For Gesture related

1. Vision-based hand pose estimation: A review [link] - Read this first. Gives a good overview to using the hand as an input device, places where it can be used, reasons to use it, etc.
2. Charade: remote control of objects using free-hand gestures [link] - Very good high level view of gestural interaction. Mentions fatigue, interaction with gloves, how to actually use gestural selection. Limitations in technology and how it affects input.
3. Freehand pose-based Gestural Interaction: Studies and implications for interface design
   [link] - Validates the natural resting position of the elbow.
4. Distant Freehand Pointing and Clicking on Very Large, High Resolution Displays [link] : Quite similar with what we are doing. But without any ergonomic measures. No gorilla arm issue because users standing up. Uses the term “gestural pointing”. Uses markers, tnot freehand.
5. Bare-hand human-computer interaction [link]: Good paper for us. Shows usability of bare handed user interaction (ie no gloves, just simple tracking). Gives some good usability metrics such as general hand speed, acceptable frame rates for tracking, processing speed and maximum lag for user to make a causal link.
6. Vision-based hand-gesture applications [link] - Gives an overview of desirable qualities that should be present in NUI & gestures. All requirements provided were catered to in our experiments (eg: calibration), and should be mentioned.
7. Older Adults’ Use of Computer Input Devices [link] - Experiment design pretty good. DnD tasks for ours was somewhat based on theirs. The paper mentions 2 tasks: pointing and drag and drop, but only DnD experiment actually done.
8. Accuracy measures for evaluating computer pointing devices [link] - From McKenzie at York (CA not UK). This guy has a gazillion papers on pointer devices. This seems to be the mother of it all.
9. Characterizing computer input with Fitts’ law parameters—the information and non-information aspects of pointing [link] : **(important for metrics)** Tells us that the simple metrics we use are “naive” because it’s domain / experiment specific. We will use this to argue the choice in how the test was designed, and the locations / distance of each point. but mostly, to say that we have held distance and size variables constant within the experiment.
10. Towards a standard for pointing device evaluation, perspectives on 27 years of Fitts’ law research in HCI [link]
11. Menu Controller: Making Existing Software More Accessible for People with Motor Impairments [link]. Nothing specific to our project per se, but good read on how to design experiments / projects for people with disabilities.
12. Adaptive Mappings for Mouse-Replacement Interfaces [link] - Was a significant lightbulb moment for Alvin. Shows how not everyone uses the same technology in the

same way, even more so those with physical impairment.

13. Architecture and applications of the FingerMouse: a smart stereo camera for wearable computing HCI [link] - Suitable for related works as a sample of technology, but there's no usability metric here.
14. Real-Time Hand-Tracking with a Color Glove [link] : The paper from the founder(s) of www.threegear.com, this paper presumably started it all. Paper demonstrates the use of a simple colorful glove to recognise hand position. Would consider this a "competition".
15. Air Hook: Data preloading user interface [link] : Mentions that the Gorilla Arms syndrome is not a good idea.
16. A survey of design issues in spatial input [link] : Oft-referenced paper. The ergonomics section is good for us. Mentions resting the elbows. Also mentions that calibration is ok.
17. Visual touchpad: a two-handed gestural input device [link] - Very nicely written paper for the intro and related works section. But has no detailed user experiments, just simple pilot test.
18. Look Ma! No Mouse! [link]- Discusses fatigue and resting elbows.
19. "Put-that-there": Voice and gesture at the graphics interface [link] : Classic / historical purposes. Seems to be the first instance of gesture based interaction
20. g-stalt: a chirocentric, spatiotemporal, and telekinetic gestural interface [link] - full minority-report like interface. Mentions that it's too complicated.
21. Understanding Mid-Air Hand Gestures: A Study of Human Preferences in Usage of Gesture Types for HCI [link] Wizard of Oz technique to get some input (lol)
22. An Evaluation of Two Input Devices for Remote Pointing [link] - Mackenzie's Stuff. pg 237
23. Speech and gestures for graphic image manipulation [] - Classic literature. One of the first. has speech/gesture tradeoffs. Needs more reading.
24. Automatically Detecting Pointing Performance [link] - Mentions more metrics to be collected

For Multimodal

1. Visual Interpretation of Hand Gestures for Human-Computer Interaction: A Review [link] proposes multimodal gestural-voice interaction.
2. Multimodal human discourse: gesture and speech [link] - some initial thoughts on mixing speech with gestures
3. Two-handed gesture in multi-modal natural dialog [link] - talks about interactions that require both hands at the same time.
4. Speech and gesture share the same communication system [link] - self explanatory.

For handedness

1. Precise selection techniques for multi-touch screens [link] uses 2 fingers, on 2 hands, but does itself contain meta analysis on 2-handed interactions, pros and cons. meta
2.

