HW2: Heuristic Evaluation

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Introduction

Checkmark aims to solve a very real problem in contemporary America: parental involvement in childhood education. However, the change technology has wrought on society raises both new opportunities and new challenges in tackling such societal issues. If we are to involve parents more in their children's education, we must account for–and take advantage of–the effect technology has had on society. To this end, the project Checkmark is an attempt to connect teachers to parents. I will provide some highlights and some weaknesses I found while testing the prototype located at the url http://mglowe.scripts.mit.edu/813/checkmark/gr4/.

I will mostly focus on the Nielsen heuristics, but in order to provide a full evaluation, I will also judge the prototype based on other Tog's First Principles and Shneiderman's 8 Golden Rules.

Weaknesses of Design

First, I will describe the aspects I found detrimental to the User Design:

1. (Figure 1) The Logo does not link anywhere–usually it directs back to the "home" page, or to the most frequently used page: Minor severity. (Shortcuts ((S)hneiderman), Flexibility and Efficiency ((N)ielsen), Efficiency (T)ognazzini).

2. (Figure 2) The teacher can send grades to one student, but the notice never disappears; if the student changes, the notification is still present. This forces the teacher to read every single time to see whose grades were sent,
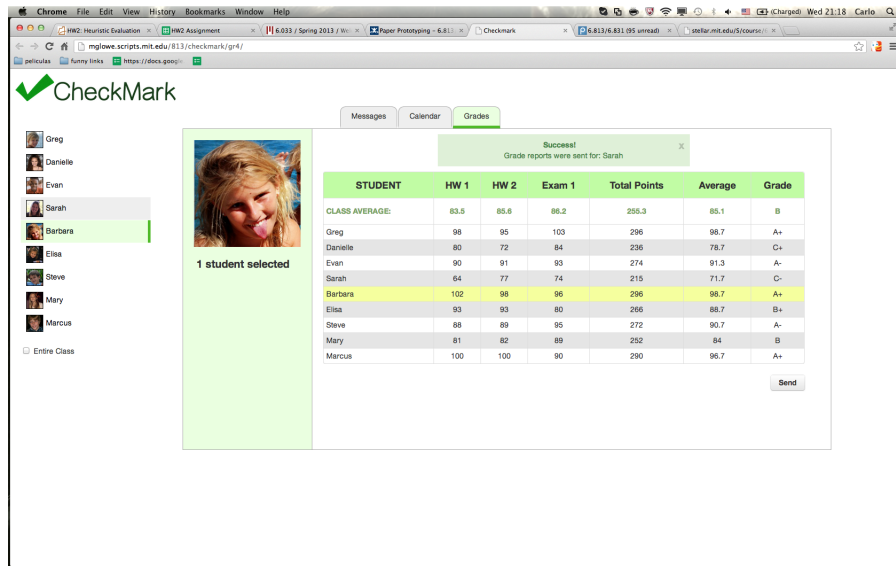

Figure 1:

Figure 2:

and can introduce errors if she's trying to send many students' grades. In this example, the notification says sarah, but the student that is selected is Barbara. Moderate severity. (Error prevention, (N)).

3. (Figure 3) When the teacher sends a private message to one student and then adds others to send a different message (as in task 3 of the scenario), the original messages show up as if the teacher had sent the private correspondence to the whole class. This creates the possibility to alert students of something not meant for them, or of neglecting to notify a student of something meant for them. Major severity. (System Status(N), Error Prevention (N), Reversible actions (S))

4. (Figure 4) The "Send" box in the messages page does not allow for wrapped text; this can cause the user to have to go back to check the beginning of his message if the text is too long. Minor severity. (Aesthetics (N), Readability (T), Error prevention (N))

