Blueberry Productivity: A Productivity Dashboard

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ABSTRACT

We designed and tested a goal-based productivity tool aimed at increasing work efficiency and motivation when using a word processor. Our design focused on three main design principles: 1) The use of objective productivity goals (e.g., word count), 2) displaying easily interpretable data to assess progress towards goals, and 3) minimizing distractions from a primary task, while also allowing the appropriate amount of attention capture from notifications. We implemented user tests with nineteen participants which consisted of choosing from different widgets and tools, creating measurable goals, and evaluating three different notification systems. Some participants also had their eye movements tracked. We found that users prefered to display data and tools the were relevant to on a daily timeframe compared to more temporally distant scopes. Users also prefered notifications that were dynamic and attention grabbing. The results allow insight into how notifications and data should be displayed to increase productivity.

INTRODUCTION

From academics to industry many people use word processors to meet deadlines on papers and meet performance criteria. In order to reach these goals, it behooves users to take advantage of applications and tools that track work progress. In addition to the main task of writing a paper, other prospective tasks, such as checking email, noting appointments in a calendar, and chatting online, can interfere with completing the user's primary task. Existent productivity tools and media applications are separated from the text editor; this separation can impede a long continuous and productive work session.

In order to address this problem, we implemented a conceptual, unifying application that tracks productivity while also integrating other work-related tools. The application allowed users to make and track measurable word count goals in real time through dynamic widgets. The application also included unobtrusive notifications and and options for reminders. All these functions and data were available in a persistently available overview so the user had accurate productivity metrics.

We used this basic design to test design principles that might be useful when creating productivity monitoring systems, in addition to general interest in such an application. We tested in what scope users would want to track their progress. That is, if users preferred tracking their progress on short-term (daily) goals or long-term goals. We also tested what other tools users might want available while working (e.g., email, calendars, media feed). Finally, we tested how attentionally demanding users preferred notifications to be. These basic design components can be implemented in other integrated productivity tools.

BACKGROUND

In order to meet the needs and requirements of the proposed productivity-boosting application, we reviewed the literature regarding user workflow, aspects of attention and organization of data-displaying dashboards. Due to a paramount goal of the application's design is to minimize distraction while still providing dynamic information to the user about his or her workflow, we focused our review on how researchers have tried to understand and manipulate focused and divided attention. Our system also requires data output and visualizations that are easy to understand, thus, we reviewed how previous designers render information on dashboards and infographics.

General Aspects of User Focus

Mark, Iqbal, Czerwinki and Johns [13] found that certain attentional states a user might be in become more susceptible to distracting stimuli. The researchers determined that workers have four attentive states based on two orthogonal dimensions, engagement and challeng. The four states the authors identified are *rote* (highly engaged, not challenged), *focus* (highly engaged, challenged), *bored* (low engagement, not challenged), and *frustrated* (low engagement, challenged)[13]. After the researchers determined the different types of attentive states they categorized the types of interactions that are most prevalent in a workplace are face to face interaction, email, and Facebook[13].

Keeping these states in mind when designing for productivity is crucial, as the goal of a productive tool is to increase focus and decrease frustration or boredom. Displaying progress towards goals and being able to dynamically interact with the content related to the primary

task should increase both engagement and challenge, as the user can adjust goals to be both realistic but challenging.
In addition to the above four states, Kujala, Roto, Väänänen-Vainio-Mattila and Sinnelä [12] determined that a user's experience in software produce *hedonic* aspects and *pragmatic* aspects to the user's experience. The hedonic aspects refer to aspects of the system that are fun or pleasurable and the pragmatic aspects are the utility and usability aspects[12]. When analyzing the aspects of mobile phones, the researchers discovered that users on mobile phones found that pragmatic aspects (utility, usability) and hedonic aspects (identification, beauty) equally important[12]. When analyzing aspects of Facebook they looked at pragmatic aspects (utility, usability) and hedonic aspects (sociability, stimulation) and found that the hedonic aspects were significantly more important than the pragmatic aspects. The importance of the different aspects depend on the purpose and constraints of the software. As the present application is designed as a work tool, the pragmatic aspects should be more valuable to the users than hedonic ones.