For Gestural selection, etc

1. Visual gesture recognition [link] - Very technical approach to gestural selection. Has a grab gesture for selection.
2. Multi-finger gestural interaction with 3d volumetric displays [link] - Also has some gestural selection. May be arguable to use it here.
3. A Taxonomy of Gestures in Human Computer Interactions [link] - High level view, separates the different types of gestures, something to do with evaluation methods: user studies, etc.
4. Analysis of the Accuracy and Robustness of the Leap Motion Controller [link] - One of the first real world analysis of the Leap Motion
5. Using Wiimote for 2D and 3D Pointing Tasks: Gesture Performance Evaluation [link] - 2D and 3D analysis of Mackenzie metrics of Wiimote vs mouse, 2.9 tp for wiimote
6. Real time hand tracking and 3d gesture recognition for interactive interfaces using hmm - Uses the thumbs up gesture
7. Understanding Naturalness and Intuitiveness in Gesture Production: Insights for Touchless Gestural Interfaces

Other

1. ISO 9241-9 evaluation of video game controllers [link]- Analysis of video game controllers on a serial point select task(Mackenzie)
2. Gesture-controlled Interfaces for People with Disabilities [link] -Not much quantitative but gives backing to gestures being great for people with motor disabilities.

For Arthritis

1. Overview of what arthritis is [link]
2. Ability-Based Design: Concept, Principles and Examples [link]. Design and approach paradigm. Look at what they *can* do instead of what they cannot. Will be useful for writing accessibility paper. Very Comprehensive overview of existing tech and principles to be used.
3. Evaluation of a computer based education lesson for patients with rheumatoid arthritis. [link] - shows that it's actually beneficial for persons with arthritis to use a computer.
4. Touch-screen computer systems in the rheumatology clinic offer a reliable and user-friendly means of collecting quality-of-life and outcome data from patients with rheumatoid arthritis [link] - Shows that touchscreen is as good as paper to complete

the “Rheumatoid Arthritis Quality of Life Questionnaire” (RAQoL). This seems to be the “defacto” method for publication on Oxford Journals’ Rheumatology

5. Self-assessments of patients via Tablet PC in routine patient care: comparison with standardised paper questionnaires [link] - Only 4% felt uncomfortable with the tablet PC for this purpose.
6. Patient-reported Outcome in Psoriatic Arthritis: A Comparison of Web-based Versus Paper-completed Questionnaires [link] - Shows that web based is worse than paper.
7. Arthritis patient education: a review of the literature. [NO LINK]
8. Assistive technology commercialization [link] - Mentions that there is a future in assistive technologies.
9. Effect of age and Parkinson's disease on cursor positioning using a mouse
10. Cursor measures for motion-impaired computer users [link] - Excellent paper, talks about extending cursor measurements used by Mackenzie, very useful for cursor measurements in general including accuracy.
11. Automatically detecting pointing performance [link] - has metrics and measures. Works to improve jitter detection, smoothings, etc.
12. Personalized dynamic accessibility [link] Overview paper. Recommends interfaces adapt to user. “User interfaces should share the burden of adaptation”.
13. [META] Using accelerometers for the assessment of improved function due to postural support for individuals with cerebral palsy [link] - Uses a single case study.
14. Performance Differences in the Fingers, Wrist, and Forearm in Computer Input Control [link] - gives throughput and difference between using fingers, palm and hand. States fingers isn’t optimal.
15. Note exactly arthritis, but multiple sclerosis hands feel arthritic and easily gets tired and sore, stated during exacerbations hands feel like they are on fire and he cannot graps anything [link]
    a. studies the use of speech (vocal joystick) with a group of motion impaired vs non-impaired.

For survey

1. Survey on computer usage. Defines the range for computer usage per week [link]
2. Another survey, defines the range as well [link]
3. Survey from microsoft for accessibility [link]
4. Talks about the non standardization of learnability and describes metrics that have been previously learned. A survey of software learnability [link]

Standardization

1. Rethinking statistical analysis methods for CHI [link] - Arguments to include effects size in reporting stuff for CHI. metaanalysis here

Not Real Papers:

1. Flutter - mac gestures [link]

2. A whole issue of International Journal of Human Computer Studies dedicated to Fitts Law [link] which includes a few papers on how performance is to be evaluated

Nordichi

- Mouse evaluation 1999, all left handers preferred right hand for interaction [link]
- direct(light pen) and indirect mapping across hands with older and younger people, only slightly more errors in non-preferred hand than preferred hand[link]
    - direct point devices appear to be easier to use in a novel situation suh as using nonpreferred hand
- Mouse accross hands more depth[link]
    - left handed right mouse users did not have as large a separation of between-hands differences as the right handers did
- "Understanding Naturalness and Intuitiveness in Gesture Production: Insights for Touchless Gestural Interfaces "
    - "gestures in space to trigger manipulation of objects should be two -handed, as the non-dominant hand often appears to provide a reference frame while the dominant hand performs the transitive gesture"
- Evaluating User Interface Systems Research [link]
    - "t must be possible to complete any test within 1-2 hours"
- "Using Kinect for 2D and 3D Pointing Tasks: Performance Evaluation"[link]
    - throughput for gestural devices using xbox kinect notes that 2D slower using gestures but 3D is faster though marginally
- Motor Learning Definition & Performance is used to infer learning [link]
- Effect size used as an indication of improvements for rehabilitation[link]
- Effect size used as an indication of motor learning in Parkinson Disease patients[link]