* Data Skills using llms
  + Prompt design- Prompt Design Matters for Computational Social Science Tasks but in Unpredictable Ways Shubham Atreja, Joshua Ashkinaze, Lingyao Li, Julia Mendelsohn, Libby Hemphill University of Michigan School of Information
  + Makes argument for labels over numbers.
  + <https://arxiv.org/pdf/2406.11980>
* LLMS
  + Harnessing the Power of LLMs in Practice: A Survey on ChatGPT and Beyond
  + <https://arxiv.org/pdf/2304.13712>
  + Separates task’s into
    - Natural language understanding. Employ the exceptional generalization ability of LLMs when facing out-of-distribution data or with very few training data. •
    - Natural language generation. Utilize LLMs’ capabilities to create coherent, contextually relevant, and highquality text for various applications. •
    - Knowledge-intensive tasks. Leverage the extensive knowledge stored in LLMs for tasks requiring domainspecific expertise or general world knowledge. •
    - Reasoning ability. Understand and harness the reasoning capabilities of LLMs to improve decision-making and problem-solving in various contexts.
  + Practical guide to data
    - Advisable to train on data similar to down stream tasks
    - Llms generalize better than fine tuned models in out of distribution data/tasks
  + Real world tasks
    - Llms better than fine-tuned models
    - Challenges
      * Noisy/Unstructured input. Real-world input comes from real-world non-experts. They have little knowledge about how to interact with the model or even cannot use texts fluently. As a result, real-world input data can be messy, containing typos, colloquialisms, and mixed languages, unlike those well-formed data used for pre-training or fine-tuning.
      * Tasks not formalized by academia.In real-world scenarios, tasks are often ill-defined by academia and much more diverse than those in academic settings. Users frequently present queries or requests that do not fall neatly into predefined categories, and sometimes multiple tasks are in a single query.
      * Following users’ instructions. A user’s request may contain multiple implicit intents (e.g. specific requirement to output format), or their desired predictions may be unclear without follow-up questions. Models need to understand user intents and provide outputs that align with those intents.
* Challenges and Applications of Large Language Models
* <https://arxiv.org/pdf/2307.10169>
  + Cover many different applications and challenges
    - Applications
  + What is the typical job?
    - Chatbot
    - Computational biology
    - Computer programing
    - Creative work
    - Knowledge work
    - Law
    - Medicine
    - Reasoning
    - Robotics and agents
    - Social science and psych
    - Synthetic data generation

Alon-Barkat, Saar, and Madalina Busuioc. "Behavioural public administration meets data science: A behavioural research agenda on algorithmic decision-making." *Journal of Behavioral Public Administration* 7 (2024).

* Incorporation of PA and Public sector decision making
* Develop theortetical propositions on two core issues in human-AI interaction
  + Issue 1: Public Sector Decision Makers and Algorithms
  + Issue 2: Citizens and Algorithms
* Lit review
  + Covers ubiquity of AI in decision making support
  + Bias that arise from automation
  + AI as “neutral” decision maker (not really neutral)
* AI algorithms and Public sector decision-makers: human processing of algo advice
  + (might serve as a cool point to justify AI evaluuationsAlgorithms are made by humans and are trained on human data
* Automation Bias
  + From social psych and might induce distinct types of bias
  + Automation bias-default faith of automation
  + While some lit shows that this exists, business management lit shows both disproportionate trust and disproportionate aversion
  + Bias arise from human-algorithim interaction
  + Big problem in high risk situations
* Biased information processing by bureaucratic decision-makers
  + Selective adherence- to selective believe when it confirms priors
* Future directions
  + Over-reliance on these for decision aids in policy domains that are complex ambiguis high risk moreal judgements
    - Ai serves as moral buffer
  + Can arise from perceived performative superiority
  + Potential solutions
    - Workload reduction
      * Reducing workloads can help reduce blide faith in algo\*\*\* Big if AI application on tasks increases cog workload
    - Pre-decisional accountability
      * The expectation that one may be called to account
* Citizen-AI interactions
  + Algo Burdens in citizen state interactions
    - Algo tech has disparate and exclusionary effects
    - Section really framed as administrative burdens
  + Beyond black boxes
    - Transparency is a big issue

Alon-Barkat, Saar, and Madalina Busuioc. "Human–AI interactions in public sector decision making:“automation bias” and “selective adherence” to algorithmic advice." *Journal of Public Administration Research and Theory* 33, no. 1 (2023): 153-169.

* Test for automation bias and selective adherence
* No evidence of automation bias
* Evidence of selective adherence in non-civil service sample, but no evidence of selective adherence among civil servants (in netherlands