Hurtienne, Landeck, Ludwig and Löffler [9] discussed that cursor trajectory can be used to determine what the user finds distracting because if when something distracting is displayed on the screen the user's cursor tends to move towards that object. The researchers also determined that the cursor trajectory could accurately determine the distance and positions of the distractor within a user interface[9].

Given the ever increasing sources of potential distraction from work, developers have designed applications to keep users focused and away from distracting websites. While the underlying idea of such productivity tools is valuable, they might not be as effective as one might hope. Collins, Cox, Bird and Cornish-Tresstail [6] used survey data taken from users of RescueTime to identify four main barriers that reduce the likelihood of a user taking advantage of useful productivity tool features: 1) data salience, 2) contextual information, 3) data credibility, and 4) action advice. In order for productivity data to impact behavior, the data must be made available (salient) to the user. Participants reported that having to go to an online source to check their data severely limited how much they actually used the available data. Second, the data must be interpretable in the context in which it is applied. That is, the data shown to the user must be relatable to actual behaviors and work patterns the user can regulate. It must be clear how the productivity data can be used to alter future behavior. Third, the data must be accurate and be presented in a way that makes it seem credible. Outliers in productivity data (e.g., leaving a workstation to take a phone call for a family emergency) can greatly skew results and mask the important, more representative behavioral patterns. Finally, it must be clear what behavioral changes should be made to improve work efficiency. Importantly, there should be elements that support reflection on how to meet goals (in the case of this study, work time goals).

The current application focuses on keeping data available, responsive to behavior (typing) in real time, and framed in the context of user-defined goals. These approaches should decreases the barriers to using such productivity data.

Time is precious to many students, as they juggle work, personal, social and study commitments. Judd [10] determined there is a substantial scope for students to reclaim and reallocate nonproductive study time to other aspects of their lives (more efficient study) and, at the same time, to improve their learning outcomes (more effective study). The author proposed effective strategies for students and educators to help minimise distractions such as taking regular technology breaks and deferring responses to incoming messages, monitor and analyse task contexts and switches. For example, such data could be used to provide real-time feedback to students on how much time they are spending on- and off-task and to restrict or delay access to distracting tasks during independent study. This became the motivation for our project for monitor analysis on how the users can productively utilize their time on studies/works.

Interruptions and Workflow

Researchers have spent decades trying to understand the various aspects of attention [4, 1, 11, 16] and how to optimize performance when attention needs to be divided [19]. There are several challenges that face designers when it comes to creating interfaces and systems that attempt to reduce distraction, maintain focus, and reduce boredom or fatigue.

One particular challenge lies in users effectively dividing attention between multiple ongoing or prospective tasks. Salvucci, Taatgen, and Borst [17] proposed representing multitasking along a continuum in terms of the time spent on one task before switching to another. The authors showed how sequential and concurrent multitasking can be accounted in a single unified theory [11]. The architecture provides the specification of resources and a framework for formalizing behavior in terms of procedural steps. The work on problem representation shows that the stored state of each task goal is critical for understanding what information must be stored and recalled during an interruption. Threaded cognition theory provides a framework for interleaving multiple tasks, thus integrating memory-based representation rehearsal processes with the performance of the primary and secondary tasks. The work suggests that memory rehearsal is a critical process during interruption and that any attempt to understand user behavior during interruption and resumption requires some consideration of how rehearsal can be interleaved with both the primary and secondary tasks. This process, however, requires cognitive resources.

The disruptiveness of interruptions is an important part determined by three factors: interruption duration, interrupting-task complexity, and moment of interruption. Borst, Taatgen and van Rijn [3] proposed a theory in the form of a process model that attributes these effects to problem state requirements of both the interrupted and the interrupting task: memory-for-problem-states. It is based on memory-for-goals theory and on research into the problem state bottleneck. It looks in detail at the cognitive requirements of each task. For example, where memory-for-goals predicts an interruption duration effect for every task, memory-for-problem -states specified this to tasks that need a problem state. The interruption duration effect is explained as the longer the interruption, the further their activation in memory will have decayed, and the longer it takes to retrieve them. The effect of interrupting-task complexity is explained as the primary task's problem state will be moved to declarative memory and result in higher resumption costs if secondary task requires a problem state. It can explain moment-of-interruption effects. Multiple studies show that it is better to be interrupted between tasks than in the middle of a task[2,8].

