

BOOK TRADE ARCHIVES TO BOOK TRADE NETWORKS

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Now that so many national histories of the book are being produced around the globe, it is a good time to return to the exploration of international book trade relations with renewed vigour. Many national 'history of the book' publication projects in progress will no doubt feature chapters on the international book trade, but in more ways than one the nation state places needlessly narrow geographical boundaries on the study of even predominantly national book trades. Though his chief focus was the eighteenth century – before the convergence of linguistic and national boundaries had consolidated – Robert Darnton's remarks in *What Is the History of Books?* are pertinent for any period:

[B]ooks ... do not respect limits either linguistic or national. They have often been written by authors who belonged to an international republic of letters, composed by printers who did not work in their native tongue, sold by booksellers who operated across national boundaries, and read in one language by readers who spoke another. Books also refuse to be contained within the confines of a single discipline when treated as objects of study. Neither history nor literature nor economics nor sociology nor bibliography can do justice to all the aspects of the life of a book. By its very nature, therefore, the history of books must be international in scale and interdisciplinary in method.¹

The wider perspective afforded by a renewed concern with charting international networks of trading in books and ideas would undoubtedly have much to offer all historians of the book, including those whose interests are primarily national. Concentrating on Europe, the notion of a federated European cultural heritage that is now taking root should aid a more internationally oriented research effort. Another important development which will help broadening the scope

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¹ ROBERT DARNTON, *What Is the History of Books?*, in *The Kiss of Lamourette*, New York, 1990, p. 135.

of book-historical research is evidently the growing awareness of the potential of the networked computer. Fostering an active European network of book historians is not only a worthwhile, but in our networked world more than ever also a practicable pursuit.

One of the promises held out by the digital medium is that of interoperating archives. For a more internationally oriented research, this type of access is indispensable. Digital interoperability makes it possible to achieve that cherished ideal of librarians and academics, of unified distributed access to primary sources. Records which are geographically dispersed but which nevertheless bear a certain scholarly relation to each other can be virtually united within a single enveloping repository.¹

At the University of Leiden, a project has begun which sets out to realise such an objective. The project aims to establish a networked archive which offers access to transcriptions and digital surrogates (*i.e.*, scans or photos) of primary sources pertaining to the international book trade, integrated within a single virtual repository. In particular, this will involve correspondence by and about any of the various parties which are involved in the book trade, including authors, publishers, booksellers, printers, agents, and distributors. Initially the project will concentrate on nineteenth-century correspondence, and confine itself to letters held by the Leiden University Library. At the second stage of the project the goal is to offer distributed union access to other Dutch sources. Further expansions could involve other periods, other materials besides correspondence and, crucially, contributions from other countries.

The Netherlands, as James Raven has remarked in *Selling Books Across Europe*, offer an excellent example of the usefulness of an international focus: «The political (not always language) unit is the obvious enabler for retrospective national bibliographies..., but books circulating within that unit were and are international commodities».²

Much if not most of the Dutch history of the book is really a

¹ On the subject of virtual repositories, see also SIMON ELIOT, *Two Catalogues, Three Projects – and a Tentative Proposal*, in *Digital Access to Book Trade Archives: Papers of the 2001 Conference in The Hague*, eds. Berry Dongelmans, Ad Leerintveld, Adriaan van der Weel, Leiden, 2002, pp. 69–83.

² JAMES RAVEN, *Selling Books across Europe, c. 1450–1800: An Overview*, «Publishing History», 34, 1993, p. 6.

history of international book trade. For this reason it is hoped that the project will be able to attract partners and be an example that is followed also in other countries. Until the middle of the nineteenth century Holland's chief trading partners were European; later in the century trade extended to other parts of the world. But to a greater or lesser degree the trade in books is international everywhere.

The creation of a networked archive of this nature will serve a number of scholarly interests. Most obviously perhaps, from a practical and logistic point of view distributed union access to primary sources will save researchers much time and footwork. As both transcriptions and digital surrogates of archival materials are made accessible via web-based technologies, these documents, the originals of which are held by institutions in many different places, can be accessed at any time and irrespective of the geographic residence of the researcher. At least as interestingly from the point of view of scholarship, such a networked resource can be used by researchers in very different ways than the corresponding individual analogue materials.

