
The Republics of Letters: the Need to Communicate and Exchange

The scholar's need to be able to communicate and pool different work is chief among the key features that recur in the history of digital humanities. If these aspects have become evident thanks to the Web, we need to re-examine the different paths that have led to the constitution of places of knowledge and scientific sharing well before discussion lists and open archives. That is the purpose of the "Mapping the Republic of Letters" project of the University of Stanford¹. However, we must be wary of the temptation of diffusionism, which is to visualize information flow without taking the real impact of reading and the role of readers into account, which is what Sandro Landi [LAN 06] denounced in particular. Diffusionism also ignores the fact that those communicating do not stay in the same place all their lives, which inevitably has an impact on representations. If we take the example of Pierre Bayle (1647–1706), a fixed representation of his correspondence network is of limited interest, as it must be accompanied with the geographical network of a dynamic representation that takes chronology into account. The idea of networks of exchange between researchers is then not as new as social networks of research might make them out to be. In fact, Willard McCarty had created *Humanist*, a diffusion list, as a kind of electronic seminar. However, he is not the first to have thought of a community for exchanges.

¹ <http://republicofletters.stanford.edu/>.

The creation of the Republic of Letters represents a form of pre-digital humanities. These knowledge communities were built on the logic of knowledge flow through printed material as well as handwritten notes and exchange of letters. Annie Barnes described this community as follows:

“The Republic of Letters was made of men of letters and intellectuals of all countries. Note that intellectuals had a role larger than that of poets and that the Republic of Intellectuals, as it was known in Germany, was a more accurate term. It was a state that was strongly democratic, in which birth had no part and only knowledge placed each citizen in his appropriate rank. Differences of nationality as well as religion was effaced... It had a language which was international: Latin – and later French. The first duty of each citizen was to serve ‘*les lettres*’ and the best way to do so was to participate in a system of exchanges. This was accomplished by a vast correspondence which covered the entire continent, and which formed the actual link between citizens of this ideal Republic... Books and precious manuscripts were also exchanged” [BAR 38, pp. 13–14].

This description demonstrates the richness of a community that was too often reduced to the 17th and 18th Centuries. Françoise Waquet [WAQ 89] showed that the expression is more ancient and that the concept of letters – *litterae* – must also be investigated, which refers to those who are interested in arts and science. Men of letters are men of science.

1.1. Republic of Letters

The Republic of Letters was often reduced to its important scholars, but it constitutes more than just a simple European network of great scholars and was of interest to amateur researchers and minor scholars [FER 14a]. While it is true that the network was primarily European, it was limited in that sense.

The Republic of Letters was as much a republic of scholars as it was of letters, and it brought together scholars not only in terms of those who could read and write, that is in the Kantian sense of savants [KAN 84], but also as men of letters, as they corresponded *via* letters. Letters are thus “a vehicle of scientific information”. It should be noted that networks of correspondence are correlated to societies, that is the salons which are not always easy to enter or where it is not always easy to put on a good show.

Candice Delisle outlines the core values of the community of savants:

“This is built around four values that are common, at least in ideals, to present-day science: *integritas*, perfect honesty, not hiding the truth, not saying anything false; *acquitas*, the capacity to judge in a fair manner; *liberalitas*, agreeing to share knowledge and information; and finally, *fides*, good faith, loyalty and being trustworthy. These four values are often mentioned in the letters exchanged. Thus, declarations of friendships abound and attributes are added to the correspondent’s name. *Bonus*, *eruditus*, *liberalis*, etc. show that a true friend must also have moral and intellectual qualities that are characteristic of the good scholar. In particular, he must know how to be generous” [DEL 06, p. 36].

