

## PhD skills training on Digital Source Criticism -

## Aid - Assignment A\_ literature list with abstracts

List of reviewed and summarized literature on *Digital Source Criticism* by PhD training Unit Digital History and Hermeneutics in preparation of a skill training on *Digital Source Criticism* held on 30/31 October 2017 at the Digital History Lab – Centre for Contemporary and Digital History Luxembourg.

Literature list on the Topic of Digital Source Criticism	Abstract of 300 words
Alina Bothe, Zeugnisse Überlebender der Shoah in den digitalen Medien. Eine quellenkritische Reflexion http://www.zentrum-juedische-st udien.de/person/bothe-alina/pu blikationen/	In her article "Zeugnisse überlebender der Shoah in den digitalen Medien. Eine quellenkritische Reflexion", Alina Bothe tries to give an overview of the different collections of digital sources (voice and video or only voice) of the Holocaust. The first collections of statements of holocaust survivors date back to 1942, when soviet soldiers interviewed these people. Two years later, Jewish Historical Commissions were formed in several locations after the liberation by the Red Army and they collected and wrote down the reports of the surviving jews. Many different collections were established during the following decades. In 1994, Steven Spielberg has founded the "Shoah Foundation". "All ihre Leidensgeschichten, als Videointerviews aufgezeichnet, sollten in einer neuartigen Datenbank gespeichert, aufgeschlüsselt und sinnvoll verknüpft werden – ein kollektives Gedächtnis des Holocaust für alle Zeit.", said Spielberg 1996 about the by survivors and researcher heavily criticized Shoah Foundation. Several interview projects were conducted during the early 2000s, for example in Germany and in the United states. Bothe quotes Alexander von Plato to show the importance of these interviews: "Immer wieder wurden wir durch die Interviews auf historische Sachverhalte gestoßen, die bisher von der Historiografie nicht wahrgenommen oder in einem anderen Licht gesehen wurden." A second part deals with audiovisual evidence in general. She talks about source criticism of audiovisual sources and highlights seven points that are among others important for analyzing these interviews. Bothe refers to Peter Haber when she explains the difference between digital sources and digitized sources. She continues by talking about the access to the digital sources and argues that a restriction has to be done to prevent e.g. manipulation. She concludes with a look to the future and new technologies, for example 3D-projections of survivors who can talk and answer questions.
Marnix Beyen, A Higher Form of Hermeneutics?: The Digital	Rens Bod's optimism with regard to digital research tools also seems to justified for the field of political history. In particular, these tools will enable

Humanities in Political Historiography; BMGN - Low Countries Historical Review. 128(4) https://www.bmgn-lchr.nl/article s/abstract/10.18352/bmgn-lchr.9 349/ us to ask questions that were hitherto unthinkable, and try to answer them on an unenvisaged scale. Unlike that which Bod suggests, however, this development will not bring us closer to revealing some alleged universal patterns in history and therefore herald a new era of Positivism. On the contrary, the digital research tools will show us manifold differences, both diachronic and synchronic, in the way (groups of) political actors identified themselves and gave meaning to the world surrounding them. Moreover, they will enable us to relate these differences to a broad range of social variables. If we really want to test the validity of these relationships however, we will have to actually interpret the texts and read them hermeneutically in their precise historical contexts.

Éric Brian, L'HORIZON NOUVEAU DE L'HISTORIOGRAPHIE EXPÉRIMENTALE. Revue d'histoire moderne et contemporaine, 2011/5 n° 58-4bis | pages 41 à 5 https://www.cairn.info/revue-d-h istoire-moderne-et-contemporai ne-2011-5-page-41.htm

Marie-Anne Chabin. Document trace et document source. La technologie numerique change-t-elle la notion de document ?. Revue I3 - Information Interaction Intelligence, Cepadues, 2004, 4 (1). https://archivesic.ccsd.cnrs.fr/sic

\_00001020/document

The French word « document » is commonly used in two ways: first as the trace produced deliberately by a human activity, written down and materialized; second, as a source of information, of potential knowledge. In the digital age, the medium is becoming a complete hardware and software range and need a new definition. But the documents still have the double function of recording transactions and ideas, and offering answers to the readers' questions. However, the technology has to ensure that the content is fixed and reliable, and the information objects are maintained and preserved.

Nicolas Delalande, Julien Vincent, PORTRAIT DE L'HISTORIEN-NE EN CYBORG, Revue d'histoire moderne et contemporaine, 2011/5 n° 58-4bis | pages 5 à 29 DOI: 10.3917/rhmc.585.0005 https://www.cairn.info/revue-d-h istoire-moderne-et-contemporai ne-2011-5-page-5.htm The use of digital technologies within the context of historical research and practice poses a challenge to the epistemological foundations of the discipline itself. In contrast to the established systems of knowledge creation and transmission developed during the nineteenth century, modern tools and methods compel historians to reevaluate their craft in light of the evolving nature of their field. The authors employ two metaphors for the historian to illustrate this evolution: first, the self-portrait of the historian as craftsman (from French scholar Antoine Prost), whose tools of the trade include books, card catalogs, and other archival materials. The second, historian as cyborg, spends most of her time in front of a screen; the computer has become both an extension of her body but also of the body of knowledge itself. Data exists in abundance, amidst the ubiquity and immediacy of the Internet, and its creation and transmission has shifted from concentrated, peer-reviewed sources to a wider audience of amateur historians, bloggers, news websites, digital archives, and more. Neither metaphor for the historian can encompass the evolution of the discipline in its totality, nor does historian-as-cyborg imply an inherent bias toward trending identities of scholar-hacker or the programmer historian. Rather, they serve to situate the field within the evolving context of the digital era. As such, the article begins with an overview of the digital revolution as a part of a much longer history of computing, from the automata of Pascal and

