- Medicine is too complex for traditional programming paradigms
- ML models can take vast amounts of past patient data to come upon a result
- **Prognosis:**
    - Necessary to adopt one consistent data format for all patients
    - Possible solution is to place data in hand of patients, who can choose how to share their data
- **Diagnosis:**
    - Models can misdiagnose, so it is necessary for physician to be involved in diagnosis process from the outset
    - Possible solution is for models can suggest questions/tests for doctors to make from the patient
- **Treatment:**
    - Most difficult to automate with ML
    - Many subtleties and variations that it is difficult to capture with just a model
    - Possible solution is for model to provide one treatment option and Dr gives another, both can then be compared
- **Workflow:**
    - ML can be used to make physicians more efficient
    - Search engine ML can allow physicians to find info in charts more easily, automatically make documentation, etc
    - ML can also be provided directly to patients for diagnosis and physician recommendations
- **Challenges:**
    - *Generating Datasets*:
        - Data needs to be as similar to actual use case as possible, difficult to do in some cases
        - Sometimes difficult to get the label, ie true prediction
    - *Undesirable Past Practices*:
        - Model may learn unwanted bias from past data
    - *Expertise and Regulation:*
        - Patients or physicians may rely too much on models
        - Possible solution is to introduce confidence intervals into model predictions, but this is not foolproof either