5. (Figure 5) When creating an event, the teacher has the option to issue a reminder. However, it is not clear if the system will remind the student every time the selected time interval has passed, or if it will remind the student that much time in advance. This may be annoying to students, or cause them to not get enough reminders. The student should remember
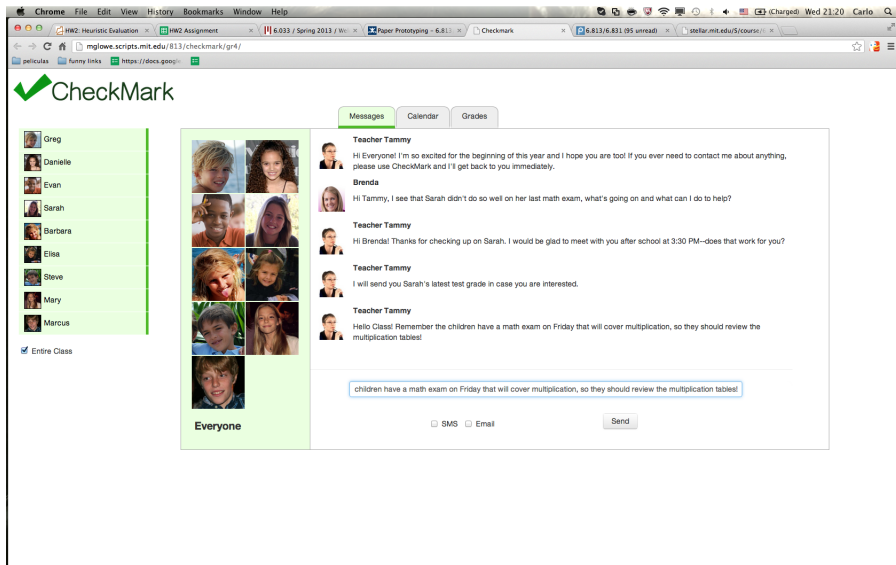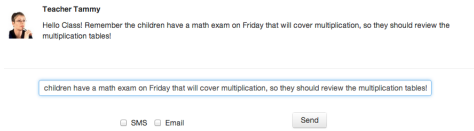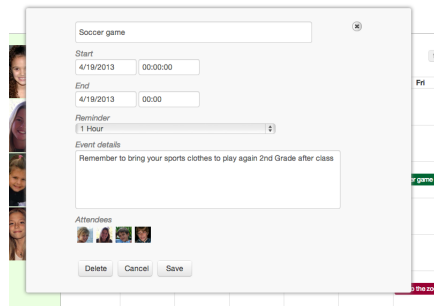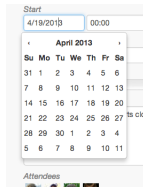
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Figure 3:

Figure 4:

Figure 5:

Figure 6:

anyway, and the reminders are more for convenience, so it is not of major severity. Moderate severity. (Consistency (T), Error prevention (N))

6. (Figure 6) When creating an event, the teacher has the option to select a date for the event. The dropdown menu continues counting dates without notifying of the change of month, which is out of line with the standard calendar design and can force extra cognitive load on users. Cosmetic severity. (Match real world (N), Error Prevention (N), Aesthetic, minimalist design (N))

7. (Figure 7) Initially, the calendar page by default shows the events for a given month in one of two ways: if no students are selected, it shows all events, and if some students are selected, it shows only the events for those given students. This is not apparent immediately, and there is no guiding text, which may cause confusion as to whose events are being displayed. Moderate severity (Help and documentation, visibility of system status (N), Defaults (T))

8. (Figure 3) A message cannot be unsent; this would be a useful feature in protecting students' privacy, particularly when a teacher that has to send many messages sends private information to the wrong individual. Major severity (Put User in Control, Simple Error Handling (S), Error Recovery (N))
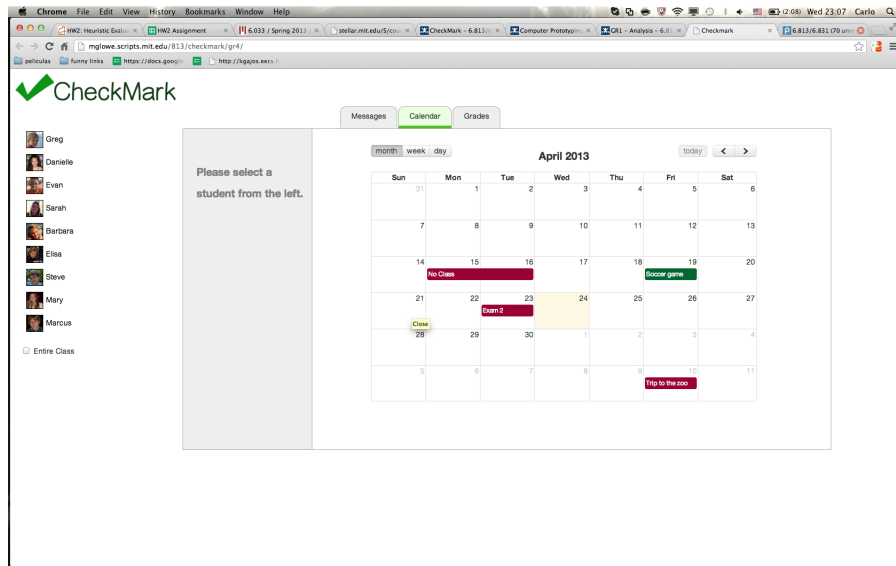
Figure 7:

1 Strengths of Design

Now I will talk about the things I found particularly nice about the implementation shown here.