Leibniz during the seventeenth century, to the development of information theory and cybernetics during the Second World War and the Cold War. Finally, the authors discuss the emerging forms of scholarly practice within the digital era, and reference various tools and other *applicata* in use by modern historians.

Dorofeeva, Anastasia, Towards Digital Humanities Tool Criticism, Master thesis, Leiden University, 2014,

https://openaccess.leidenuniv.nl/handle/1887/29597

In this paper we have argued that the recent conceptualisation of the tools developed in the digital humanities as theoretical objects that can 'speak' for themselves is a significant achievement. Digital tools thus enter the humanistic discourse as objects to argue about and analyse. The development of peer-review allows assessing the scholarly arguments of the tools, undermining the dominance of the written reports. However, tools are essentially not neutral and also have cultural and socio-political implications, what has been explicitly articulated in the field of software studies, critical code studies and platform studies. Software constructs ways of seeing, knowing, and doing, often unbeknown to the user. This is also true for the digital humanities tools. Developed in the scholarly context, digital humanities tools are claimed to be interpretive and theoretical. The arguments of the tools are not limited to their scholarly purposes. Digital humanities tools also have cultural and socio-political implications that can influence the research practices. It is the aim of tool criticism to critically respond to these arguments by examining the interface or by inspecting underlying source code. Better understanding of the technologies being produced as support for the research can reveal truth about the practices of research. As Tara McPherson writes, We need database literacies, algorithmic literacies, computational literacies, interface literacies. We need new hybrid practitioners: artist-theorists, programming humanists, activist-scholars; theoretical archivists, critical race coders. We need new forms of graduate and undergraduate education that hone both critical and digital literacies. We have to shake ourselves out of our small, field-based boxes so that we might take seriously the possibility that our own knowledge practices are normalized, modular, and black boxed in much the same way as the code we study in our work.170 Large-scale institutions are formalising the existing research practices and prioritise certain developments. For instance, an ontology of digital methods in humanities is being developed by the giants DARIAH-EU and NeDiMAH.171 However, the future development should not be governed solely by large infrastructures and funding agencies. In words of Christine Borgman, '[t]his is an opportune moment to think about what we should be building.'172 Generally, digital humanists are 170 T. McPherson, 'U.S. Operating Systes at Mid-Century: The Interwinning of Race and UNIX', in L. Nakamura and P. Chow-White (eds), Race after the Internet (New York: Routledge, 2012), 35. 171 Fondation europeenne de la science, Network for Digital Methods in the Arts and Humanities (NeDiMAH) Research Networking Programme (Strasbourg: European Science Foundation, 2012). 172 C.L. Borgman, Scholarship in the Digital Age: Information, Infrastructure, and the Internet (Cambridge: MIT Press, 2007), XVII. 36 eloquent in describing the transformational powers of technologies. The visionary character of digital humanities has been observed and analysed by Patrik Svensson.173 Suggested tool criticism can help make the interaction between human researchers and computers more transparent and thus encourage the development of research tools that make their assumptions clearer to the user. As it was put by Adam Kirsch, criticising digital is the intellectual responsibility of humanities. 174 This applies to the digital humanities in particular, where digital tools are one of the most extensible assets.175

Jasmijn Van Gorp, Sonja de Leeuw, Justin van Wees, Bouke Huurnink; DIGITAL MEDIA ARCHAEOLOGY; DIGGING INTO THE DIGITAL TOOL AVRESEARCHERXL; VIEW, Journal for European Television History Culture, Volume 4, 2015 http://viewjournal.eu/archaeolog ies-of-tele-visions-and-realities/di gital-media-archaeology/ Digital technology has tremendously increased available information about human activities, mostly during the historical periods and especially after the birth of Internet and Web. This abundance of information has completely reformed the way empirical humanities work and is having a similar impact on the research process of historians.

Current article discusses the epistemological and methodological challenges posed by the availability of new datasets and the use of new tools for them. As a case study a statistical search tool AVResearcherXL is presented from the perspective of self reflective user experience.

AVResearcherXL is an exploratory tool intended for media studies research and provides query interface to metadata databases of Dutch public television and radio programmes and a selection of newspapers. The search results can be visualized and compared to provide a insight into past processes in interest.

By analysing the work 'television' the article provides insight into how the interpretation of statistical output is highly dependant on detail in case of narrative construction. The notion of media archaeology is brought up as way to analyse the sources, their retrieval technologies and also statistical tools. The articles presents AVResearcherXL as a explorative and hypothesis creative tool. It also suggests that this might be the case of most statistical tools for historical research focused on narrative creation.