Disruptive environments and cognition limitations delay timely task resumption after interruptions [11,16]. Research indicates that the loss of self-awareness and motivation are the possible culprits for task-deferring and even procrastination behaviors[13]. Liu and Pfaff [13] attempted to introduce intervention, validates the effectiveness while also provides guidelines for designing such tools. Their tool aimed at real-time behavior correction by giving minute-by-minute feedback. This granularity difference determined WiredIn needed to be more delicate, user-friendly and adaptable to changes.

Yelizarov and Gamayunov [20], proposed increasing the effectiveness of the 'human-machine' system by preparing the human for work with a given machine, and by adapting the machine to the specific objectives of the human. Special attention to the latter case is given to the visualization system, screen, mouse and keyboard. Long work sessions result in increased operator fatigue, reduced attention span, and flawed decision making. The authors tested security event visualization system able to recognize changes in the indicators of its interaction with the operator and adapt its functionality and presentation capabilities to those changes to bring about an improved decision making performance as to speed and accuracy. The authors believe that these adaptation methods can go beyond security visualization to be generalized to any event visualization system and its continuously working operator. Similar approaches can be utilized for our project work to retain the attention of users using the dashboard.

The current work attempts to reduce the effects of task switching and divided attention by integrating other tools that are often needed while working on a manuscript, such as email. By integrating such tools into the main interface, less time is needed to switch between applications and returning to the primary task is less costly.

Attention and Notification Systems

One important design consideration for the current work is how notifications should be used to direct attention to peripheral tasks or processes. Some events require an immediate response from the user or to completely divert his or her attention to the peripheral task. For example, taking a Skype call from a supervisor might need to completely divert a user's attention away from other tasks. In contrast, some notifications might just want to alert the user to some small piece of information that does not require action.

McCrickard, Chewar, Somervell and Ndiwalana [15] created a three-dimensional model to capture essential differences in notification type based on the purpose of the notification. The authors identified interruption, reaction and comprehension as the different parameters of the model, which can be used to create notification systems. Notifications can fall on different values of these spectrums, and each has a different effect on attention.

Notifications high on interruption completely divert user's attention from the primary task. Notifications high on the reaction parameter are those that require immediate and accurate responses to the notification. Finally, notifications that convey information that needs to be understood fall under the comprehension parameter. Taken together, these parameters can be used to shape the ways notifications are designed in order to produce the desired effect on attention. For example, if a notification needs to display information that the user must understand and make a choice regarding that information, but it is not time sensitive, the notification might be high on the comprehension and response parameters, but low on the interrupt parameter.

The current application was used to test where on the continuum of interruption the notifications should be. We varied the dynamic aspects of notifications to see how intrusive notifications in this system should be.

Dividing attention and shifting attention also increases the mental workload of the user [19]. Bailey and Iqbal [2] used this observation to design experiments to determine when it is best to show a notification, in terms of its effect on mental workload (measured by changes in pupil size). They found that workload changes periodically, but, importantly, mental workload seems to be particularly low when task goals are near completion and when they begin. In other words, users are under less workload when transitioning between goal-directed tasks. This is important to consider when deciding when information-dense notifications are used, as participants might miss them or misinterpret them if they are in the middle of a task and their workload is high.

