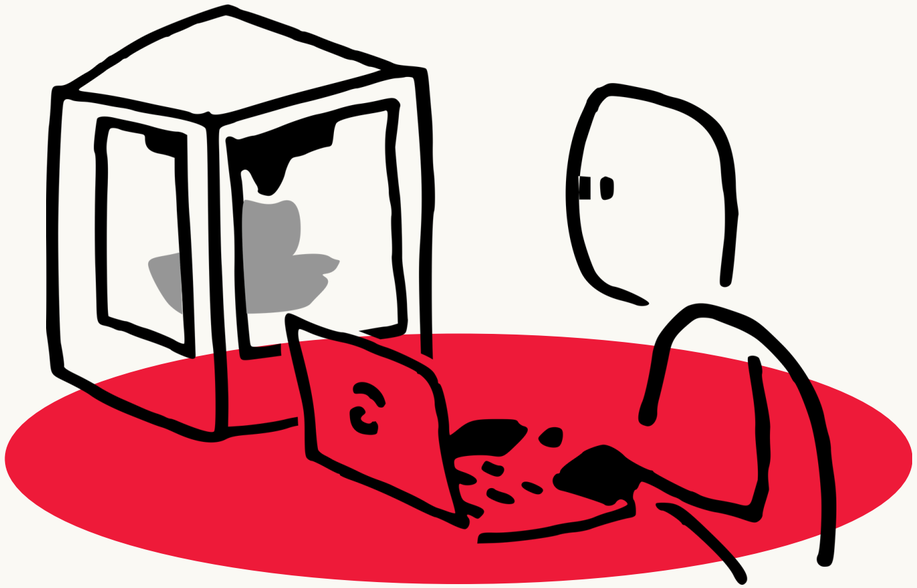
Project 8

APPLIED DATA SCIENCE PROJECT

Patient Preference Studies
Categorization System

Francesco Giuseppe Gillio & Cesar Augusto Seminario Yrigoyen



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Overview

Checkpoint

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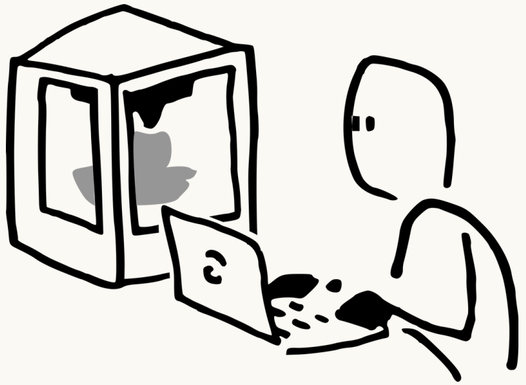
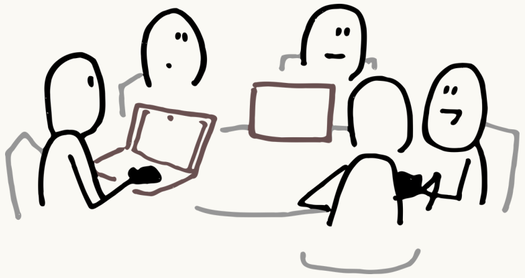
- Background
- Project General Objectives
- Project Value Proposition
- Project Design
- Work Breakdown Structure

The Stakeholders

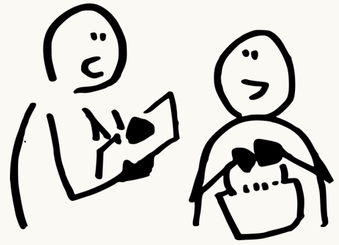
Patient
Preference Studies
Categorization System



Medical
Researchers

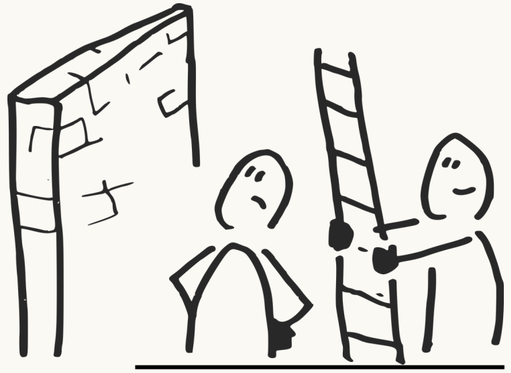


Pharmaceutical
Companies



Patients

The Challenges



Large Volume
of Scientific Databases

Search strings in citational databases (**PubMed**) return a large amount of irrelevant content