J. Hughes / Karl Lang:
Transmutability: Digital
Decontextualization,
Manipulation, and
Recontextualization as a New
Source of Value in the
Production and Consumption of
Culture Products. Proceedings of
the 39th Hawaii International
Conference on System Sciences
(2006). pp. 1-10.
https://pdfs.semanticscholar.org
/42c1/6ffce5745a4cfee1aba0cbe
521e45e9fd363.pdf

This article studies the transmutability or easy alteration of digital culture products and its economic value. In digital culture the audience creates value, which derives from a shared experience in a social process, and the community takes ownership and control over this culture. Whereas analog products are considered property of a single firm subject to copyright and technological barriers, digital culture goods are easily reproduced and distributed, and undergo endless modification, extension and recombination. Non-cost based pricing such as value-based pricing needs to counterbalance the near-zero marginal cost for digital culture products. After an evolution from art and music as public goods to the intellectual property of the music industry, fan communities are now transforming music and art back into public culture goods. Consumers of digital culture products can become significant creators and producers themselves. On the one hand, transmutability can be consumer-driven through unbundling, re-bundling, portability and distribution, personalisation and re-contextualisation. On the other hand, creator-driven transmutations include editing and re-editing, an extension of the original digital culture product, and recombination, remixing and sampling. The A2B2C (Artist to Business to Consumer) value chain in the traditional music industry, has now become an A2C (Artist to Consumer) chain where virtual communities of common cultural interest have access to digital products, and discover new products and rare works in a P2P (Peer to Peer) network. These derivative works have become widely available through IT at a low cost. Digital culture goods can therefore contribute to the value of the original products and the general brand or franchise, and open up new segments of the market. The challenge is to balance proprietary and open development models into new open source production models where transmutability is essential to benefit both producers and consumers. The

compensation of creators and estimation of the value of these new contributions remains unresolved.

Charles Juergens, The Scent of the Digital Archive; Dilemmas with Archive Digitisation; BMGN -Low Countries Historical Review. 128(4), pp.30–54. DOI: http://doi.org/10.18352/bmgn-lc hr.9348 The article recognises the importance of digitalisation for preserving and studying the past, but also wants to remind us that digitisation is changing the outlook of the archive and the methods and practices used by archivists and researchers. The author highlights four problems: (1) With digitisation a loss of (contextual) information is inevitable. Through scanning, using OCR and adding metadata analogue sources are digitally captured, but the choices that are made with regard to the metadata; the fact that search engines don't preserve the hierarchy of traditional archives; and that physical aspects of a source (paper structure, watermarks, the method of binding, etc.) can't be captured can become problematic issues. (2) Secondly it is important to understand that the analogue and the digital version of a document are not the same thing. Something that is often overlooked according to the author. The digital version is a copy of the original analogue document, and both should be treated as different types of sources as they come with their own heuristic and methodological approaches. (3) As a third point, the disappearance and marginalisation of analogue archival material is taken into account. In some cases the original objects disappear after digitisation, and although the author thinks it is important to consider if archival material needs to be preserved once it is digitally available, the traditional archive also has its value (i.e. the earlier mentioned 'physicality'). Another risk is that archives that aren't digitised disappear "from our active cultural memory" because these analogue archives are often overlooked by researchers, creating the idea that they don't exist. (4) Lastly, enormous amounts of time and money go into digital infrastructure (digitising archives, maintaining online accessibility), as well as the upkeep of analogue archival material, making digitalisation a very expensive undertaking. The above-mentioned problems make it necessary to rethink the idea of 'mass digitalisation', and lays an emphasises on critical reflection about which archives should be digitised and what the reasons are for doing so.

Andreas Fickers (2012) 'Towards A New Digital Historicism? Doing History in the Age of Abundance.' VIEW Journal of European Television History and Culture, 1(1).

http://rdbg.tuxic.nl/euscreen-ojs/index.php/view/article/view/jethc 004

This article offers a historiographical overview of the discipline of history and insights in a number of basic archival principles, as the reference frame for problematizing the impact of digital technology on the craft of the historian. It argues that the contemporary hype in digitization and dissemination of our cultural heritage – especially of audiovisual sources – is comparable to the boom of critical source editions in the late 19th century. In both contexts the selection and aggregation of single documents into new entities creates problems of decontextualisation, as the documents can no longer be perceived in the order and context that was shaped by its creators. At the time, the dramatic rise of accessibility to and availability of sources went hand in hand with the development of new scholarly skills of source interpretation. The critical assessment of the origin and authenticity of a document, the principle of crosschecking different accounts of the same event, and the orientation towards the archive as the main habitat of the historian, are all elements that contributed to the institutionalization of history as an academic profession. One would expect that the digital turn would require a similar paradigm shift, wit with a curriculum that includes enough training in computational skills to understand the bias of search engines, the manipulation that occurs with conversion, besides the more generic economic and political factors that determine the prioritazion of digitization and the market of copyright protected material. In particular the

