Heuristic Evaluation of the 23andMe iOS App

Objective:

        To test and evaluate the process of navigating through the 23andMe iOS app containing ancestry reports, health trait reports, research options and more. 23andMe is a company providing informative services based on the gene/DNA analysis of a person.

Additional Notes:

        Due to the large amount of functions offered by the app, only key features relevant to the heuristic of topic will be covered.

Severity Ratings:

0 - Good usability/Not a problem
1 = Cosmetic problem only: need not be fixed unless extra time is available on project
2 = Minor usability problem: fixing this should be given low priority
3 = Major usability problem: important to fix, so should be given high priority

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1. Visibility of system status

- Receiving gene test results:

        0 — After the gene kit is mailed to the research facility, there is a tracking feature with a clear step-by-step status update of the research progress, up until the reports are available to the user.

- Research surveys:

        2 — Optional user contribution to the health database is collected using surveys. The approximate time used for each survey is listed at the start, but there is no indication of progress during survey entry.

- Report updates :

        2 — New information for the reports is updated from time to time. However, there is not a clear indication of new available research reports and features changes upon re-entry into the app.

2. Match between system and the real world

- Menu & headings

        0 — The menu is logically ordered with the most important features located on the left two buttons, and the less accessed features to the right. The headings are intuitive and in line with real-world terms.

- Caffeine tracking feature:

2 — The new caffeine tracking tool provided under the research subdivision seems out of category. Future updates can potentially consider adding a new item to the menu e.g. wellness tools, which can also integrate the "health action plan" feature.

- Content and descriptions:

2.5 — Some overly technical terms are used to explain report results (e.g. "paternal haplogroup"). Although it is necessary to use some technical terms in order to accurately define medical-related information, in some areas it becomes a barrier for the user to spot what is of interest to them. For example, many would be harder for less literate users to understand.

3. User control and freedom

- Exiting:

0 — Clear back or exit buttons are available when viewing reports, switching to a different category, etc.

- Forms & surveys:

2 — When prompted to answer surveys, there is not a clear indication of an option to go back and change a previous answer.

4. Consistency and standards

- Interface:

2 — When re-entering the app at times the menu bar background is misaligned.

- Website & app consistency:

2.5 — App organization and content is very consistent with main website. However, this can be a disadvantage at times, because the dense information of a health report that is easier to process in one webpage on a computer, becomes much more crowded on the smaller screen and makes a single page too long. Instead of preserving the structure of a single page, it could potentially be better to create more navigation options, with the possibility of accessing more information at the next level.

5. Error prevention

- Sign up & gene kit registration:

0 — Two entry fields to ensure password setup is correct; barcode scan feature to simplify the gene kit registration process without having to manually type complicated strings.

6. Recognition over recall

- Educational Tutorials:

2.5 — There are many tutorials for all of the different categories of reports provided, but a lot of the content explaining the scientific theory is essentially the same. There could be a way to simplify the tutorials and reduce the time required for the entry-level user to go through orientation.

7. Flexibility and efficiency of use
   • Inexperienced vs experienced user:

2.5 — There does not seem to be a clear distinction between the novice and experienced user, as all information is equally accessible to both and there are no apparent shortcuts. It may be helpful to create an option to save interesting reports/articles for users to easily locate and reread in future uses.
   • Loading time:

3 — Most of the detailed reports take over two seconds to load. Optimization is needed, preferably by way of structuring the reports so that layers of information can achieve a better balance between loading time, amount of content displayed and navigation depth.

8. Aesthetic and minimal design
   • Infographics:

0 — Provide a great visual aid for understanding complicated data and scientific facts. Appropriate use of infographics, maps, flowcharts, etc.
   • Layout and graphics:

0 — Other than aforementioned report length issue, the design itself is quite simplistic, aesthetically-pleasing, and informative.

9. Help users recognize, diagnose, and recover from errors
   • Summary:

0 — Apart from common sign-up errors and doing something wrong in the process of preparing the physical gene kit, there are not many chances for the user to make errors, because the app mainly serves the function of presenting information rather than have the user perform actions. However, to prevent the misconception that the reports are diagnostic, the app reiterates disclaimers in tutorials and FAQs.

10. Help and documentation
   • FAQs

2.5 — Although the app provides FAQs at the level of each detailed report of traits and dispositions, there is no help section to tell new users how to use the app.

Overview:

      The issues with the 23andMe app are not serious, but can have far-reaching effects. The app does a great job of creating an easy-to-navigate, simplistic design; and has a user-friendly interface on the surface. However, the specific health reports are generated on the premise of being scientific and rigorous, making it challenging to present in a user-friendly way. As a psychology undergrad with some background in the life sciences, I still found the reading difficulty to be slightly above average. In addition, while tutorials aid the process of understanding the science and the restrictions, they are long and repetitive. Reports cover a lot of important information, but seem to be formatted in a way more suitable for a larger screen than for a phone app. Furthermore, as an app focused on personalized service, 23andMe should also opt to feature more personalization options for using the app itself.