These are the values that helped evolve one of the most important scholars of the Republic of Letters, Marin Mersenne (1588–1648), who served as its unofficial secretary². Mersenne was a priest of the Order of Minims, who later taught philosophy and mathematics, and was a great scholar in his time. As he was initially a defender of orthodox Christianity, his early writings firmly condemned new and heretical thoughts, before exchanges and the desire to access knowledge took over. Mersenne played a crucial role in the emergence of collectiveness in scholarly practices that were primarily individual. For this, his network of correspondence helped develop a virtual

2 A diffusion list bears his name in his honor: <https://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=mersenne>.

community through the submission of challenges and questions. The exchange of letters that Mersenne received went beyond just questions and challenges and ended up creating a network that would not stop growing.

Mersenne greatly contributed to studying the works of Galileo (1564–1642), even though he dwelled on the scientific character of the savant, greatly minimizing his systematic and philosophical thinking, which was felt to be too heterodox and considered too risky to expose. Although it is hard to know what Mersenne’s position truly was regarding heliocentrism, which he condemned in his writings, the priest made the choice of setting the acceptance conditions of a new science with his network of correspondence. If we wish to make a metaphor, Mersenne’s network of correspondence was clearly a new system in which he finally chose to play a modest, but crucial, role revolving his system around authors who were like the sun to him, shedding the light of future science: Galileo and René Descartes (1596–1650).

Galileo and René Descartes are hard-to-understand personalities, who lived somewhat hidden in comparison to the institution, and whose ego was such that they did not seek to clearly relate to others to the point that they cited very little of the work that preceded them and which contributed to their thoughts. In this, Mersenne is often seen as the mediator. The contemporary practice was to write biographies, *curriculum vitae* that would ensure that the reputation of the person and the author survived their death. It was the same with Descartes’ biography by Adrien Baillet (1649–1706), and that of Nicolas-Claude Fabri de Peiresc (1580–1637) by Gassendi (1592–1655). The objective was to both show the lives of the savants as an example, and ensure that they were not forgotten, and their work and contributions not lost.

Peiresc represents the sponsor scholar, not as a funder, but mostly as a protector of scholars, which earned him the title of “prince of the Republic of Letters” by Pierre Bayle [BAY 20, pp. 2216–2217]. A prince who was able to organize collective and collaborative work, which made him as much of a scholar as a simple humanist [CHE 11a]. He asked his network of correspondents to observe the lunar eclipse on August 27, 1635, with a telescope. It was in this way

that the eclipse was observed at the same time at Digne, Aix, Padua, Rome, Naples, Cairo and Aleppo. His objective was to verify that by observing phenomena at the same time from different places, it was possible to calculate longitudes:

“The result of this noteworthy group work was reducing the eastern side of the Mediterranean by a thousand kilometers. So, what was it that Peiresc and his team, consisting mainly of clerics, managed to do here? Quite simply to correct the map of the Mediterranean in use since the time of Ptolemy. Research hypothesis, team work, observations, and analysis of results made it possible to correct information developed by a ‘prominent figure’ of antiquity” [CHE 11a, p. 698].

Gradually, the scientist who emerged was less and less isolated and no longer an instrument of reputation of monarchs [BUR 15b], but an instrument of his own reputation through his publications. The savant thus became autonomous, meaning that he was not necessarily in the service of his employer, but in the service of the most important and biggest causes, which were above national disputes. In this regard, the savant became detached from national and religious imperatives.

This quest for the truth did not stop the pursuit of recognition that became a driving force in the networks of correspondence, since seeing one’s works being read and shared made it possible to enhance one’s reputation at the international level. However, the process of adhering to a collective spirit evolved a willingness to detach personal interests in science:

“The socialization process of detachment that had begun in the 18th Century to distance scholars first from family and friends and then from contemporaries and compatriots, in the 19th Century eventually estranged them from themselves as well. An eminently psychological process was thereby enlisted to eliminate all that was ‘merely’ psychological and it ultimately forged that peculiar identification of scientific objectivity with the invisibility of the scientist” [DAS 91, p. 383].