use of audiovisual sources in academic culture without specific references to the context in which they are produced is problematic. How to check the authenticity of an interview recording that has been published on youtube without some knowledge about digital manipulation of image and speech? Another problem that is identified, is dealing with the abundance of data that is produced by social media and that will gradually parallel the scale of our analog archives. The essay concludes with presenting the research portal for the history of European television, EU Screen (http://www.euscreen.eu) as the perfect playground to develop a new kind of digital historicism. Pascal Föhr, "Poster, Historical Source Criticism in the Digital Age'," Historical Source Criticism, 31. März 2015. https://hsc.hypotheses.org/uberhistorical-sourcecriticism https://hsc.hypotheses.org/328 Hjorland\_ Information and This paper recognizes information literacy as a research skill containing Digital Literacy different paradigms. The vital part is critical thinking and theory of http://revistas.ua.pt/index.php/p knowledge. From the point of view academic institutions, e.g. Library and rismacom/article/view/684 Information Science (LIS) the information and digital literacy enables to make rational decisions in overloaded information ecology. The article emphasizes not only the functions of the scholarly communication system considered from sociological and epistemological perspectives, but also on cognitive effect of critical reflexivity. From the perspective of Library and Information Science (LIS) it should be defined in relation to the research field of LIS: What we can offer and what we should offer in relation to this concept? In addition, the paper depicts in detail the scholarly communication system (UNISIST). The UNISIST model can be modify itself for the domain analytic approach. Moreover, this graph simply displays a classification of information sources in primary sources, secondary sources and tertiary sources, which reflects both chronological orders and bibliographical relations between kinds of sources. The author Birger Hjørland also outlines the question of critical thinking and source criticism, which acknowledges that different interests may be uncovered in various ways.

Carl Lagoze, Big Data, data integrity, and the fracturing of the control zone, in: Big Data & Society (2014), July–December 2014: 1–11.

http://bds.sagepub.com/content/ spbds/1/2/2053951714558281.fu ll.pdf In this paper, the assertion of "Big Data" being a "paradigm shift" in science is being discussed. Lagoze firstly challenges the definition of Big Data by Laney as 3Vs(Volume, Velocity and Variety) and the other definition by Mayer-Schonberger for stating the "allness" property and the shift in analytical technique from causality to correlation. He claims that these two definitions have not successfully shown Big Data as a revolutionary step in science.

He then draws a line between "Lots of Data" and "Big Data" by saying that a paradigm shift in sciences is supposed to affect the epistemological and sociotechnical aspects not only methodological in the case of the former. Some papers are mentioned in astronomy and biology which challenge the characteristics of "completeness" and "no more searches for causalities" by discussing that they cannot be achievable.

Later, the concept of data integrity is introduced as a concern with the growth of "Big Data" usage in science which deals with the questions of data provenance and, origination and trust which is a necessary component of credible science. In order to discuss data integrity, the concept of "control zones" is defined with the use of "library memes" to depict clear boundaries in data control by illustrating the walls of traditional libraries. By the growth of Web and internet, these so-called control zones are diminishing in the use of Big Data. The creation of meta-data –rich archives of social sciences such as ICPSR and UK Data Archive, the use of social network data, and crowd source citizen science are the examples of the fracture in control zones in scientific data and demonstrate the undermining of control zones with the use of Big Data which will leads to a paradigm shift due to the sociotechnical changes in data gathering methods.

Moreover, he suggests an epistemological approach towards Big Data which should raise the awareness about "Big Data" integrity, biases and overfitting, and a methodological approach which suggest the control over the provenance and reliability of data by technological methods.

Latham, S. "New Age Scholarship: The Work of Criticism in the Age of Digital Reproduction." New Literary History, vol. 35 no. 3, 2004, pp. 411-426. Project MUSE,doi:10.1353/nlh.2004.0043 In defending the book and its protocols of reading against the rise of the digital archive, Sven Birkerts worries that "in the theoretically infinite database, all work is present and available—and, in a way, equal." Rather than lamenting this fact, this essay argues that we might recognize such availability as the condition of possibility for cultural studies itself. After first theorizing about the "frenetic" reading practices generated by the digital archive, this essay then engages in an experiment: tracing the use of the word "imperialism" through the digitized version of a British weekly entitled The New Age. The results not only re-embed this now monolithic term in a more complex and unstable historical context, but also point to a new type of synchronic and non-linear critical practice.

Simon Margulies. Digitale Daten als Quellen der Geschichtswissenschaft. Eine Einführung. Hamburg 2009. https://dg.philhist.unibas.ch/fors chung/abschlussarbeiten/details eite/?tx\_x4equalificationgeneral\_pi1%5BshowUid%5D=5349 (no digital version that is directly accessible)

Quellen sind das tägliche Brot des Historikers. In Computersystemen liegen sie ihm in digitaler Form vor. Diese Systeme werden durch Konzepte der Informatik gesteuert. Hier wird die Frage beantwortet, was ein Historiker von Informatik verstehen muss, um seine Arbeit an digitalen Quellen ausführen zu können. Wie beeinflussen die Konzepte der Informatik Entstehung, Suche und Überlieferung von Quellen in Computersystemen? Wie wirken sie sich auf die Methode des Historikers aus? Dieses Buch ist der Werkzeugkasten des Historikers für seine Arbeit mit digitalen Quellen.