For example, it will – quite simply – be practicable to consult a larger amount of text if the researcher does not have to do the deciphering and transcribing of handwritten and often barely legible sources. Also, studies can be attempted which may involve quantities of data that simply exceed the individual human scale. Participation in the creation of the resource can be from individual scholars working with materials that fall within the project's scope; through library digitisation projects involving relevant materials; and by students of the history of the book, or text encoding. In order to grow, the project at Leiden aims especially to benefit from the efficiency with which the digital medium is able to foster national and international co-operation.

The projected database can also broaden as well as deepen the scope of future research programmes. The initiative aims at creating a facility that would enable and encourage individual researchers to make contributions to the database in a standardised form, so that it could grow to cover a large and broad array of information. On the basis of this inflow, research programmes can be initiated that incorporate a larger number – and a wider variety – of relationships. A well-filled repository allows for the investigation of structures and networks which have hitherto been left unexamined due to practical

obstacles. The production, distribution and consumption of books has refused to comply with the practicalities of political or linguistic boundaries, and the project at the University of Leiden aims to lay the foundations for a flexible and versatile form of scholarship whose scope is not restricted by the location at which materials are held, or perhaps even – given sufficient funding – by the language in which materials have been composed. Translations of letters could be provided, if not initially, at a later stage.

The sort of co-operation that this project is designed to foster is now becoming more common, and can be seen at work during web-discussions, listservs, and on-line conferences. As has been noted above, web-based research tools make it easier to share results. Also, investments for the implementation of the infrastructure need only be made in one place once to be available everywhere. The basis for such co-operation is no longer necessarily provided by a shared geographic residence, but instead by a common scholarly interest. In addition, the medium stimulates the tearing down of traditional divisions between disciplines. In a sense, the entire academic spectrum resides within a single fluid (digital) element, and the various disciplines may in theory be connected as a result of a single mouse-click. A practical form of interdisciplinarity will be eminently possible during the creation of a digital resource which provides access to (book) historical correspondence, too. A tool such as the one described will be of interest to linguists (history of language), cultural historians (the cultures of correspondence), historians of science (history of scholarly communication; the role of the vernacular in scholarly communication and scholarly communication networks), just as the design and creation of the tool will interest computer scientists (innovation of dynamic web resources), and cognitive psychologists (problems of interfacing, pedagogical issues). In his influential lecture *The Two Cultures* (1959), C. P. Snow has argued that the separation of science and the humanities proved a hindrance to major scientific advances. It will be interesting to await the results of the transformations that the digital medium can effect for exactly these types of divisions.

Both in its subject and in its practical and formal design, the project is thus designed to make a contribution to the very topical interest in the infrastructure of scholarship. The creation of digital repositories like this fits into a more general shift that we can currently see taking place in the world of scholarship. Stimulated by the nature of the

digital medium, this shift appears to be taking us away from a focus on synthesis, towards an interest in the development of new research tools, designed to yield input for later synthesis. Instead of expressing itself in traditional academic narrative, the latter form of scholarly research is more analytical, focused essentially on the provision of possible foundations for future narratives. In particular, much time is being devoted at present to the development of technical solutions which should lead to the emergence of tools and methods which can more efficiently, and perhaps even autonomously, take on part of the workload of the researcher. As such, these research efforts do not produce synthetic end results in themselves; the novel devices which are being tested and implemented provide components resulting from prior analysis, to be used as a basis for future synthesis.

The current preoccupation with the infrastructure of scholarship may not persist. It seems likely that this somewhat post-modern focus on the methodology rather than on results, and on questions rather than on answers, is connected to the general newness of the digital medium. Whereas the desire to provide building blocks for future generations of researchers has of course always been an integral part of scholarship, this interest is intensifying because of the emergence of a medium which seems to provide an optimal environment in which new research methods can be explored. Scholars all over the world are exploring the possibilities of the new medium in this direction.