Data Noise

Broad Scope
of Scientific Areas

PPS cover a wide range of clinical areas; an accurate search by area requires requires manual content supervision

Data Ambiguity

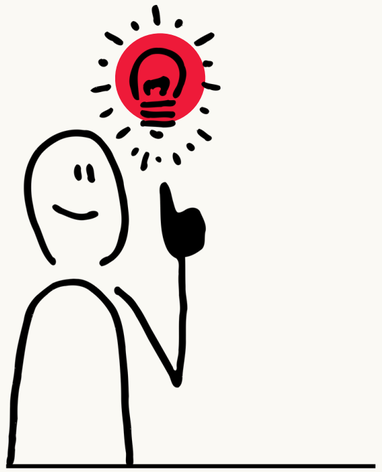
Adaptation to Scale
of Scientific Literature

The manual supervision process struggles to address the contemporary publication scale of Scientific Literature

Data Overload

Project Value Proposition

The Values



Streamline Search Results
in Scientific Databases

PPS Classification System to bypass irrelevant content, return high-value literature, and optimize search results

~~Data Noise~~

Improve Relevance
on Scientific Areas

Clinical Area Classification System to categorize search results and improve retrieval of area-specific information

~~Data Ambiguity~~

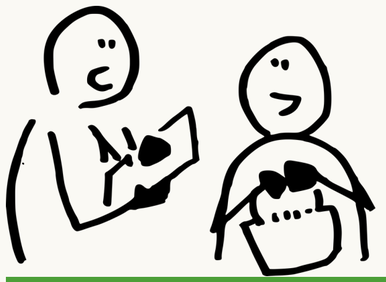
Boost Efficiency
through Automation

Classification System Automation to reduce manual effort and improve access to up-to-date research

~~Data Overload~~

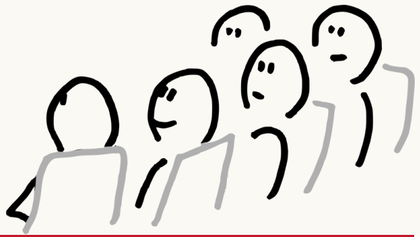
Project Value Proposition

Sustainable Development Goals Alignment



GOOD HEALTH AND WELL-BEING

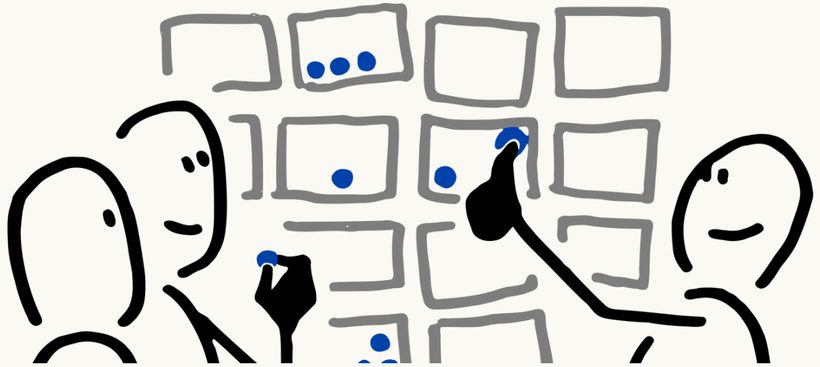
Support the advancement of patient care through accurate and high-quality patient-relevant data



QUALITY EDUCATION

Improve information retrieval in health research through accurate, high-quality and relevant literature

The Project Objective



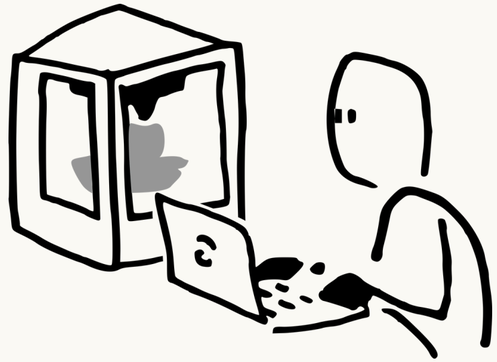
Multi-Label Classifier Model for Scientific Papers