Pierre Mounier, OUVRIR L'ATELIER DE L'HISTORIEN. MÉDIAS SOCIAUX ET CARNETS DE RECHERCHE EN LIGNE. Revue d'histoire moderne et contemporaine. 2011/5 n° 58-4bis | pages 101 à 110 https://www.cairn.info/revue-d-h istoire-moderne-et-contemporai ne-2011-5-page-101.htm L'article met en avant les avantages de l'usage d'instruments informatiques innovants pour le travail de l'historien. Ces outils, pouvant être à la fois une boîte à outils et ses moyens de publication, ont un caractère déconcentré, horizontal et immédiat des pratiques de communication. Mounier incite les historiens à « travailler à atelier ouvert », à mener un carnet de recherche en ligne, ce qui leur permet ainsi d'avoir une très grande liberté d'expression. Le grand enjeu est de communiquer très rapidement des données sur un portail scientifique, tout en se donnant la liberté de se contredire et de se déjuger. Ces carnets de recherche se diffèrent des publications traditionnelles principalement par la fusion entre la communication interne et externe dans un même espace éditorial. Ils s'adressent à un lectorat hybride, qui a la possibilité de dialoguer directement avec l'auteur. Le carnet de recherche, pouvant par ailleurs être collectif, libère l'écriture de tout le poids du formalisme académique. Il est ainsi capable de libérer la créativité de l'auteur et de motiver davantage l'écriture. Travailler à atelier ouvert évoque un aspect de la recherche « en train de se faire ». Ce travail peut être fait sous forme de notes de lecture à caractère incisif, donnant compte de l'état des sources en toute rapidité et liberté de ton. Chaque auteur jouit d'une grande flexibilité, lui permettant de définir pour lui-même l'usage de son carnet. La multiplication de changements de points de vue et angles d'attaque qui en résulte peut donner l'impression de désordre complet, mais n'est autre qu'un outil permettant à l'historien de classer, creuser et suivre ses pistes pour ainsi structurer sa recherche. Ces carnets de recherche ont une valeur historique par eux-mêmes et ne peuvent fonctionner que s'ils sont soumis à un public ouvert et inconnu.

Trevor Owens, Digital Sources & Digital Archives: The Evidentiary Basis of Digital History in Companion to Digital History. https://osf.io/preprints/socarxiv/t5rdy/

This essay sets out to assess what the implications are for the methods of the historian now that we are increasingly building our evidence on digital sources that are retrieved from digital archives published on the web. This creates a 'digital context' that is quite different from the original context of the source and can affect the apprecitation of a source. To emphasize the continuity in the principle of source criticism, the author cites a German classic in historiography, the historian Gustav Droysen, who already in 1867 stressed the importance of trying to understand the relation between the source and its creator. The very first consideration should be the context of the selection process for digitization. With regard to quality of the surrogate digital copy it depends on the relevance of the artifactual or informational qualities of the source what kind of resolution suffices. When it comes to the assessment of the abudance of sources offered on the web, contextualisation is again key. 'Screwing around' as Steven Ramsey has coined browsing on the web, is an adequate method for preliminary research, but once a topic or research question has been defined, one should delve into the original context of the making of the document and of its related sources. A key difference between analog and digital born sources is that the latter are merely an illusion as they consist of a sequence of markings. To be able to solve problems that will occur with consulting sources created on older versions of software, one has to acquire some basic knowledge of the history of software and of digital carriers and be conscious of the hidden layers of information that are not visible on the screen without applying special functions. Another crucial difference with analog sources is that consulting archived digital objects will yield different results at different times, according to the choice and availabilty of certain features and the webbrowsers that one uses. Each intemerdiary layer of software is one in the sequence of interpretations of content. Other relevant differences with analog objects, are the immense scale of production and the disappearance of the distinction between original and copy. Again context in the form of often hidden metadata is essential and knowledge of the social conventions of the medium. A crucial change in the shift from document to data, is the role of 'search' at the expense of linear order. While its dominance is increasing, our capability of preserving its context is quite limited. This means we will not be able to reconstruct the exact context of someone searching for particular images in a particular time period. In the last part of the essay Owens characterizes different types of digital archives. He distiguishes: aggregated collections of digitized primary sources which allow to bring material that is dispersed in different places together, digitized copies of the entire contents of an archival collection, born digital archival collections, web archives and collections of user generated digital born content. Owens concludes by observing that the recquirements for source criticism have stayed the same, but the skills to be able to cope with the new information ecology require knowledge of information technology.

Harold Rheingold (2013) On Crapp Detection. http://rheingold.com/2013/crapdetection-mini-course/ retrieved 1-5-2017. Today, in the era of Internet, with answers to any questions being one click away, the new challenge we face is not how to find these answers but rather how to filter them to find the most accurate and credible information available and avoid deceptive and inaccurate claims. It is becoming more important as Internet users are increasingly often relying on online sources for not only daily news but also financial and medical information, research results and investment advice.