It is fair to say that there is currently no undisputed agreement on how to implement a network of digital archives. Even if technical specifications could be agreed on, user expectations and requirements notoriously remain an unknown quantity. Using the digital medium in the context of humanistic research is a relatively new phenomenon as against publishing digital texts for more reading-like consultation. To address the lack of familiarity with the digital medium the project at Leiden is planning to include on a meta-level a more theoretical investigation of the transmission of scholarly knowledge through the digital medium: how scholarly research may be affected by the use of digital resources.¹

¹ In fact, it would be useful if all research programmes that intend to make use of electronic tools (either as a means to a higher goal or as an end in itself) were to scrutinize the way in which and the extent to which the employment of this medium influences not only the methodology, but also the type of research questions

To begin with, it is an almost universal problem that it is not known who wants to use digital research tools and for what purposes. Since we do not know how the tools will be used exactly, we do not know how to design them. Despite the fact that certain de facto standards have emerged on the web, it is by no means evident that these practices represent the optimal way of storing, structuring, presenting and querying the types of information we are dealing with. Moreover, the use of digital resources is likely to open up a whole new array of questions that can be asked exclusively with the aid of a digital resource.¹

Whether we will in actual fact be able to ask these questions of the digital resources that we prepare for publication, depends entirely on how we store, structure and present these resources. This means that the design of the interface, not just between the user and the system, but between the user and the information, as well as between the information and the system, is vitally important. The interface is not just a matter of colours, buttons and system responses – though it is all that as well – but the entire array of possible ways in which the user may use, read and, interact with the information. If a book lacks an index, we are severely hampered in extracting information from it. If a digital resource holds the answers to questions that its creators have not provided the means to ask, users are similarly crippled.

Probably the greatest challenge that confronts us, both as providers and as users of digital information, is to understand to what extent the potential of the medium of electronic text depends for its realisa-

that are investigated and the type of knowledge that can be created. Such analyses would create advances in our understanding of the digital medium. See also A. H. VAN DER WEEL, *Het vluchtige woord: Teugels en vleugels*, the text of an address given to the research school Pallas of the University of Leiden, December 2003, which raises some of the issues this article addresses.

¹ A similar concern about our lack of understanding of the nature of the digital medium is manifest in JEROME MCGANN, *The Rationale of Hypertext*, in *Electronic Text: Investigations in Method and Theory*, ed. Kathryn Sutherland, Oxford, 1997, pp. 19-46, where he spells out the various conceptual and practical steps which need to be taken during the creation of networked archives: «First, we have to begin transforming our existing paper-based archives of material into usable electronic forms (textual as well as graphical). Second, we have to move our current work into electronic venues that enhance both the range and the effectiveness of what we do. Finally, we must begin experimenting with the critical opportunities that these new media hold out to us».

tion on what we demand from it. This represents our quandary: we need to articulate our digital demands unencumbered by the limits of our knowledge and understanding of the present, even while we are deeply conditioned by our familiarity with older information systems, notably the print medium, with which, moreover, we need to ensure continuity at the same time. One of the chief challenges confronting humanistic scholars is to try and be explicit about their demands for the design of electronic research tools. Rather than restricting their role to that of being mere users of standard applications made possible by the informational technologies, scholars need to take a hand in actually shaping applications.

In this process of raising consciousness – among scholars as well as more generally – of the nature of the digital medium, book historians may be of assistance. Through its application on the World Wide Web, electronic text represents the next major transformative technology in the history of textual transmission after Gutenberg.¹ A book-historical perspective allows analysis of the historical continuities and discontinuities in the transmission cycle of texts, from their production via their distribution to their consumption. Analysing historical continuities and discontinuities can enlighten our perception of the new phenomena we are confronting.²

Examining the information technologies in a historical context should enable us to recognise parallels between the printing revolution and the current digital revolution as well as spot those characteristics of the digital medium that point at essential differences compared to print. That it is a typographic medium, capable of transmitting books in a digital form, does not make the World Wide Web simply a printing press in a new guise. The nature of textual transmission over the web differs fundamentally from analogue textual transmission, and it is likely that computer-based research, too, differs from research which takes place in a strictly analogue environment.