This rationale was also apparent through the desire to connect friends and thus create networks. In this context, humanist Conrad Gesner, who had a lot of exchanges with several collaborators, must once again be cited. He corresponded with hundreds of humanists, and also with professionals from various fields such as gardeners, ranchers, hunters and miners. He used a particular document to keep a record of his relationships, making his friends sign his *Liber amicorum*. 224 people signed it. Gesner specifies the biographical details of each person in his record [LED 15]. It was also a way of thanking them later for his works, as Gesner needed to collect as much information as possible for works, and also on plants and animals, which could not have been possible without the help of a network of collaborators. Science could not be based on one person; from then on, only networks of researchers could help make progress.

1.2. The role of journals and the beginning of scientific information

Established by the Denis de Sallo, the *Journal des savants* was a 12-page quarto published weekly that mentioned “what is new in the Republic of Letters”, through extracts from recent books, memoirs of scholars and even relationships on jurisprudence [VIT 05, p. 182].

Then came the article, which slowly built itself around the works of Pierre Bayle and his news about the Republic of Letters. In fact, the article constituted an extract or a numbered passage with a title generally in italics. The term ‘article’ only truly began to take root after 1700.

These scientific productions were undertaken with royal privilege. However, their success led to falsifications and unauthorized reproductions outside of the kingdom of France, notably in Holland, where the journal for scholars [BIR 65] was printed by Daniel Elzevier. With the development of *Open Access*, contemporary scientific editorial problems were regularly discussed, and it was soon forgotten that the issue

of having rapid and inexpensive access to scientific productions was in fact an ancient one. Finally, it was understood that even piracy was an assurance of success:

“Ironically, the *Journal des savants* owed its success to this editorial piracy: the expansion of the commercial network of Dutch booksellers enabled them to directly meet a faraway order as well as supply to German fairs that could redistribute their publications all over Central Europe. The introduction of the journal in the Uppsala University in 1667 marks the first form of this circulation; the result of the second is its presence in Breslau the same year. It was thanks to the Dutch workshops that the journal was in the library of the Saint Petersburg Academy of Sciences since its inception, and acquired by Jesuits for their Pei-tang library and their college in Pekin, the city where the National Library of China undoubtedly still preserves them” [VIT 05, p. 203].

The wait for the next publication was often emphasized in correspondences, as that was precisely how one learnt of the latest discoveries, found new information that could be of use later, and stayed informed of what was happening outside one’s local environment.

The need to have information faster and to be able to make progress in one’s research were what helped evolve scholars’ ways of working who needed to improve their work methodologies as well as their scientific methodologies to draw more quality observations that were documented, and which can be seen and understood by others. The diffusion of information is like a condition for the evolution of science. Thus, at the height of these correspondences and progress in printing, the Republic of Letters was divided according to specializations to such an extent that there emerged a Republic of Sciences. However, we learn that although this Republic seems to

have emerged in the 18th Century, it had a strong heterogeneity and a little mediocrity, if we analyze the statements of Frédéric II of Prussia:

“Among intellectuals, there are such powerful mathematicians, commentators, translators, and compilers, who have useful roles in the Republic of Sciences, but who are anything but brilliant. They are used like Doric columns in architecture. They are the foundation, bearing the entire building and its Corinthian columns that form the decoration.³”

This unflattering description by the Prussian king reveals the reality about work methods and traces a typology of the different players who participated in the production of knowledge. It is also interesting to think that, in this scientific work, a research mechanism was already evolving gradually, based not only on iconic researchers but also on all those who helped them in this work. Very few are named, notably companions, close friends or students. Yet, it is impossible to even think that some projects – which involved gathering notes and classifying them, even summarizing them, or writing up some experiments and observations – could have succeeded without the aid of persons outside of this circle.