This blog post by Rheingold (2009) is dedicated to the methods for detection of inaccurate information, misinformation and disinformation ('info-pollution') in online sources (including news, texts, videos, images,

tweets), which may exist due to authors' 'ignorance, inept communication or deliberate deception'. While Rheingold disagrees with the point of view that the Web is already useless when it comes to finding trustworthy information, he still argues that basic information literary is a skill required to ensure the future of the Internet as a credible information source. Verifying the author's (or website owner's) credibility and authority, checking the website domain extension, using triangulation to cross-check the obtained information, applying online filters, critical examination of the biases of trusted sources and social media, learning to recognise visual deception which can distort TV news - all these are among the most accessible methods Internet users can apply to be 'critical consumers'. Rheinhold emphasises the importance of critical thinking ('judging for yourself') in the process of information verification. Besides, a number of easy-to-use and free online tools and relevant articles and books are mentioned in the post. Although some of the websites and projects the author is referring to do not exist anymore, the post still provides valuable advice to any Internet user on how to navigate Web without being misled by unverified and fabricated information.

Eva Schlotheuber, Forum: Source Criticism in the Digital Age. Ancillary historical skills as an essential competency for historical scholarship and associated disciplines, http://www.hsozkult.de/debate/i d/diskussionen-2878

Catherina Schreiber, Genuine Internetdaten als historische Quellen – Entwurf einer korrealistischen Quellentheorie, http://universaar.uni-saarland.de /journals/index.php/zdg/article/v iew/292/357

Do historians need a new auxiliary science to analyze born-digital sources or do we have to rethink source criticism as a whole for the challenges that historians are facing in the upcoming years? This is the central question of Schreiber's article. Schreiber gives several examples that historians have to use born-digital source to do historical research in the future: we can't understand our Zeitgeschichte without them, it is helpful for network analysis or for statistical purposes. The author argues that born-digital source criticism can easily integrated in the way we're doing history nowadays. In fact, based on several examples Schreiber shows that historians only have to slightly adjust and rethink their traditional ways of analyzing sources: 1) there is no such thing as "a digital source". Like the other sources we're analyzing, we have to recognize that every born-digital source has its singularities. 2) born-digital sources are multidimensional. They differ in the way they are created, received or interconnected, like traditional sources. 3) Born-digital sources are reliable and authentic; even if they are fake. In this case historians have to ask why they have been faked. 4) Digital sources have a complex spatial and temporal setting, just as traditional sources. 5) Born-digital sources are multimodal. That implies that the manifestations of these sources can differ.

Schreiber suggests the concept of "Korrealismus" as a source-critical approach. By that she wants to integrate a certain spirit in her historical research. The concept has its roots in architecture (Friedrich Kiesler (1947). She wants to question historical sources before they are materialized. By that she means that she doesn't want to interpret the "final product" but the idea behind the source.

Solberg, Janine, 'Googling the Archive: Digital Tools and the Practice of History', Advances in the History of Rhetoric 15, no. 1 (2012)

doi:10.1080/15362426.2012.6570 52.

Solberg problematizes that the digital tools and structures that support research have epistemological consequences for how historians make sense of the past. Without arguing for technological determinism, environments shape and enable the behaviour of people within those environments, and promote or hide certain avenues of research. Therefore, the environment not only methodologically influences the practices of historians, but actively influences what results are epistemologically possible from historical research. Thus far, scholars have mostly been accomodationist, asking how their practices might be accommodated to fit the digital tools. Solberg intends to turn this around, and ask how technologies can be made to accommodate the practices of historians. This is not to deny that similar criticisms are true as well about the material structures; the goal is here to reimagine what can be done with digital structures.

To reflect on research processes, the author introduces the principle of "proximity" as a key factor in considerations of scholarship: historians tend to research topics that are in some way 'close' to them. Solberg describes three forms of proximity:

- 1) affective, the extent to which a subject is intellectually or emotionally of interest to the scholar,
- 2) geographical, the physical location of materials and the possibilities of physical access,
- 3) virtual, the potential of a source to be found through search engines, metadata, and other related technology.

This final proximity is at the heart of the essay, where the more findable a source is, the more proximate it is said to be. Solberg therefore concludes that search does not simply speeds up research, but changes the relation of scholars to sources, and the spaces that fall within the proximate lines of inquiry.

Joshua Sternfeld (2014), 'Historical Understandings in the Quantum Age', Journal of Digital Humanities, Vol 3, nr. 2, http://journalofdigitalhumanities. org/3-2/historical-understanding-in-thequantum-age

Digital media create new challenges for historians and change their way of analyzing sources and their relationship with digital material. A choice that was unimaginable even some years ago has now become a reality: historians work either with a clearly delimited number of material, or with a huge amount of sources that they could never analyze all individually in their lifetime. Historians need to adapt their methods accordingly, but the basic historical questions should always stay at the heart of a historian's task: how and why. Sternfeld criticizes that these questions – why did something happen and why is it important, and how did this phenomenon happen – have been often ignored in digital history. Even if traditional ways of history would not be appropriate for working with millions of sources, digital methods cannot ignore the basic questions of history and need critical thinking.

Sternfeld discusses two concepts in his article: scale and appraisal. The former concerns the question of level at which historical enquiries take place. While traditional historical accounts were situated at what Sternfeld calls the "Newtonian level", i.e. the analysis of a manageable amount of sources integrated in a coherent narrative, digital methods have opened up new levels of analysis: from one single source ("atomic history") to millions of documents and vast amounts of data ("astrophysical history"). The second concept, appraisal, concerns questions of contextualization. Scope and provenance are two important aspects for appraisal: knowing what material has been selected to be preserved in digital archives and being able to trace back the data to its origin.