Iqbal and Bailey [8] continued researching the optimal time to present notifications without causing unnecessary distractions by aligning notifications to scheduled tasks and also anticipates when to display a notification based on perceptual cues from the user. Using cues of shifting tasks and attention, the authors proposed a system that builds task structures, which are then used to make adaptive notification schedules. A critical aspect of the task structures is when breakpoints occur. These breakpoints can take different forms, each with different implications on how attention should be diverted by the notification. A coarse breakpoint is when there is a transition between large tasks (e.g., switching from Microsoft Word to watch a quick video on YouTube). A medium breakpoint is when there is a transition between major aspects of a task, such as reviewing an article while writing a literature review. Fine breakpoints are those when there is a transition between "the smallest meaningful and natural unit" between steps in a task. An example of a fine breakpoint could be finishing the introduction section of a paper and moving onto the methods section. The user's behavior and interaction with the system can be used to establish when these breakpoints occur, which are then used to make an event-based scheduler for the notification system. While we did not implement such a system in the current user study, the current application could benefit from a more intelligent notification system in future iterations.

It is important to consider the limits of attention not only because systems should be designed to not overwhelm attention, but the nature of attention can lead to innovative design concepts. Vertegaal, Shell, Chen and Mamuji [18] discussed how user interfaces can be designed with human attention in mind, and reviewed some designs and technologies meant to capitalize on human attention. Many the augmented attention interfaces discussed use some form of eye tracking to infer when the the user is directing his or her attention. The interface then adjusts, based on where visual attention is deployed. For example, the authors mention using eye gaze to active the sound of a television channel when several are displayed at the same time. This way, the user can have several video feeds up at one time, but not be overwhelmed by the mixing of several audio channels. We also tracked eye movements in an attempt to understand where users direct their selective attention.

Dashboard Design Principles

Froese and Tory [7] discussed problem spaces for designing dashboards, as well as possible ways to avoid the problems or solutions. The authors stressed prototyping, considering the needs of stakeholders (particularly end users), and what is a greater interest to the project. One design element that the authors point towards is the visualization size and density based on what visualization methods commonly used. Large elements could take an unnecessary amount of screen real estate, but making the same element smaller will lose readability. Another element of design to consider is making the dashboard customizable, yet at the same time restricting the user from making big design decisions. An example of this being letting the user choose how to represent data (e.g., graphs, pie charts, etc) while this might be useful for the readability of the data by the user, it might not be the best way to represent the data. This leads to having data ready before prototyping begins to best map it to appropriate visual aids that will better convey the needed information. The consideration of performance factors in with the usage of data by the means of how to best access such data and to think about the size of data that must be worked on.

We implemented some of these design principles into our data visualization. Because space in the interface was limited, we used smaller graphics with low information density. This made them clear to read and interpret. We also allowed users to customize what data or tools to display.

Byrne, Angus and Wiles [5] looked into figurative visualizations and conventions against practices that rely on graphic purity through the idea of acquired codes. The authors discussed data visualization and infographic as visualization techniques, taken from the 2014 Kantar Information is Beautiful Awards. In examining them, it was found that, in both categories, figurative elements were displayed the most; common use for both of them was as labels. As for the composition in the categories, infographics relied more on the use of panels while data visualization used single representation the most [5]. Both of them had a consistent use of weighted panel layout with it being represented in 38% of the data visualization category and 39% in the infographics[5]. As for the representation of time, it was most commonly displayed in a linearlayout, and was commonly placed in the peripheral section of the layouts.giving the meaning that it is commonly used and easy to unserdatan by the audiences. Exceptions to this was when time was represented in a circular manner most commonly for cyclical ranges of time. Other patterns that emerged from looking at the dataset was the use of shapes in various sizes to demonstrate a comparison between different quantities. The overall idea gathered from this paper was that it is better to deviate from a graphically pure approach to better use the audience's prior knowledge to communicate effectively as well as guide their experience when viewing the data.

Zacks and Tversky [21] investigated the common use of bar graphs and line graphs. The guiding ideas behind this research was that cognitive naturalness played a key part in the interpretation of graphs as well as information-processing based on the data presented. Three different experiments were used in this study. In the first experiment, participants looked at unlabeled graphs that only showed two points and the participants needed to describe what was depicted in the graph. The second experiment was similar to the first but, this time the bar and graphs were labeled on the vertical edge as height and the horizontal edge of one extreme being male and the other female and in other scenarios it displayed 10-year-olds and 12-year-olds on each extremes. In the final experiment the participants were given a description of a data pattern with a labels similar to that in the second experiment and were instructed to display the data in a graph after which they were given a questionnaire. The findings of this research showed that the prevalent way to describe the usage of a line graph was through trends and the most used for bar graphs was by stating that one was higher than the other. As we primarily displayed the change in wordcount over time, we implemented dynamic line graphs into our design.