It is almost impossible to begin to grasp the ubiquitous digital

¹ 'Transformative' should not be read in Elizabeth Eistenstein's sense, but in the sense in which MICHAEL HEIM uses it in *Electric Language: A Philosophical Study of Word Processing*, New Haven and London, 1987, ch. 2.

² Conversely, a study of the digital forms of textual transmission can throw an unexpected light on earlier technologies and offer unexpected insights in the history of the book.

developments in all their ramifications and consequences fully on their own terms – the chief problem being that it is not at all clear what these terms are –. In addition, we are confronted with an unprecedented convergence of ‘media’ – or modalities – (text, image, sound) in bits and bytes, at the same time as we can observe a similar convergence of functions. In one and the same digital environment we consult library catalogues, do our shopping, make ticket reservations, apply for a new driver’s license, chat, email, read newspapers, download music, read e-books and watch movie clips. In this whirlpool of hypermedial developments a book-historical perspective offers a coherent and familiar perspective. It may not have a ready explanation of every single phenomenon, but it offers analogies, comparisons, and a disciplinary rigidity that is often lacking in the discussion of the digital revolution. A book-historical perspective is a useful one also because book history as a discipline is centrally concerned with the dissemination of knowledge, which is also at the core of the digital revolution. Even those who impatiently shrug off the history of the book as a burdensome relic of a superseded technology cannot evade the continuity that runs from script through print to digital text. It is no coincidence, and very useful – often even necessary – that book terminology, together with the comparisons that it invites, remains pervasively present in all discussions of the digital revolution: from web pages to electronic publishing. It is as well then to embrace the historical perspective as an opportunity for an analysis of this terminology, in order to gain a better understanding both of what it is that we are replacing and of what it is that is replacing it.¹

That the digital medium is about to transform the nature of our knowledge, and the way we transmit this knowledge, is not a realisation greeted with universal enthusiasm.²

It does seem to be the case that our respect for the word diminishes along with every new technology for transmitting it that is

¹ This point is also argued in ADRIAAN VAN DER WEEL, *Bibliography for the New Media*, «Quaerendo», 35, 1-2, 2005, pp. 96-108.

² SVEN BIRKERTS in *The Gutenberg Elegies: The Fate of Reading in an Electronic Age*, New York, 1994, for example, asks attention for the discrepancy between the binary bent of the computer and the essentially narrative nature of most humanistic pursuits; he is one of the most vocal pessimists when it comes to judging the impact of computers on society.

introduced, beginning with manuscripts, ranging from the codex to the digital medium. In regard to the consumption of text, a shift can be traced from intensive reading to extensive reading, and from extensive reading to merely 'using' a text.¹

Irrespective of the question whether these are 'good' or 'bad' developments, and whether such pessimism as that voiced by critics like Sven Birkerts and George Steiner² is appropriate, it is obvious that they are not developments that can be halted. In the scholarly field at any rate the number of digitally aided research programmes is on the increase. But the scepticism often expressed by authoritative voices in the field remains useful and even necessary. It urges scholars to consider carefully the rationale and the potential benefits that may justify the use of digital research tools.

As we have suggested, computers may transform established research methodologies because they are capable of answering different types of questions. Despite the obvious fact that computers do not have an inherent intelligence, they are certainly capable of performing certain functions much more effectively than human beings. This capacity is mainly based on the speed with which computers make calculations, the size and reliability of their memory, and on the possibilities they offer for the storage of vast amounts of data. Use of computers is especially effective in research projects which deal with quantifiable information. Important characteristics of digital media which will undoubtedly have an impact on their position in the scholarly world are 1 the fact that texts can be made intelligent, 2 the fact that the interface of electronic texts can be personalised, and 3 the fact that digital data can be turned into self-learning research systems, adding value to the data in unforeseen and unforeseeable ways. Other defining qualities include 4 the flexibility and the speed with which electronic data can be queried and distributed.

¹ CHRISTIAN VANDENDORPE, *Du papyrus à l'hypertexte: Essai sur les mutations du texte et de la lecture*, Montréal et Paris, Éditions du Boréal-La Découverte, 1999: «On éprouve parfois une certaine hésitation à parler de lecture à propos d'un hypermédia – et nous avons à maintes reprises employé ici même le mot 'usager' là où l'on se serait attendu au terme de 'lecteur'. Cela ne tient pas seulement à la dimension spectacle de ce nouveau média, mais aussi à la façon particulière dont on entre en relation avec lui» (p. 221).