Scale and appraisal need both to be thought in tandem and would, according to Sternfeld, allow for a more pragmatic approach in digital history. We would be able to move on the quantum scale of history.

Terras, M. (2012). Digitisation and Digital Resources in the Humanities. In C. Warwick, M. Terras, & J. Nyhan (Eds.), Digital Humanities in Practice (pp. 47-70). Facet Publishing.

http://www.facetpublishing.co.uk/title.php?id=047661#.Wdy32EyB364

Myriam C. Traub, Jacco van Ossenbruggen1, 2 Workshop on Tool Criticism in the Digital Humanities; CWI Techreport July 1, 2015, https://ir.cwi.nl/pub/23500 With tool criticism we mean the evaluation of the suitability of a given digital tool for a specific task. Our goal is to better understand the impact of any bias of the tool on the specific task, not to improve the tools performance. While source criticism is common practice in many aca- demic fields, the awareness for biases of digital tools and their influence on research tasks needs to be increased. This requires scholars, data custodians and tool providers to un- derstand issues from different perspectives. Scholars need to be trained to anticipate and recognize tool bias and its impact on their research results. Data custodians, tool providers and computer scientists, on the other hand, have to make infor- mation about the potential biases of the underlying processes more transparent. This includes processes such as collection policies, digitization procedures, optical character recognition (OCR), data enrichment and linking, quality assessment, error correction and search technologies.

Matteo Treleani (2013), 'Recontextualisation; ce que les média s numériques font aux documents audiovisuels', in: R éseaux,1, (no 177) http://www.cairn.info/publication s-de-Treleani-Matteo--99590.htm

Dans la Recherche du temps perdu, Swann écoute plusieurs fois la petite phrase de Vinteuil et découvre à chacune « d'admirables idées qu'il n'avait pas distinguées à la première » (Prous, 2005, p. 351). L'audition musicale, répétée, constitue une nouvelle expérience, où l'objet est reconstruit à chaque fois, présentant de nouveaux aspects indistinguables autrement. La recontextualisation présente ce même effet heuristique. Remontrer les images dans un nouveau contexte permet de le réinterpréter. Un peu comme Swann, qui découvre un nouveau morceau de musique à la deuxième audition, la recontextualisation par le biais des « nouveaux médias » peut donner un sens nouveau aux images d'archives. Understanding 9/11 nous offre un point de vue intéressant sur ce phénomène très répandu dans les médias numériques. Le fait que les documents soient des archives nous a donné les moyens de jeter une lumière heuristique sur cette problématique. Observer la recontextualisation sous le prisme des archives télévisuelles permet de faire surgir des traits saillants que l'on aurait eu du mal à percevoir autrement. La spécificité de l'archive consiste en son origine passée. Comme nous l'avons vu, l'exploitation de documents du passé doit être intégrée dans une mise en valeur historique qui tient compte de la relation entre passé et présent. Le site permet une valorisation à partir de la comparaison entre les différents documents dans une sorte d'effet Koulechov intertextuel, où passé et présent créent du sens à partir de leur relation réciproque. Cette forme de recontextualisation apporte alors des clés interprétatives utiles pour comprendre les images dans leur contexte historique. Cela nous laisse entrevoir d'autres possibilités dans la réexploitation des archives. La base de données n'utilise pas les possibilités offertes par l'archive du Web de la même fondation, par exemple. Tisser des liens concrets entre les fragments télévisuels et les sites Internet de l'époque aurait pu être un bon moyen pour élargir le réseau du passé. Les repères cognitifs ainsi créés auraient pu donner des référents socioculturels qui ne sont plus disponibles aujourd'hui. L'exemple du site Understanding 9/11 montre que les possibilités offertes par les médias numériques peuvent être utiles pour redonner du sens au

document d'archives, afin de les plonger dans l'espace médiatique contemporain. Cette forme d'éditorialisation permet par conséquent de repenser la chaîne qui va des fonds au public, but des institutions patrimoniales à l'ère du numérique selon Marc Vernet (2007). Il faut cependant ménager la tension entre passé et présent évoquée par l'historiographie, afin de faire de la vision du document une nouvelle expérience.

Wettlaufer, Jörg (2016), 'Neue Erkenntnisse Durch Digitalisierte Geschichtswissenschaft(en)? Zur Hermeneutischen Reichweite Aktueller Digitaler Methoden in Informationszentrierten Fächern', ZfdG - Zeitschrift für digitale Geisteswissenschaften (2016) doi:10.17175/2016\_011. http://zfdg.de/2016\_011 (accessed October 5, 2016).

