Office Action Research Plan (thru EOY 2014)

It can be generally inferred that the patent examiner's two primary goals are the completion of cases in the shortest amount of time and before their due date. The successful performance of these goals can be measured in the counts they receive bi-weekly, quarterly and annually. These metrics serve the examiner as a barometer of performance and the institution as a measure of business goals.

With the goal of improving the users' experience in managing office actions as USPTO transitions a new interface and infrastructure, this plan proposes a suite of activities to support this goal. To standardize and optimize the methodologies proposed, it may be of great value to implement them within a quality management framework such as Six Sigma or Kaizen.

Objectives

- Validate existing assumptions about the user.
- Mature our understanding of the users' practices and goals. What influence does workplace have on performance? What is the relationship of the actors: examiner, SPE, support staff?
- Identify usability issues — Formative studies will seek to discover significant usability issues at an early stage of development: what works for users and what doesn't, the most common errors and if improvements are being made across design iterations. Summative studies will assess the overall usability, improvement across releases and whether usability goals are being met.
- Discover new feature opportunities.

Activities

Our initial research plan will correlate with two aspects of the Office Action development process: *discovery* and *design*. Users will be segmented by role, experience and other variables where appropriate.

Discovery research will seek a high-level perspective through surveys, focus groups, interviews and contextual inquiry. From these efforts we will assess, validate and evolve user stories, scenarios and workflows, discover new feature opportunities, formulate testable hypotheses and build a test foundation for design efforts.

> **Surveys**, in the discovery phase, enable us to build general knowledge quickly and efficiently. We'll use these to help us frame our basic research questions and goals.
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> **Focus groups** provide an opportunity efficiently identify user needs and feelings, such as common pain points, usability concerns, and obtain valuable early, expert feedback on feature and design planning.
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> **Interviews** are a key tool in which to collect general attitudes about the existing system and workflow, as well as to understand how they address problems; such information contributes greatly to feature definition and presentation.
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> **Contextual inquiries** are an invaluable tool for revealing a user's decision-making process, environment, social and behavioral patterns. More than any other methodology, they afford the greatest path toward a holistic and empathic understanding of the user's world.

Design research will iteratively guide our development processes, as well as refine and validate our discovery conclusions. We will employ local and online usability measures of user performance and satisfaction, including task success and time, learnability, Kano studies and surveys.

Performance studies will include lab-based testing for measures of task success and time on task, learnability and error, on the current testing schedule (sprint and/or release). Early testing will serve as benchmark assessments.

Satisfaction will be measured through self-reporting with lab-based Kano studies, SUS and surveys to derive metrics such as Net Promoter Scores.

Additional research opportunities include:

- Text analysis of messaging records for sentiment and content
- Journaling
- Kibana metrics
- Physiological studies, including eye-tracking
- Effort (cognitive and physical) — NASA tlx
- Efficiency (e.g., click patterns which may inform training and/or revisioning)
- Trust (e.g., count reporting) — journey map
- A genealogy of examiner/mentor relationships to look for examining style trends. Can inform future design requirements…