A hierarchy was established between different ways of producing knowledge. Compilation, scholarly writing and encyclopedic work gave way to the desire to create new knowledge, a new science (with the writings of Giambattista Vico in 1725 and 1744) that relied on producing new knowledge that came from other work, even if the usage in terms of citation was not fully developed or embraced, rather than relying on annotated references, like scholastic ones. For example, Descartes or Galileo cite very little other work that could have inspired them, either

3 Translation of the letter from Frédéric II to his brother, dated October 31, 1746, in Euler L., *Correspondance de Leonhard Euler avec P.-L. M. de Maupertuis et Frédéric II*, Springer, p. 278, 1986.

because they felt that their own discoveries and reasoning were the result solely of their own spirit and work, or because their desire to create something new hinges on their desire to set themselves apart from the past.

The rationale for differentiation follows the rationale for classification. Knowledge must be separated and organized after being accumulated. It is in this context that separation between arts and sciences happened progressively in terms of relationship with the truth, a tangible and demonstrable truth, and knowledge that is more cumulative, erudite and less accurate:

“The distinction between the sciences and the arts is made by ruptures that are local, moving and complex, the outlines of which can be read in the *Encyclopédie* or equally in the literature of its detractors. One of the ruptures happened through the different implementations and discussions on the ‘use’ of sciences, *versus* the decline of erudition and arts. Another nodal point was the figure of the *savant*, the man of hard science, who separates himself from beautiful minds and scholars, and whom D’Alembert attaches to the truth related to purpose of the scholarly quest, as opposed to the opinion that determines preference” [PAS 08].

We find reason supported by the enlightenment, a reason that oscillates between a reflective approach and a computational rationale. Digital humanities oscillate between two types of *ratio* that distinguish Latin etymology from what is based on calculation, the possibility to count, and what is rationalization. Leibniz (1646–1716) perfectly embodied this tension, as he was both a mathematician and a philosopher, which made it possible for him to propose a new vision of the world [SIM 99]. But it is necessary to remember that he was also a librarian for nearly forty years. This work gave him easy access to information and knowledge, and created a need in him to think of a way to file and classify knowledge. Consequently, his discovery of bibliotheconomy after reading Gabriel Naudé (1600–1653) and meeting other librarians, especially in Paris, influenced his reasoning

concerning organizing knowledge. The importance of books is clearly emphasized as well as the need for renewal in this subject... which requires constant involvement and patronage. Therefore, it is important to know how to convince and get sufficient funding [PEL 09], which is what Leibniz managed to do with the Duke of Wolfenbüttel:

“A well-furnished library is like a science shop and a printed archive, in which we find more information about the rights of great princes and events (mainly concerning the State, the Government and the economy) than in the archives of a court or in public writings. [...] This ensures that if Churches, Schools and archives are worthy of care from those who intervene in the government, libraries belong to them no less. But a Library, however beautiful it might be, cannot be conserved if we do not take care to add to it. Every day, we highlight the most beautiful works of Theology, Jurisprudence, Physics, Mathematics, and other curiosities, which result either from researching nature, or from experiences in political matters, or from the contemplations of clever people; and we can truly say that we are only starting and that we have hardly found the first openings in this century, for knowledge about nature, and the small-world and large-world systems. It also hasn't been long since we conducted an accurate research about history, from which we can conclude that libraries of great Princes may become less than perfect, if their size is not proportionally increased” [LEI 68, p. 207].

Therefore, documentation costs are not solely a current problem in digital humanities. The rationales that allow for rapid access to information are predominant because of the appetite for knowledge, and because staying informed is a way to grow and to make progress in science. The success of open archive systems, the claims of *Open Access* or even the development of academic social networks and the ease of exchange fall within this dynamic. Therefore, there is a

certain judicial confusion and sometimes ethical problems in the circulation of scientific documents. For this reason, the question of increasing the size of the library asked by Leibinz constitutes a milestone in the organization of knowledge, and in the increase of scientific knowledge. This rationale about increase relies on having external resources in individual memory (anamnesis), which may be consulted when needed (hypomnesis). Consequently, the history of digital humanities is based on this capacity of knowing how to manage information storage devices and knowledge of how to expand both the human mind as well as science at a collective level. First, it is useful to review this relationship to writing devices.