The use of digital tools has significant practical implications for the work of historians. However, do they also entail a genuinely new kind of knowledge that is not possible with traditional methods? Jörg Wettlaufer argues yes. To show the hermeneutic range of digital methods within history he looks at recent developments in three key areas of digital history: handwriting recognition, historical network analysis, and historical semantics informed by computational linguistics. In the last years OCR technologies for handwritten texts made significant progress when it comes to the task of transcribing manuscripts. A mix of different technologies like document layout analysis, the training of programs through user-interaction and speech models made this possible. The Transcription and Recognition Platform project already reaches an accuracy of more than 90% for handwritten sources. The second area Wettlaufer is concerned with are visualizations and network analysis. The social sciences influenced historical network analysis in a major ways. The special importance of methods in this area lies in their ability to create formalized graph theoretic models of social groups. With these models it is possible analyze the position of individual agents within a group, the distribution of group activity and the structure of social networks. Visualizations of networks provide a useful way to understand and present the results. The last area Wettlaufer describes is semantic language analysis. The Historical Semantics Corpus Management platform of Berhard Jussen and Alexander Mehler provides an example of a project that makes possible the quantitative analysis of a mediaeval Latin corpus. The platform presents the changes of significant semantic terms in a diachronic perspective. All three areas examined by Wettlaufer have in common that they deal with amounts of data that by far outstrip the analytical possibilities of a single researcher. Digital technologies used in handwriting recognition can transcribe more documents than a single researcher ever could and historical network analysis can show the interaction of a large number of variables.

Peter Verhaar (2016), Affordances and Limitations of Algorithmic Criticism, 2016-09-27

https://openaccess.leidenuniv.nl/handle/1887/43241

Humanities scholars currently have access to unprecedented quantities of machine-readable texts, and, at the same time, the tools and the methods with which we can analyse and visualise these texts are becoming more and more sophisticated. As has been shown in numerous studies, many of the new technical possibilities that emerge from fields such as text mining and natural language processing can have useful applications within literary research. Computational methods can help literary scholars to discover interesting trends and correlations within massive text collections, and they can enable a thoroughly systematic examination of the stylistic properties of literary works. While such computer-assisted forms of reading have proven invaluable for research in the field of literary history, relatively few studies have applied these technologies to expand or to transform the ways in which we can interpret literary texts. Based on a comparative analysis of digital

scholarship and traditional scholarship, this thesis critically examines the possibilities and the limitations of a computer-based literary criticism. It argues that quantitative analyses of data about literary techniques can often reveal surprising qualities of works of literature, which can, in turn, lead to new interpretative readings.

Gerben Zaagsma (2013), On Digital History; bmgn - Low Countries Historical Review | Volume 128-4 (2013) | pp. 3-29 https://www.bmgn-lchr.nl/article s/abstract/10.18352/bmgn-lchr.9 344/ This article presents a critical argument on the recent developments in the field of Humanities after the digital turn, especially to what concerns 'doing' history in these realms. Its criticisms are focused on the tool-oriented/machine-oriented and data-driven tendency of the research that has been developed in the dawn of "digital history" and points an unbalanced appreciation of the impacts of technology in the historiographical operation. Based on a short historicization of what is "digital history" itself, and how it has been defined over the last years, going back to the 1960's and the first flirts of history and computing, the author identifies the technological determinism as downside of the meta-reflection on the writing of history in the digital age. The main preoccupation here is the little attention paid to the problems and questions that configure a historical research, while major consideration is given to the hype around all the possibilities of machines. In this light, the article presents the discussion of the changing practices of doing history in the digital age as the condition sine qua non for those historians engaging with the digital turn. It argues that hybridity is a key characteristic of digital history and advocates for more integrative approaches as fundamental to cope with the apparent "separateness" of digital and non-digital historical practice.

Matthew Kirschbaum; Digital Forensics and Born-Digital Content in Cultural Heritage ...https://www.clir.org/pubs/repo rts/pub149/pub149.pdf Digital Forensics and Born-Digital Content in Cultural Heritage Collections exam- ines digital forensics and its relevance for contemporary research. The appli- cability of digital forensics to archivists, curators, and others working within our cultural heritage is not necessarily intuitive. When the shared interests of digital forensics and responsibilities associated with securing and maintain- ing our cultural legacy are identified—preservation, extraction, documentation, and interpretation, as this report details—the correspondence between these elds of study becomes logical and compelling.

There is a palpable urgency to better understanding digital forensics as an important resource for the humanities. About 90 percent of our records today are born digital; with a similar surge in digital-based documentation in the humanities and digitally produced and versioned primary sources, interpreting, preserving, tracing, and authenticating these sources requires the greatest degree of sophistication.

This report makes many noteworthy observations. One is the porosity of our digital environment: there is little demarcation between various storage methods, delivery mechanisms, and the machines with which we access, read, and interpret our sources. There is similarly a very thin line, if any, between the kind of digital information subject to forensic analysis and that of, for example, literary or historical studies. The data, the machines, and the methods are almost aggressively agnostic, which in turn allows for such extraordinary and unprecedented interdisciplinarity.

As this report notes, whether executing a forensic analysis of a suspected criminal's hard drive or organizing and interpreting a Nobel laureate's "papers," we are tunneling through layer upon layer of abstraction. The more we can appreciate and respond to this new world of information, the more ef- fective we will become in sustaining it and discovering new knowledge

with- in it. This requires not only a broader recognition of complementary
work in what were once considered disparate or tangential elds of study, but
also building new communities of shared interest and wider discourse.