**Q:** What is Medumo?

**A:** Medumois a patient communication platform. It keeps patients on track with their healthcare appointments by sending text and email messages with reminders, preparation instructions, care instructions, last mile logistics and surveys.

**Q:** Why does this need machine learning?

**A:** Some patients, even with text and email reminders, are not able to keep up with appointments. This results in patients cancelling their appointments close to the procedure or not showing up for the appointment i.e. Default. Thus, valuable appointment slots go unused which leads to increase in already long wait times at the hospitals. If we can predict beforehand the patients who are going default then the potentially unused appointment slots can be used in to accommodate patients waiting for an appointment.

**Q:** How is the data structured?

**A:** The engagement data is structured in three different tables Enrollment, Engagement Events and Outcomes.

Enrollment Data has a list of patients that were enrolled for their colonoscopies(procedure) along with the date they were enrolled and their procedure date. It also has their date of birth and gender.

Engagement events is the engagement data that includes all the interaction events for every patient. It includes a lot of events and the meanings of each event type will be explained to each team in person.

Outcomes data contains the binary variable that we are trying to predict. For the scope of this project, cancellations within 3 days of colonoscopies and no show are combined and flagged as 1. The procedures that took place are flagged as 0. This puts the limitation that latest we can predict is at the end of 4th day before procedure date. Ideally we would want to predict as soon as possible but accuracy of the model increases as we try to predict closer to the procedure.

Please experience the Medumo colonoscopy program by texting ‘medumocaretours’ to 866-899-3473 and then replying 1 to the first message and then replying Y. It will send you a link to Medumo WebApp where you can experience the UI and understand engagement click events better. You can keep replying Y to experience other messages.

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