

Task 1

When I look for information on the state of research in a field, I start with the usual Google Scholar (and PubMed, <https://www.ncbi.nlm.nih.gov/pubmed/>) search for articles. I use keywords which I think are related to the information I want to find (words like scoliosis, ultrasound, bone segmentation, landmark, for example). I then look at the list of titles returned from the search for bolded words where my keywords were found. If the title looks relevant, I open the link in a new tab. This usually results in numerous tabs, each for a potentially useful paper. I read through the abstracts to make sure the paper really is about what I'm looking for, either the prior state-of-the-art which I hope to build on, or a method similar to one I wish to understand for the purposes of my research. Once I'm fairly sure the paper is relevant, I download it so that I don't have to remember whether it seemed important, and begin the three passes described by S. Keshav in "How to read a paper". I also look through the paper's references for one's with titles suggesting related work and search for those directly. This usually provides many papers for me to review.

Taking my supervisor's methods into account, there are a few means by which I can supplement my literature search technique. In addition to looking up a relevant paper's references, I will look up paper's which cite the relevant paper. The names of the first and last authors on relevant papers will also be useful search criteria. I can also subscribe to relevant conferences (which also publish journals) to receive their publications. Finally when a search returns too many papers to go through in a limited time, I should prioritize them on the basis of their impact factors. These methods will serve to extend those I already mentioned. I will still search using relevant keywords, and keep my papers organized in the same way, although I will also maintain a list a references in JabRef.

Task 2

A senior lab member had me start using JabRef early in my research. Since my lab group keeps papers relevant to certain projects and groups of projects in version-controlled repositories, and these repositories contain JabRef bibliographies, I have been required to use JabRef. I could certainly investigate the use of other reference management programs, however, having become accustomed to JabRef, I think I will continue using it for my purposes as well. JabRef allows for the automatic creation of entries based on files which can be added drag-and-drop style, and has many fields for additional information, including notes, for each reference. As such, I find JabRef to be more than satisfactory for my reference management.

Task 3

Journal	Impact Factor	According to
Spine	2.439	http://journals.lww.com/spinejournal/pages/default.aspx
European Spine Journal	2.132	http://www.eurospine.org/european-spine-journal_1.htm
International Journal of Computer Assisted Radiology and Surgery (IJCARS)	1.66	https://www.researchgate.net/journal/1861-6429_International_Journal_of_Computer_Assisted_Radiology_and_Surgery
Medical Image Analysis	4.565	http://www.journals.elsevier.com/medical-image-analysis/
Ultrasound in Medicine and Biology	2.298	http://www.umbjournal.org/

Conference	Acceptance Rate	According to
Medical Imaging Computing and Computer Assisted Interventions (MICCAI)	31.5%	http://campar.in.tum.de/Events/Miccai2014
IEEE Transactions on Medical Imaging	22% (2012)	http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5423307
International Journal of Computer Assisted Radiology (IJCARS)	37%	http://www.cs.miami.edu/home/geoff/Conferences/IJCAR//Reports/IJCAR-6_ProgramChairs.pdf
International Society for Photonics and Optics (SPIE) Medical Imaging	Not sure, probably close to 50%	---
International Conference on Image Processing in Computer-Assisted Interventions (IPCAI)	<40%	http://campar.in.tum.de/Events/IPCAI2015

I have spent enough time in lab meetings to become familiar with the reputations of various conferences listed in the second table. It comes as no surprise that IEEE's Transactions on Medical Imaging should have the lowest acceptance rate of those above; I often hear of IEEE when told to look for reputable or reliable publications, in CISC 874 and in the lab.

The only other conference I am really familiar with is SPIE's Medical Imaging since I submitted a paper to it over the summer under the guidance of my lab's senior staff. I was recently told that two kinds of papers are submitted to SPIE (paraphrasing) "Ones where you have nothing to publish, and ones where you will have something to publish somewhere, but don't have time to finish your work." As such, hopefully my paper belongs to the latter category, because a conference with an acceptance rate of close to (maybe greater than) 50% is consistent with such a description.