Categorize Patient Preference Studies into Clinical Areas

Project General Objectives

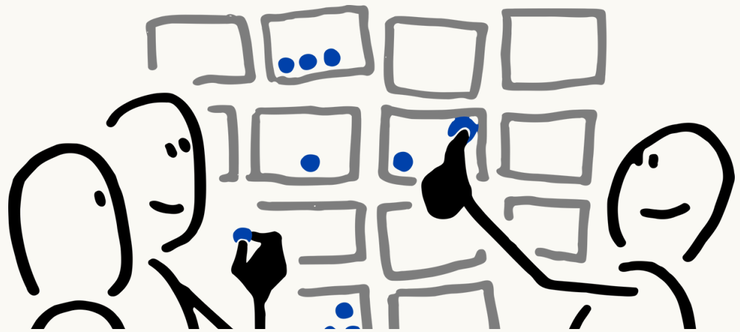
Supervised Binary Classifier Model

Categorize search string outputs by relevance to **Patient Preference Studies**



Titles

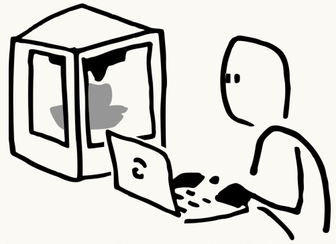
Abstracts



Self-Supervised Multi-Label Classifier Model

Categorize **Patient Preference Studies** into specific **Clinical Areas**

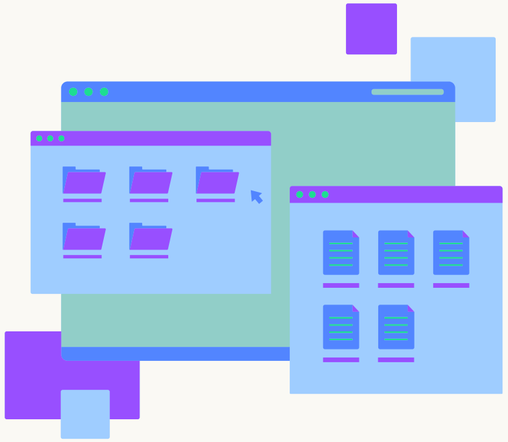
Design



Large Search String
Patient Preference Studies

PubMed

Center of Biostatistics, Epidemiology and Public Health (C-BEPH)