² See, for example, *The Retreat from the Word*, in *George Steiner: A Reader*, Harmondsworth, 1984, pp. 283–304.

The fluidity of the digital element has been hailed as flexibility as well as anathematised as instability. Due to a centuries-long habituation to printed text, readers are currently accustomed to regarding texts as reliably stable in multiple, (near) identical copies. Fixedness, linearity and closure are characteristics of the book that are thrown into sharp relief by the latest digital inventions. Digital text has no physical existence. Always residing in a virtual realm, it is unstable, in form, in content, and even in its very existence. In this sense, electronic text reinstates some of the characteristics of chirographic text: instability, fluidity, and the coexistence of multiple readings. On the other hand, as we shall see later, instability can also be viewed as – or turned into – a major strength.

As regards the capacity of the digital medium to promote scientific innovations, a more important characteristic is the possibility for electronic texts to be made intelligent. Computers are capable of processing texts in many and highly sophisticated ways, provided, that is, that they can be instructed about the structure and contents of the texts they are asked to process. Researchers can enrich the digital versions of the texts by adding their analysis of the structure and the intellectual contents of the material to the digital documents themselves. If the contents of a text are encoded accurately in a machine-readable form, this will allow the documents to be queried for the information they contain beyond free-text searches. Moreover, a standardised encoding scheme will make it easier for researchers to recognise efficiently the structure and the contents of a document. Various mark-up schemes have been developed to encode structural and analytical information about electronic texts, and the most prominent amongst these for humanities use is the Text Encoding Initiative (TEI). Adopting a community-based, platform-independent encoding scheme such as TEI is of course a prerequisite for international co-operation to emerge.

If the scholarly world is to benefit fully from the potential of the digital medium, it is pivotal that a consensus is reached about the definitions and usage of electronic texts and of mark-up. Intelligent information is capable of matching itself with known interest profiles, but this may also pose a possible complication. Particular encoding strategies are normally geared towards a single well-defined and pre-determined set of research goals. That there are many different interpretations of the nature and level of encoding that

should be applied to any given text is therefore not surprising. The co-existence of differing ways of encoding will in no way hinder the technical operability of individual projects, but the usefulness of some analytical encoding may prove limited in an interoperative environment. In other words, given that it is both possible and desirable to re-use electronic texts beyond the context in which they were originally prepared, intellectual interoperability, both synchronically and diachronically, is an essential object of all encoding. In order to extend the use of a single contribution beyond the original purpose for which the document is created, it is necessary that researchers, whilst considering their editorial choices, take stock of a number of more general ways in which the encoded document may be used. This is why it is so important to attempt to predict the questions that future researchers may wish to ask of the resource. The situation of the scholar who prepares an electronic version of a text might be compared to that of the traditional annotator, who adds certain textual or explanatory notes. In most cases, enriching a text by making use of critical encoding takes place with a very specific set of users in mind.¹ But part of the plight of the electronic edition is that, as we have seen, the demands of future users are not yet known.²

An additional potential complication which should be investigated concerns the manner in which the encoded material ought to be presented to the reader-user of the material. In more general terms, a direct consequence of the fact that the electronic text is a relatively new phenomenon is that its interface is not yet firmly established. In

¹ In *Annotating a Text: Literary Theory and Electronic Hypertext* (in *Electronic Text: Investigations in Method and Theory*, ed. Kathryn Sutherland, Oxford, 1997, pp. 47-66) Claire Lamont refers in this respect to the concept of the implied reader, derived from reader-response criticism.