9. Sending a message requires the teacher to only press Enter or Send. This aids teachers to send many messages quickly, as may be necessary when discussing students at the end of the school day. It also follows the standard interface for many chat programs, which reduces the learning curve. (Consistency and Standards (N), Efficiency (N), Shortcuts (S), Learnability (T))

10. The use of shades of green and black in the design makes it a very universal design that takes into account all possible users of the app. Any highlights are yellow, which allows color blind users to take use the app easily as well. (Aesthetic & Minimal Design (N), Color Blindness, Readability (T))

11. The option to send a message by email, text, as well as through this system offers great flexibility of design, and is visible and easily selected. Furthermore, it allows teachers to access parents a variety of ways, which is particularly useful during emergencies, and embraces the changes that technology has caused in social dynamics. (Flexibility & Efficiency, User Control & Freedom (N))

12. (Figure 2) The message cues such as that presented in figure 2 minimize the short-term memory load, particularly for a teacher who has to send many
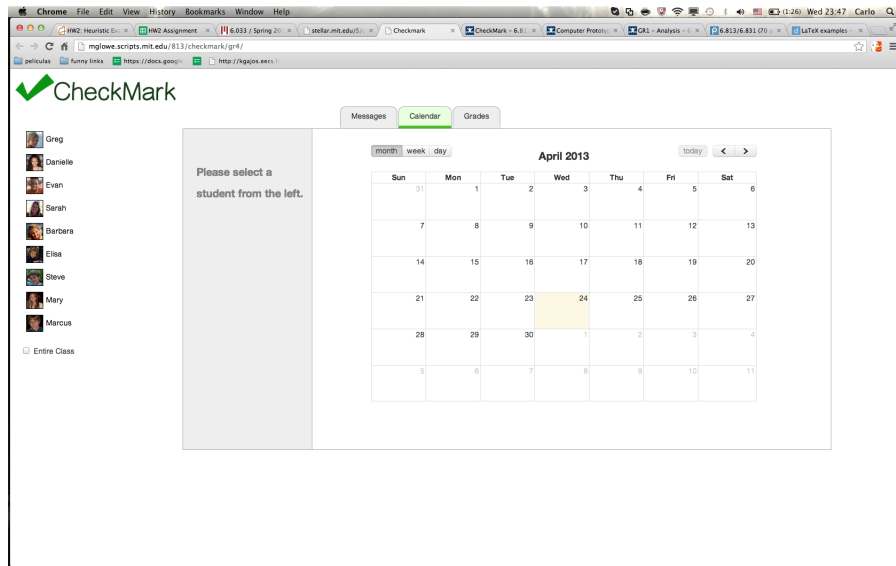
Figure 8:

notifications of her students at once. This will prevent many overworked teachers from committing errors! (Reduce Short-Term Memory Load (S))

13. (Figure 7) The ability to filter the students' calendars also reduces short term-memory load. Furthermore, it functions similarly to all other filters on the website, such as the one present in the message window, maintaining consistency throughout all parts of the website. (Reduce short-term memory load (S), Consistency (T))

14. (Figure 7) The ability to select a or event directly to manipulate the day's events is incredibly intuitive. This is particularly useful for older teachers, who may be averse to exploring different methods to modify the calendar. (Matches Real World (N), Human Interface Objects (T)).

15. (Figure 2) Closing dialogs maintains consistency throughout many other systems by having a small "X" in the corner. Perhaps consider putting another "X" on the top left corner to match Mac users' expectations? (Anticipation, Consistency, Efficiency (T), Dialog closure (S))

16. (Figure 16) The metaphorical tabbed design, as well as the consistent formatting from page to page affords the user to easily explore all parts of the webapp. Furthermore, because it encourages the user to explore, it is very learnable. Perhaps you should consider giving the tabs a particular order, such as alphabetical order? (Explorable interface, Learnability, Metaphors, Visible Navigation, Track State (T))

Conclusion

This design has clearly been carefully sculpted; every detail seems to be designed to support a uniform design that is connected to other programs and devices, and takes cues from real social interaction. You have clearly already designed Checkmark thoughtfully, and taken extensive user feedback into the decisions you have made. Furthermore, many details that escape many developers or designers, such as the choice of colors, have been considered and included. I hope that my comments also prove useful to you. I attempted to be clear and concise, but please contact me if any clarifications are needed. My email is cmannino@mit.edu.

I wish you all the best in completing your next goals!