

IOT BASED SAFETY GADGET FOR CHILD SAFETY MONITORING AND NOTIFICATION

INTRODUCTION:

AI and automation are two of the key reasons for modernizing. That's why it's vital to know that your choice of AI servers, storage and software can determine how well you are able to infuse AI throughout your organization, reduce the cost of data ingress and egress, and protect your data for a trustworthy AI framework.

REFERENCES:

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PROBLEM STATEMENT DEFINITION:

A problem statement is a tool to help guide your team toward building the right product. Defining AI problem statements well is important in pointing a path to a worthwhile AI product.

It's easy to solve the wrong problems. Good design relentlessly questions assumptions, reframing the design problem to be solved. We know this, and yet, HOW to actually reframe a

problem is missing from our conversations. - Stephen Anderson

AI problem statements fall into one of two traps.

❑ Too broad to be meaningful, e.g. talking about value to users, adding intelligence, or automating X.

❑ Too prescriptive so that we venture into the 'how to' territory.

It is quite an art to thread the line between open-ended yet focused without drifting toward

excessively broad or overly prescriptive. It is an art worth practicing.

But first, some nuance. Stating that a problem is an AI problem is prescriptive in and of itself.

Nevertheless, here are some rules of thumb that I've found useful in avoiding bad problem

statements when designing products that are likely to include AI.

IDEATION & PROPOSED SOLUTION:

EMPATHY MAP CANVAS:

Robots need love too — Empathy Mapping

for AI

Product people build things that serve

some purpose and solve some problem. Unfortunately, when it comes to machine learning, most are forgetting this.

We need a way to set guidelines on how the non-deterministic, intelligent algorithms should work. You can't sprinkle it like magic dust and assume it will be transformative.

At Philosophie, we use prototyping to quickly try more solutions for our clients. This helps them reduce the likelihood of failure when going to market. For machine learning we have started to experiment with building non-coded prototypes that simulate what machine learning could do.

Transitioning from prototype to building is not as straightforward. We needed a good way to do this and found inspiration from a research technique...

IDEATION & BRAIN STORMING:

Teams can easily collaborate, solve problems, and generate ideas by using MURAL as a shared online space for design thinking.

MURAL is more than a replacement for your office whiteboard. It is a platform where ideas can come to life, meetings are more interactive, and teams can innovate faster. Teams can use MURAL to shape their ideas when they are not sitting together in the same room. In addition to the visual features, like sticky notes, icons, and diagramming, MURAL has

more than 300

templates that enable you to implement and scale design thinking and agile practices.

In addition to design thinking activities, IBM uses MURAL for conducting technical discovery sessions and leading other types of collaborative meetings and workshops.

PROPOSED SOLUTION:

Natural Language Processing (NLP) enables understanding, interaction and communication between humans and machines. Our AI solutions use NLP to automatically extract critical business insights and emerging trends from large amounts of structured and unstructured content

PROBLEM SOLUTION FIT:

As an emerging technology, AI can transform the way people work with data and with each other. For unified communications, that potential means improved access to information and better control of UC applications and endpoints

REQUIREMENT ANALYSIS:

FUNCTINAL REQUIREMENTS:

Visual impairment: this concerns far-sightedness and near-sightedness so there are two

types of visual impairment to distinguish between.

⊗ Hearing impairment: you can be affected by hearing loss as soon as you lose 20 decibels. It

may affect one or both of your ears. Depending on their hearing loss, hearing impaired people

can have hearing aids, cochlear implants, subtitles. When we refer to deaf people, this means

they can't hear anymore or barely.

⊗ Intellectual disability: the WHO defines it as "a significantly reduced ability to understand

new or complex information and to learn and apply new skills (impaired intelligence)”.
⊗ Physical disability: this includes people with a physical impairment or reduced mobility.

Thus, their mobility capacity may be limited in their upper and/or lower body.

Business requirements

These include high-level statements of goals, objectives, and needs. Business requirements do

not include any details or specific features. They just state the problem and the business objective to be achieved such as

☐ increased revenue/throughput/customer reach,

☐ reduced expenses/errors,

☐ improved customer service, etc.

User (stakeholder) requirements

The needs of discrete stakeholder groups (top-level managers, nonmanagement staff, customers,

etc.) are specified to define what they expect from a particular solution. This group serves as a

bridge between the generalized business requirements and specific solution requirements. They

are outlined in a User Requirements Specification and can include, for example, ability to create

various reports, view order history and status,

NON FUNCTIONAL REQUIREMENTS:

not related to the system functionality, rather define how the system should perform.

