together in any article.

Concepts are shown in orange and names are shown in red. Since the method aims to find profiles of articles based on the different uses of quoted names and concepts, all categories that were shown not to contribute to differentiate between articles were deleted from the map, in order to provide a clearer output. For example, if a concept is very common and found in a great amount of articles, it will not be useful for understanding the underlying references and conceptual structure that distinguishes any given article from the rest. In other words, if a quoted name or concept is frequently found in articles that include other groups of concepts and names that are used in very specific contexts, and very different from one another, the common descriptors will be deemed irrelevant to distinguish between groups of articles, as their frequency throughout the analysed articles is too high.

We can identify two constellations of authors. The first is composed mainly of Portuguese authors and a few classic literary references – Shakespeare, Dante,



**Figure 3.** Map of the most quoted names and concepts that differentiate between articles in *A Águia*

Hugo, and Goethe, for example. Close to these authors we find concepts such as “literature”, “nationality”, “poetry”, “race”, and “*saudade*”. The very important literary component of *A Águia* can be seen on display here, under the strong influence of authors who attempted to recover what they perceived to be the truly distinctive features of Portuguese national culture and identity. During the magazine’s most productive years – from 1912 to 1916 – its artistic editor, the poet and leading voice of the *saudosismo* literary current Teixeira de Pascoaes, played a prominent role in the periodical’s direction. In very broad terms, *saudosismo* is a complex conceptual construct, partially analogous to other related concepts such as “race”, “nationality”, or “*saudade*” (see, e.g., Saraiva and Lopes 2010: 964–72). In fact, over time, historians and critics took this as one of the magazine’s most noted and distinctive traits, to a point where one could say *A Águia* became simplistically labelled by it.

The names of five authors who are among the magazine’s most prolific are also projected on the map. Their names are italicized and boxed, so as to clearly differentiate them from other projected names. António Sérgio and Teixeira de Pascoaes were two pivotal figures in the history of the magazine and the *Renascença Portuguesa* movement. In the projection they appear close to each other and very much aligned with the first identified profile. This proximity mirrors the ongoing

polemic between the two authors, which ran for several issues, developed around Pascoaes' view of Portuguese culture and identity. This was one of the most prolonged and fierce clashes that took place in the magazine, bringing into direct confrontation two of its key figures in a hard-fought intellectual dispute.

On the lower right corner and spreading to the centre of the map we see a significant number of foreign authors, almost all renowned intellectual luminaries. Interjected between these names we find concepts such as “science”, “matter”, “philosophy”, “time”, “morals”, or “religion”. This constellation highlights another important facet of *A Águia*, as a magazine that was also dedicated to philosophy and sciences, as, in fact, was stated in the subtitle. Essays on these subjects were frequent, and discussed contemporary currents of thought and the philosophical heritage of eminent thinkers. Leonardo Coimbra, and later Santana Dionísio (as he was part of the *Renascença* and the magazine's second generation), were the most prolific in this field; as such their names as authors (italicized and boxed) show a strong connection with articles where authors and concepts related to philosophical and scientific discussions are used together.

Another interesting conclusion we can draw from the map is that articles related to visual arts stand apart from the rest, and appear unconnected to other concepts and quoted authors. Interestingly, only Jaime Cortesão, another seminal name in the magazine's history, is projected relatively close to this concept as a contributing author, due to a number of his drawings and caricatures that were published in the magazine. Since, as we mentioned earlier, all independent pieces should be included in the database, these graphic items – along with their respective authors, often a painter or illustrator – are considered as articles.

In conclusion, the presence of translated articles in *A Águia* is for the most part residual, since the magazine was the public instrument of a broad national cultural reform project developed by the *Renascença Portuguesa* movement and, as such, first and foremost dedicated to publishing national authors. Notwithstanding, foreign influences are far from absent from its pages, as the abundant references to foreign authors and works clearly demonstrate. This presence is especially prevalent in philosophical and scientific essays, where authors and founders of the most renowned and acclaimed schools of thought are frequently referred to. This suggests that exploring an underlying, implicit, reference framework could yet yield significant insights into the theory and practices of translation in magazines of ideas and culture and other similar historical sources.

## Final considerations

Even though, in a strict sense, translation is almost absent from the pages of *A Águia*, we have tried to demonstrate how cultural transfers can be brought to light by considering the reception of foreign authors and works, particularly by crossing these references with the conceptual frameworks underlying the published discourses.

As we have tried to demonstrate, the statistical procedures that can be used with the aggregated data gathered by the *Revistas de Ideias e Cultura* project, bringing to light original information about the sources, are varied and numerous. Even though only a small number of these methods were shown, the reader will hopefully have been given a glimpse into the possibilities created by applying multivariate quantitative analysis to this type of data, illustrated here by focusing on the reception of foreign authors as a proxy of the presence and importance of translation in the magazine *A Águia*.

The use of other procedures, such as network analysis, also promises to be rewarding for computing conceptual networks, with the possibility to visualize, for example, subjects clustered around conceptual constellations, or to help outline the reception networks of a given magazine or movement, with authors projected as nodes and connected to each other based on existing mutual occurrences in articles.

The sizeable and sundry hurdles to methodically manage unusually extensive contents becomes clear if we consider the complexity of these magazines, as mirrored in the corresponding databases that have been produced; the use of digital means for analysing all collected data and providing visual solutions for representing their most relevant aspects creates a previously inexistent instrument for overcoming them.

It should be unequivocal, however, that regardless of any procedures and methods we apply to analyse aggregated information, the ability to understand the outputs always originates from an intimate knowledge of the source, one that appreciates its history and the historical context in which it existed. We believe that any study about any type of complex source using quantitative data analysis always requires a close familiarity with the original material. The use of aggregated data invariably calls for a simplification of intrinsic complexity and, consequently, implies detail loss. If the analyst's goal is to find meaning in simplified and abridged information, an acute awareness of what is lost and unaccounted for needs to be exercised, so as to make sense of results. In other words, aggregated data has the potential to become truly meaningful when we understand the substance of what is aggregated and have the cognitive means to interpret it.

Finally, the most relevant advantage of using statistical and digital methods on complex data sets is their ability to provide comprehensibility and interpretability. This always requires a trade-off between the data lost in the process and the knowledge gains; the only way to make a grounded decision on the merits and usefulness of this route is to start by ensuring a solid knowledge of the object of study, and, consequently, direct access to sources should be a priority for every researcher. The *Revistas de Ideias e Cultura* project seeks to respond to this need by first providing public access to digitized magazine collections, and second by complementing them with thorough and vast corresponding descriptor databases, whose purpose is to give users the encouragement and means to navigate and discover these intricate contents.

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