² A too narrowly defined encoding strategy may offer one particular interpretation of a text, which is thus being privileged over other possible readings. A feature which occasionally obstructs pluriform interpretations of a text is the fact that the most ubiquitous markup language, XML, needs to adhere to a single hierarchical interpretation of the text. Certain textual qualities will not easily fit such a strictly hierarchical form. Similarly, CLAIRE LAMONT notes in *Annotating a Text* that it has often been put forward that «annotations tend to diminish a text, by limiting the interpretative potential in favour of one reading, or at any rate a lesser array of possibilities than the plurality of the text might demand» (*ibidem*, p. 56). Creating elegant possibilities for incorporating multiple hierarchies, and, consequently, multiple viewpoints, remains an important priority in the further development of markup schemes.

contrast, the 'interface' of the codex, has, over the course of several centuries, developed into what has been called a perfect «reading machine».¹ We are all experienced readers, intimately familiar with the typographical conventions used in printed books, and able to determine instantaneously what kind of information is presented by the book and where the relevant information in the text is to be found. In contrast, many people will have had occasion to lament the absence of such instantaneous and spontaneous familiarity from documents on the World Wide Web. When investments have been made in the enrichment of a text, it is important that these additions should be transparent to the user in an appropriate way. Even when a considerable depth of encoding is present, there might be a possibility that texts are not fully utilized by researchers, as they may not be conscious of the level at which the text has been encoded – even of the fact that analytical encoding has been added in the first place –. It should be self-evident what information the resource contains, and the resource should offer a natural and intuitive way to access that information. For this reason, indications should be present of the type of analytical information that has been encoded. Such a signalling should inform the user of the resource about the type of questions that may be asked from the material. Since the depth and the variety of the encoding has a direct influence on the ways in which the repository can be queried, it should be worthwhile to stimulate research on how multiple hierarchies and points of view may be represented in electronic scholarly editions. Still, amid all these considerations, it is important not to lose sight of the costs of the investments in relation to the potential advantages that can be procured. There will be a point where the law of diminishing returns starts taking its toll.

Additionally, electronic texts have the intriguing quality that their typographic appearance is not fixed, and that it is even possible to select which parts of the text are going to be shown, and in what order, since XML is characterised by a complete separation of structure and layout. This is a feature that calls in question the entire notion of textuality. There has been a long tradition of regarding content and form as two sides of one medal: the content needs to be reflected

¹ By PAUL VALÉRY in *Les deux vertus d'un livre*, in *Oeuvres*, vol. 2, Paris, 1960, p. 1249.

in the form, and the form confers authority on the content. Don MacKenzie argues in his *Bibliography and the Sociology of Texts*¹ that «the material form of books, the non-verbal elements of the typographic notations within them, the very disposition of space itself, have an expressive meaning in conveying meaning». MacKenzie's argument implies that form is not a transparent layer. It is – to a lesser or greater degree – part of the text's meaning. The view of texts as «recorded forms» (p. 12) in which content and appearance are inseparable appears to some extent to be challenged by texts which are distributed digitally. The claim that the material form of the text has a determining impact on the text's meaning ought of course to lead to the conclusion that a new text is created each time that the same 'content' is presented in a new form. However that may be, the essential 'formlessness' of electronic texts severely complicates this view of textuality. It is perhaps more useful to view a text as an immaterial entity with any number of concrete 'incarnations' in specific forms.² In addition, it appears reasonable to distinguish those formal features which are essential for conveying the basic meaning of this immaterial entity (such as the shapes of characters, and, arguably, the spaces between the words) from those features which serve additional structuring, navigational or aesthetic purposes.

A possible effect of the division between form and content is that the material can be presented to different users in different ways, answering their individual needs. Different users may require a different presentation of the material. Instead of forcing users to adapt to the technology, as in the case of the printed book where the form and the context are fixed and indelible, the electronic text can flexibly present itself in various formats, adjusting itself to the user. An undergraduate student is not necessarily interested in the same type of information as the specialised scholar.³ Given a sufficient aggregation of sufficiently structured data in a given subject

¹ London, 1986; expanded edn., Cambridge, 1999, p. 7.

² Cf. the discussion of a number of ways to regard the nature of textuality by N. KATHERINE HAYLES in *Translating Media: Why We Should Rethink Textuality*, «The Yale Journal of Criticism», 16, 2, 2003, pp. 263-290.