Some examples are:

The website pages should load in 3 seconds with the total number of simultaneous users <5 thousand.

The system should be able to handle 20 million users without performance deterioration.

Here's a brief comparison and then we'll proceed to a more in-depth explanation of each group.

PROJECT DESIGN:

DATA FLOW DIAGRAMS:

SOLUTION AND TECHNICAL ARCHITECTURE:

USER STORIES:

In the Garage Method for Cloud and many other agile methods, one of the key tools to

communicate between the product owner (the customer) and the development team is the user story.

Martin Fowler and Kent Beck define a user story as "...a chunk of functionality (some people use the word feature) that is of value to the customer... The shorter the story the better. The story represents a concept and not a detailed specification. A user story is nothing more than an agreement that the customer and the developers will talk together about a feature." ¹ (Author's emphasis.)

PROJECT PLANNING AND AND SCHEDULING

Feature selection (sprint planning – part one)

Many teams set an overall goal for the iteration to help guide the selection of features. At the

beginning of the meeting, the highest priority features are typically selected from the release

plan. If the iteration does have an overarching goal, then some lower priority features may be

selected if they better align with the goal. Prior velocity is critical to enabling the team to

schedule a realistic amount of work.

For example, if the team previously planned to get 40 story points worth of product features, but only successfully delivered 30 story points, then 30 story points should be considered the current velocity for the next iteration. Past velocity estimates compared to actual numbers are useful at the iteration level, the feature level, and the task level. All of these help the team determine how much they can sign up for in the next iteration. If the iteration is overbooked, then the customer needs to select which features need to be delayed to a future iteration. During the iteration planning meeting, the customer will discuss features with the team and attempt to answer any questions the team has.

Task planning (sprint planning – part two)

The team will break the features down into tasks.

Developers then sign up for tasks and estimate them. Tasks typically range in size from four hours to two days, with most tasks capable of being

delivered within a day. Tasks larger than two days should generally be broken down into smaller

tasks. Occasionally during task planning a feature is determined to have been woefully

underestimated in the original release plan. In this case, the team will need to work with the

customer on providing a corrected estimate and determining what feature or features may need to be delayed as a result.

Iteration adjustments

During the iteration, if there is remaining time after all features have been delivered, then the team can request that the customer identify additional feature(s) to add to the iteration. If, on the other hand, it is obvious that not all features can be delivered, then the team works with the customer to determine which features could be delayed or perhaps split in order to deliver the most value by the iteration deadline.

SPRINT DELIVERY SCHEDULE:

the first step in the sprint planning process. During this step, the team selects the amount of work it can deliver from the prioritized backlog, and using historical velocity as a guide, determines how much to schedule in each sprint.

You can schedule a sprint from the Sprint Scheduling page. From this page, you can view sprint details and schedules for individual teams, schedules across all teams for a selected project, including the following summary information:

- 📅 Sprint start and end dates
- 📅 Cumulative estimate for each sprint (and progress bars showing amount of work completed for active sprints)
- 📅 Number of stories and defects to be worked during the sprint with their estimates

Closed Sprints and their data Stay on track of sprint goals and improve retrospectives with data
scrum teams can put to use sprint over sprint.

Sprint report

Determine overcommitment and excessive scope creep and understand completed work in each

sprint.

Burndown chart

Track progress towards sprint goals to manage progress and respond accordingly.

Release burndown

Track and monitor the projected release date for versions and take action if work is falling behind projected schedule.

Velocity chart

Track work from sprint to sprint to help teams determine the velocity and better estimate the

work a team realistically achieve in future sprints.

Optimize kanban flow for continuous delivery

Better predict future performance and spot bottlenecks with agile reports for kanban teams.

Cumulative flow diagram

Easily spot blockages by seeing the number of issues that increase in any given state.

Control chart

Determine future performance with cycle and lead times for your product, version, or sprint.

Work management made easier with Jira reports

Identify trends and work smarter, with out-of-the-box reports for issue analysis and forecasting

in Jira Software.

Issue analysis

Average Age Report

Created vs Resolved Issues Report

Pie Chart Report

Recently Created Issues Report

Resolution Time Report

Single Level Group By Report

Time Since Issues Report

Forecast & management

Time Tracking Report

User Workload Report

Version Workload Report

Bring it all together with dashboards in Jira

Organize projects and track achievements in a single view with dashboards in Jira Software.

With dozens of built-in gadgets, easily customize dashboards for teams, stakeholders.