DESIGN

The final design of our system evolved over several iterations. The first step of this iteration was performing pre-user study interviews to determine the needs and requirements of such a system outside of pre-existing applications as well as what applications potential stakeholders currently used to increase their productivity. These applications included, HootSuite, Hemingway, Rescue Time, and Stay Focused. These applications allowed us to see what kind of productivity tools are currently implemented in other systems and how they are being utilized.

We took the results of the interview to construct low fidelity prototypes out of paper. These prototypes were created so that we could test the types of graphical widgets (word count, media feed, etc.) that users would prefer to see while they are working, as well as establish a general testing procedure. We also tested if users would prefer to see pop-up notifications that disappeared when clicked on or display extra data related to the notification (e.g., plots of word count over time when a word count notification appears). The final design aspect tested was if the users would prefer an abstract goal creation where they have no data when creating their goals, or if they would prefer informed creation where they are presented information about their work session while they are creating goals.

Our final design implemented everything we learned from our background research, pre-user study interviews and both of our user studies. The final design allows users to create three word count goals in daily, weekly, monthly scopes. The application also allowed for the creation of three user specified reminders, and selection of three graphical widgets. The goals are synced to the three corresponding graphs to track the user's progress in in real time. The other three widgets were a calendar, email, and media feed. The reminders that the user creates were synced to the notifications so that the text of the reminder appeared when the notification interval expired. These notifications could be set to three different time intervals of 15, 30 and 60 minutes. The notifications appeared in one of three forms. Blinking notifications changed between the background color and a highlight color every 700 ms. Fading notifications transitioned between the background and highlight color, then back to the background color. Each cycle from background to highlight color took 700 ms. Finally, pop-up notifications appeared in the highlight color and stayed that way until clicked on. All notifications were dismissed once the use clicked on them.