³ For an imaginative account of digital possibilities in this respect see ROBERT DARNTON's, *Lost and Found in Cyberspace*, «The Chronicle of Higher Education», 12 March 1999, pp. 134-135; also published online, at <http://www.historians.org/prizes/gutenberg/rdarnton.cfm>.

area one could imagine a database capable of dynamically generating web pages which answer a particular information need with greater precision than printed texts could do. The scope of printed texts is fixed, and will more often than not be found to be too great or too small in relation to the question being posed. A well-constructed database would be capable of providing the exact answer to a single question, as the relevant facts may be easily retrieved and combined to provide the required information. This way, contact with the user can effectively be personalised, and it is likely that such personalisation will have a strong impact on the way knowledge is communicated. This represents the fluidity of the digital element turned into a most welcome flexibility.

Finally, a feature of the digital medium which clearly sets it apart from the book is that it can 'learn', in the sense that a series of interactions with users can serve to adjust – and improve – its performance. The fact that a digital resource, which has been programmed by the resource creator, is capable of 'learning' (in the sense that it allows the process of interaction with the user to refine the existing programming) is a distinctive feature in comparison with a book or other printed media. Logging queries is a straightforward example of this, with which we are familiar from sites like Amazon.com, who greet us with our name and personalized recommendations. But there are other possibilities, more like developing neural networks. A self-learning system centrally involves the process whereby knowledge derived from actual usage of the system can be put back into the system.¹ Logged and stored in a separate section of the database, information on scholarly interests can be processed in such a way that it can strongly improve the effectiveness of the resource's architecture and interface. Given a sufficient amount of programming and statistical analysis, the self-learning system should be able to act as an autonomous 'consciousness' which can independently suggest routes towards a better performance of the networked resource.

The potential benefits of the digital repository can clearly be envisaged at this stage, but the book trade correspondence project at Leiden University is currently only in its infant stage. Some correspondence by the nineteenth-century Dutch publisher Koenraad Fuhri, held by

¹ The visual voting system which is being developed by Gerhard Jan Nauta of the University of Leiden in his Art.Similarities project is an interesting application of this.

the Leiden University Library, has been made available online, but so far as static HTML only. As letters are being transcribed and encoded, guidelines are being developed for the project. Transcriptions of further nineteenth-century correspondence held in the Sijthoff and Bohn archives in the Leiden University Library, with publishers in Britain, France, and Germany, are in the process of being added. Even in their current modest state these transcriptions yield a wealth of information about the Dutch international book trade, for example regarding the trade in publication and translation rights; the sale of illustrations; ideas for co-productions; the practice of international banking; the logistics of the trade, etc.

However, a database which provides access to book trade correspondence held in the Leiden University Library must finally be regarded as a mere building block. It is intended as the first of many similar building blocks, or modules, which may be welded together to form a larger resource for book-historical research. For example, nineteenth-century Dutch book trade correspondence regarding the scholarly publishing industry may be supplemented by that of the eighteenth century, or by general nineteenth-century Dutch book trade correspondence. As the Dutch material in the repository grows it could be used to examine, for instance, the causes and nature of the decline of the international significance of the Dutch international book trade in the period of the second half of the eighteenth and the first half of the nineteenth century, and of its slow renaissance from the second half of the nineteenth century.

But to make this repository into a truly invaluable resource it would have to be linked also to similar resources covering many periods and places outside of the Netherlands: seventeenth, eighteenth, nineteenth-century German, French, Italian or British book trade correspondence, regarding scholarly, literary or any other types of publishing. Taken up internationally, the project could result in a searchable database in which both national and international book trade networks could be explored and even virtually recreated.¹ If we add to this a way to harness any knowledge and insights produced by centralised querying of the resource, the result would be a very powerful

¹ Scholarly correspondence and networking is a burgeoning field of research, with many research projects having just begun or being in the start-up phase, covering all periods from the late Middle Ages to the present.

research tool which is ideally fit for the exploration of international, interpersonal, cross-temporal and inter-corporate relationships.

New research initiatives can greatly benefit from the result of such a collaborative research effort; as the inflow of information accumulates, the value of the resource will expand accordingly. Besides the availability of relevant materials, and investment in time, scientific innovation depends more than ever on interdisciplinary and international co-operation. This book trade correspondence project is designed to provide an opportunity to maximise interdisciplinary and international co-operation.