Patient Preference Studies
with Noise

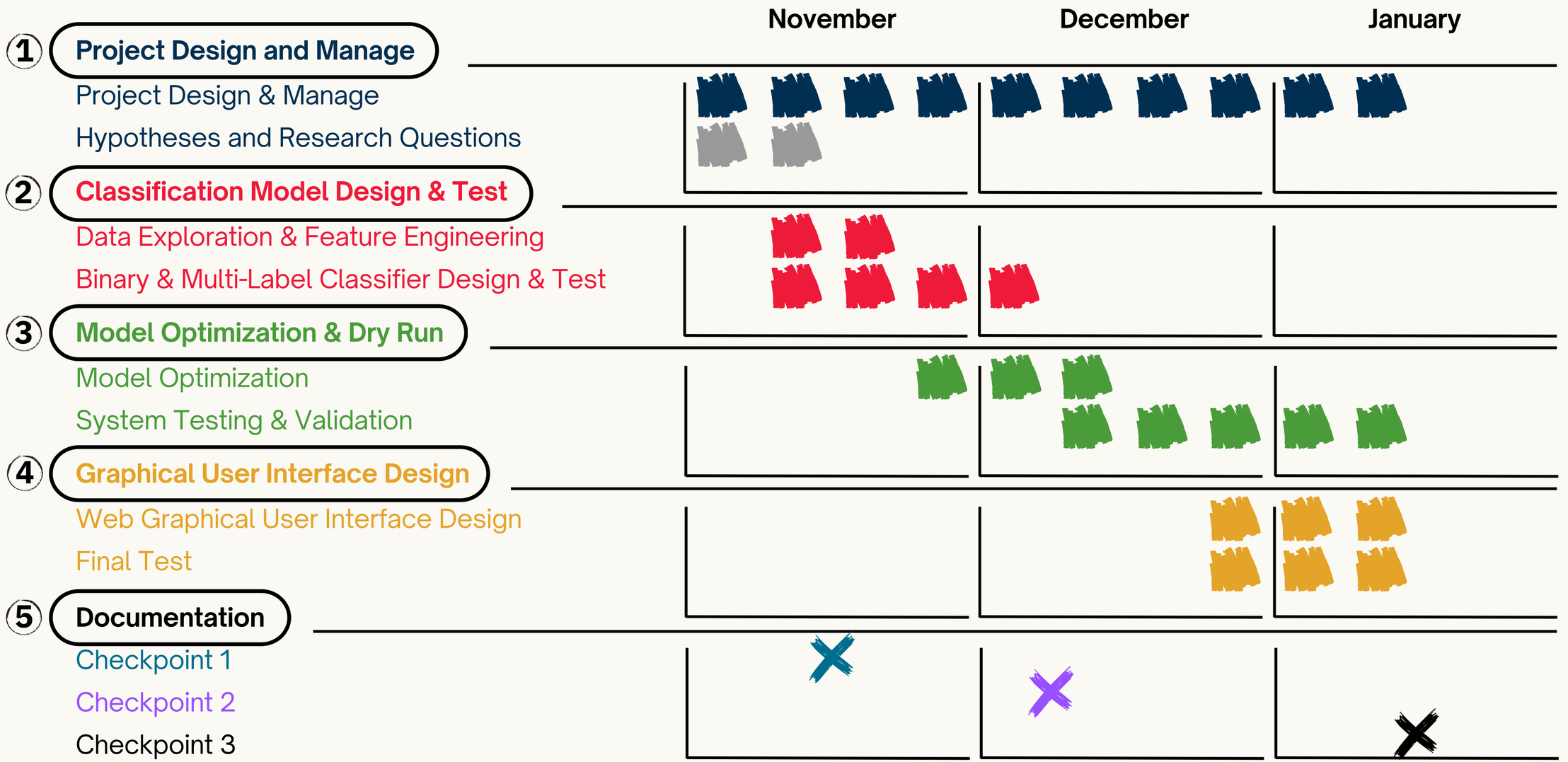
Supervised
Binary
Classifier Model

Patient Preference Studies
without Noise

Self-Supervised
Multi-Label
Classifier Model

Patient Preference Studies
into Clinical Area

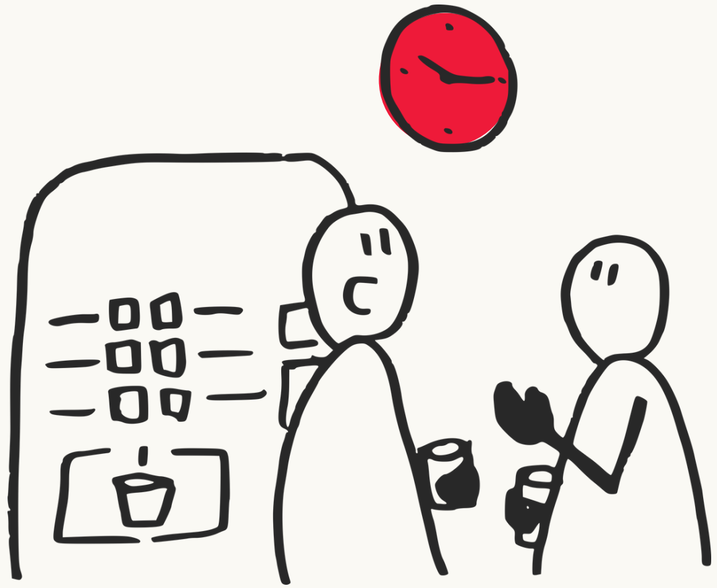
Work Breakdown Structure



APPLIED DATA SCIENCE PROJECT

Thank You

Francesco Giuseppe Gillio & Cesar Augusto Seminario Yrigoyen



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