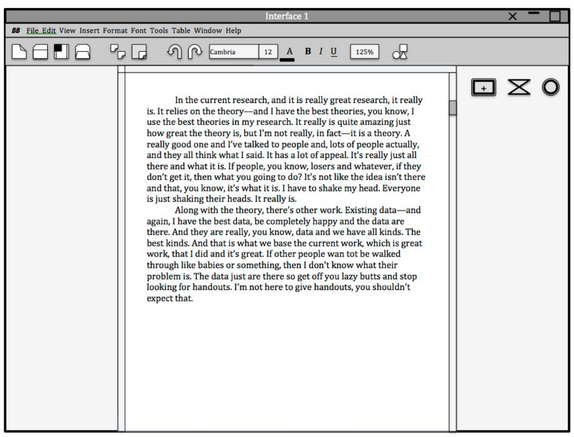

Fig. 1) Interface with abstracted view with toolbar functionality

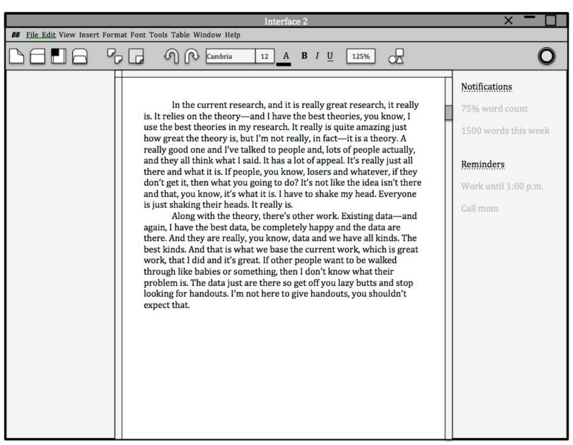

Fig. 2) Interface with informed view with persistent panel and single button

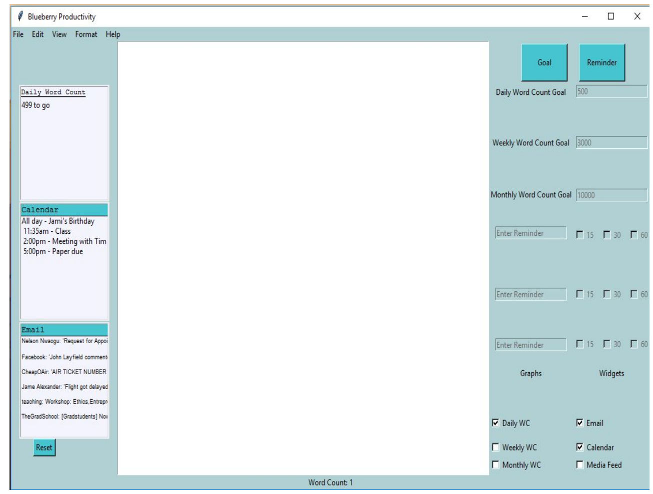

Fig. 3) Final system design

EVALUATION

Our main results came from our user studies, each study was attempting to find and refine how each aspect of the system (goal creation, reminder creation, and widget selection) is implemented or organized. The first user study focused how how each aspect should be arranged while the second user study focused more the actual function of each aspect.

We hypothesised that most users would prefer widgets that were useful in proximal time scopes, such as daily or weekly word count, and email. Regarding the notification type, we hypothesised that because the fading notifications would effectively capture attention without being as intrusive as the flashing notifications, the fading notifications would be prefered overall, but flashing notifications would attract the most attention.

Significance testing was conducted using ANOVA for incremental data and Pearson's Chi squared for categorical data. Open-ended responses were analyzed for common themes across participants.

PARTICIPANTS

For the second user study we recruited 19 participants with a mean age of 26.8 (*SD* = 7.93). Of those participants, five were computer science students, seven were psychology graduate students, three were engineering students, three were in health-related programs, and one was a education student. The seven psychology students were selected to have their eye movement tracked (three data sets were removed for low confidence in pupil detection across the procedure).

APPARATUS

The user tests were conducted on computers running Windows. Participants made responses with the mouse and keyboard during the different phases of the procedure.

A questionnaire was completed either digitally or in hard copy to collect data on the user's impressions of the notification system and application as a whole. Ranking questions used a 10-point scale, and other questions were open-ended. See Appendix 1 for an example of the questionnaire.

Eye tracking was accomplished with a Pupil Labs two-camera mobile eye tracker. One camera with IR light recorded the participant's right pupil while the other recorded the field of view. Fiduciary markers were used to establish interest areas at the time of analysis. The eye tracker was powered by a second computer independent of the one running the application, and collected gaze location at 30 Hz. A nine-point calibration procedure was used to map eye movements to locations to the field of view.

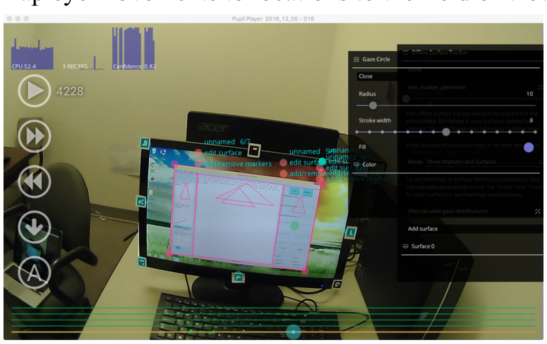

Fig. 4) Demonstration of the Pupil Labs eye tracking interface.

METHODS

The user study involved the user performing four different tasks to determine usability of the system as well as determining if aspects of the system are more detrimental to productivity. Participants first entered their word count goals for daily, weekly, and monthly intervals. The next task the user was asked to do was to select the the three widgets that would be the most informative to their current work session. Participants picked at least one of the daily, weekly, or monthly word count widgets and at least one of the email, calendar, and media feed tool widgets. Following widget selection the users typed a story about their morning for about a minute, in order to see how the widgets worked over time. Participants then set three different reminders each reminder would be set at a different time intervals so that the users can see each of the notification types. Lastly, the users discussed each of the notification types to determine which of the notifications was the most effective at capturing their attention.

