In the eight hundred and sixty seventh issue of the second volume of the *British Medical Journal(BMJ)* printed in 1877 there is an article titled *War Hospitals*. This article addresses the needs for hospitals, even temporary ones, to exist in Britain and in South Africa, where the Boer War is happening. The discussion focuses greatly on sanitation, cost, and justifications for temporary hospitals in both peace and war times.

The article itself was found using JSTOR, though the full text is available online for free from *PubMed Central*, and the search restrictions on date of publication (1851-1902), journal of publication (*British Medical Journal*, et al.), and keyword search (“Boer war”). As a part of larger data collection the article was downloaded initially for its data, mainly word choice and order, but upon further inspection it represents the scholarly thought near the beginning of my selected parameters and provides important context for the medical perspective on the Boer War. The article deliberately chooses to specify certain people as important to the cause of temporary hospital creation, and this is important for understanding key figures that are influencing the scholarly works. The final reason for the selection of this article is that for the main research essay that this article will be used in this article plays two roles: this article will be examined by both a researcher and the computer as a way to understand the differences in gathered information from both sides.

This final reason for selection is important for its role in the secondary thesis within the research essay which is a defence of the methodology of data extraction, visualization, and presentation. If the articles that are examined by the researcher are compared with the articles examined by the computer and the conclusions drawn about them are similar enough that they could be said to provide the same information then the computer data mining methodology can be better justified, but if the conclusions are very different or that they somehow diverge in a major way then additional research and justifications must be made for the use of computer data mining and its efficacy in writing historical papers. In this way *War Hospitals* is unique because of the word choice and order that it contains. *War Hospitals* is instrumental in the final research essay and so had to be chosen for a deep reading.

While this article does not have a listed author, in fact neither the C19 Index nor the Wellesley Index could provide any information on the article; because the full text of the entire journal for that volume is available online additional context can be found within the other articles. With this information, though poorly copied with OCR (Object Character Recognition) software, I was able to determine that the editor for the *BMJ* was Ernest Abraham Hart, famous for his scathing editorials during his years as the editor. No authorship is given at anywhere in the article or in the entire volume, but it can be assumed to have been another physician of the time, probably a contemporary of Dr. Guy, given its content and its specifics in naming other physicians. In 1877 the *British Medical Journal* was written with the middle and upper classes in mind as the audience, which explains why Hart was writing scathing and self-congratulatory editorials. Reception of the *BMJ*, especially in this time period, was that if it was published therein then it must be absolute truth and fact. This meant that *War Hospitals* would have been received as the truth and that fresh air was a requirement for being healthy, but so too would this have meant there was an importance in sanitation.

During the time period that this article was published Great Britain had not yet fought its Boer Wars. But the discovery of gold in the Transvaal was pushing the local Boers (South African Republic) to rebel against Great Britain. The Afrikaans title for this war was *Eerste Vryheidsoorlog*, literally "First Freedom War." This article would be one of the basis’s upon which Britain would base her military compounds and hospitals on in South Africa, making this article incredibly important in understanding how Britain would design it’s approach to medicine and sanitation.

I was also able to identify important persons listed in the article. Usually the person was listed as simply “Dr. <name>” but with additional reading it was possible to determine that ‘Dr. Guy’ was in fact ‘Dr. William Augustus Guy, FRCP,’ ‘Dr. Brocklesby’ was ‘Dr. Richard Brocklesby’ who died in 1797, but provided much of the necessary information for this article, ‘Mr. Adair’ was ‘Sir Robert Adair, GCB,’ ‘General Cornwallis’ was ‘Charles Cornwallis, 1st Marquess Cornwallis,’ and ‘Sir George Baker’ (whose name is the only one to appear in full) was ‘Sir George Baker, 1st Baronet, MD, FRS, FSA.’ The article names quite a few very important and popular names of the time, with Dr. William Augustus Guy being the one who is using the previous research of all of the others who are named, to write his work: *War in its Sanitary Aspects*.