RESULTS

The results of our second user study showed us that users preferred having a flashing notification, even though it was the most distracting notification type. Participants noted that the flashing notifications were more effective at capturing attention than pop-up notifications, $F(2,36) = 3.57$, $p = .039$, and they selected the flashing notifications for the prefered notification type most frequently, $X^2(2, N=19) = 7.68$, $p < .05$.

Regarding widget selection, there were significant differences between the six different widgets, $X^2(5, N=19) = 20.8$, $p < .05$. Users prefered the daily word count, email, and calendar widgets, overall. The monthly word count widget was never selected.

In addition to answering the design questions that were the focus of our user study, we also performed an eye tracking on a subset of our participants. Of the seven selected participants, data from two were removed from analysis for low confidence in pupil detection across the procedure. The results showed that users focused the most on the textbox, goal input section and notification area. The large proportion of time in the notification area was driven by participants consistently monitoring for notifications after creating reminders.

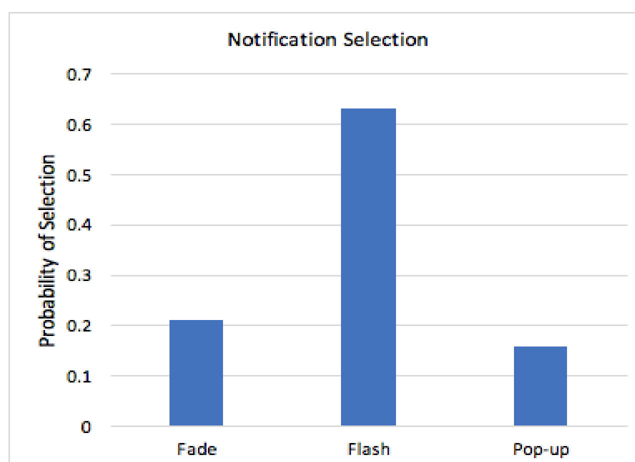

Fig. 5) Prefered notification type for final implementation

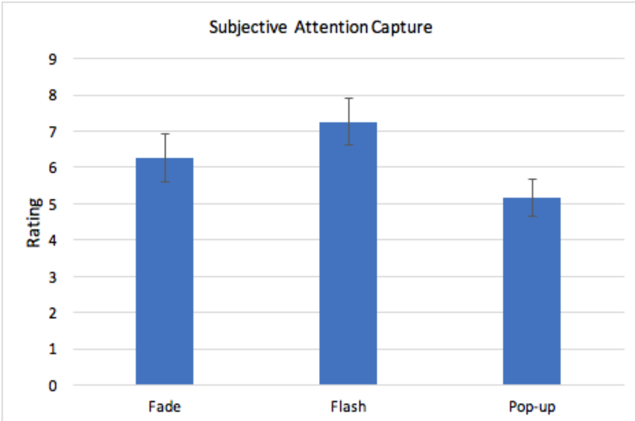

Fig. 6) The attention capturing quality of each type notification

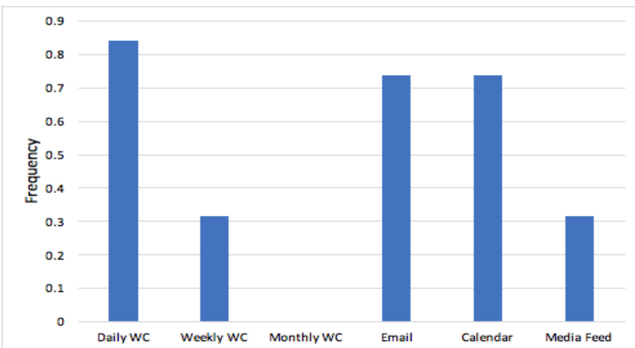

Fig. 7) Prefered widgets that are displayed while the user works

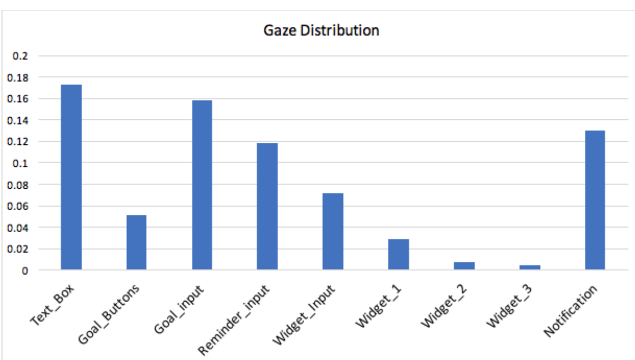

Fig. 8) Eye tracking results showing where users were looking

It was often noted in the open-ended responses that having the widgets, reminders and goals available was very helpful. Participants also noted that the ability to hide the displays in the margins would also be beneficial, as the widgets and information-dense righthand margin could be distracting.

DISCUSSIONS AND IMPLICATIONS

The results of our second user study revealed some unexpected but useful findings. We found evidence to support our hypothesis that users would prefer widgets that are relevant for immediate tasks, as they are more useful in leading to action and reduce task switching [2,6] and give real-time feedback [13]. Surprisingly, users overwhelmingly prefered flashing notifications, and fading notifications were rated very similarly to flashing notifications regarding subjective attentional capture. This might have occurred because even the flashing notifications were not extremely interruptive [15], and the fading ones did not draw enough attention for users to find them useful.

Participants also showed great interest in incorporating this goal-driven system into commonly used word processors like Microsoft Word. The real-time feedback on goal progression was well received, and users noted they thought it would be very helpful, and would help motivate their work.