The article discusses much in great depth, including methodology for the construction of temporary hospitals, the cost of the temporary hospitals at different tiers, and the importance of sanitation at temporary hospitals. The particularly important facts in the cost of hospitals appear three times: “A temporary shed of deal boards, thatched with a coat of new straw sufficiently thick to keep out wind and rain, was built at a cost of £40. It was large enough for one hundred and twenty patients,”(ln. 23) “Putrid fever of a very dangerous class appeared in 1760 amongst the sick of the 30th Regiment at Guildford in Surrey, for the treatment of which he erected other hospitals at a cost of £10 each, with a result the most satisfactory,”(ln. 54) and “[Dr. Brocklesby] selected the driest and most airy spot on a rising ground in a field behind the camp, removed as much of the dry sandy soil as he required, and near the edge of the excavation drove in upright stakes about six feet high from the surface, placing wattles between them, and coated the outside with new straw. Rafters were laid over, and received a thick coating similar to that placed on the sides, making the hollow spacious and airy overhead, and yet quite warm and dry. A hospital for forty patients so constructed could not have cost more than £20.”(ln. 61) The discussion on both the construction of, and cost of, the temporary hospitals gives perspective into the costs associated with the bureaucracy of the time, and the incredibly different conditions with which these doctors were working. The approximate value of £10 in 1760 (the referenced age) to the present makes a project (valued in economic cost) worth £120,100. If we use the published age (1877) the value changes to £13,030. This is an incredible cost difference, which provides a great deal of context that otherwise would have been lost if the assumption is current (2015) market value of the GBP. The further discussion about using thatching for a great majority of the construction material also indicated what kind of condition Britain was in for construction at the time, providing addition information for what may be found during a software analysis of documents.

For the importance of sanitation we have: “In one close hovel, a soldier of the 63rd Regiment, just landed from a transport, was placed. On the third day, a malignant sore-throat carried him off. The sheets were changed, and another man put in the bed; he died in the same way; and a third man shared his fate. Fresh bedding was ordered; the boards were scraped and thoroughly washed with vinegar; and then a fourth soldier was lodged in this hovel, and died. Purification was resorted to a second time; vinegar fumes, burnt gunpowder, and burnt resins being the purifying agents adopted; but, in spite of all this, the fifth man lodged there had a narrow escape for his life. The place was not used again for seven or eight days, after which the sixth man was put in it; he too caught the disease, and was saved with difficulty. This sad experience was a sharp lesson.”(ln. 9) This line, combined with a great deal about the necessity for fresh air, provides a significant amount of information about the treatment of the sick and wounded and the advancements made in medicine from 1760 to 1877 (and to the present).

All of the quotes provide important context to understanding the British Treasury and the British medical profession. The accepted root of the improvements seen is the combat that many regiments took place in: “The same plan [*smaller, aerated buildings outside of the main camp*] was adopted on the chalky soil of a different encampment, a large airy porch being placed before each door. A regiment encamped there lost not a man during the whole encampment. In some other regiments, in which prejudices against the above plan existed, several of the sick died.”(ln. 93) This vast improvement, coming about of the British military actions, demonstrates the scholarly mindset of Britain in regards to medicine and sanitation, which comes about as a direct result of examining the infrastructure of Britain and its colonies.

This article (with two others) will be used to provide the comparison between human/researcher examination of a primary source and computer/software aided data mining and evaluation. By comparing the information gleaned from reading the document and understanding the flow of the article and the context surrounding major words/themes/ideas it is possible to formulate an argument and a broader thesis about the topic. Using software to do the same thing may yield similar results (which is what is expected) by providing the major words used (by number of uses) and proving the preceding few words and succeeding few words to grant context. If, alternately, the software analysis demonstrates that the human researcher and the computer researcher provide vastly different results then a new conclusion must be drawn, that the software can be useful for gaining a macro-history of words that could be useful for further research, rather than the micro-history of words and contexts that could be discovered by individually examining each article. In the case of this article, it will be examined by software and compared to this deep reading to assess similarities and differences, as well as being used to help calibrate any software that may require additional settings, specifically with word use and style. The other useful aspect of *War Hospitals* is that the spelling of much of the article is the same as present spelling, no superfluous ‘e’ at the end of a word, or other similar misspellings.