The implications of our research are that users would prefer to use a system similar to ours over a standard word processor, because it condenses productivity data in clear and concise displays. Our system satisfies the needs we established early in this project, because we created a system that allows for information to be initialized before the user starts and then it pushes that information into the background allowing for the user to focus solely on their work. If a notification becomes activated, it can capture attention, but not distract from the main goal of writing if the users prefers not to respond immediately.

From this system we were able to gain the understanding that productivity systems are not just simply a few graphs displaying data that the user wants, but rather intricate connections between what the user wants to see, how that information is being displayed, and lastly how the smallest changes can take the user focus away from their workflow.

Future Directions

The participants of our second user study also noted several instances where the current application could be improved. Most notably, users wanted functions that come standard with many contemporary word processors, such as spellcheck and autocorrect. While not the primary focus of this project, it is important to note that these kinds of features are standard for such productivity tools, and should be incorporated into final releases of such software.

Participants also showed interest in time-based tools, such as stopwatches and work timers to track the user's time spent working. This could be used to establish "break" periods to time to switch tasks if multiple projects need to be completed within the same time frame.

CONCLUSION AND FUTURE WORK

In the current user test of a productivity tool integrated into a basic word processor, we took aspects of the attention, work efficiency and design fields to test what kinds of features users would want in such an application. We found that users prefer having access to data that helps them see their productivity in the short term, and notifications that adequately capture attention through changing shade values. These basic design principles can be implemented and should be considered when developing productivity tools that show users their progress in real time.

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APPENDIX 1
User Study Questionnaire
Questionnaire:

1) Fade-in/Fade-out Notification (15 min):
How effective do you think this notification would be at capturing your attention.
Not effective 1---2---3---4---5---6---7---8---9--10 Very effective

2) Flashing Notification (30 min):
How effective do you think this notification would be at capturing your attention.
Not effective 1---2---3---4---5---6---7---8---9--10 Very effective

3)Pop-up Notification (60 min):
How effective do you think this notification would be at capturing your attention.
Not effective 1---2---3---4---5---6---7---8---9--10 Very effective

4) Which of the three notifications did you prefer overall?
Fade-in/Fade-out Flashing Pop-up

5) Why did you prefer your selection to the above question?

6) Name one feature you liked about this application.

7) Out of the current feature set, which one has room for improvement.

8) Name one thing that you think is missing from this application that you think would be beneficial.

9) Would it have been beneficial to have data hidden after selection or keep it persistent?

10) Do you have any other comments about this application?