

Prenetics Assignment

Hamilton Le | July 2017

Overview

1. Market Understanding
 - a. Research Methodology
 - b. Summary of Research
 - c. Answers to Danny's questions
2. Improving myDNA app
 - a. Identify core functions of the app which are important to both the user and Prenetics
 - b. User testing designed around those core functions, and analyze and brainstorm improvements to achieve core functions
 - c. Wireframes and UX mock-up for further testing
 - d. Addressing Danny's Questions
3. Creating a health & wellness app
 - a. SWOT Analysis of Prenetics & Quotes from Thought Leaders
 - b. Brainstorming App Ideas, based on Analysis
 - c. Introducing *Health Guru: Small Steps for a Better You*
 - d. Supporting Arguments for Health Guru
 - e. Addressing Danny's Questions
4. Appendix (research)

Market Understanding

Researching the current trends to give more input to the other parts of the assignment

Research Methodology

Leading Questions	Where to Research
Healthcare Industry	
What is the current state of healthcare globally? In Asia? In Southeast Asia?	<ul style="list-style-type: none"> - Analysis from the work of data scientists & data journalists
Who are the leading healthcare providers? Why? What's their approach? Is it able to be replicated and scaled?	<ul style="list-style-type: none"> - Look at manifestos of the best hospitals and healthcare professionals
How do healthcare companies balance the fine line of science-backed diagnosis V.S. pseudoscience?	<ul style="list-style-type: none"> - White papers/medical journals on health, preventative healthcare, etc
How to balance western and eastern (Chinese medicine) approaches to medicine?	
What have been/still are the barriers to preventative healthcare?	<ul style="list-style-type: none"> - Reach out to personal network in the medical industry. Ask about the issues they deal with, as well as if they had a wishlist for the industry, what would be on it?
Healthcare technology	
How do the tech giants do it?	<ul style="list-style-type: none"> - Keynotes from Apple Healthkit, Google Fit, etc.
Who are the thought leaders in HealthTech?	<ul style="list-style-type: none"> - Upvoted long-form articles from trusted sources
What are the most popular products right now?	<ul style="list-style-type: none"> - Most downloaded apps on appstores, healthcare services with most users, etc
What are the most innovative/disruptive/crazy ideas in HealthTech?	<ul style="list-style-type: none"> - Startup lideas from Kickstarter, ProductHunt, Reddit.com, etc
User Research	
What is the sentiment towards health in Asia (specifically Southeast Asia)?	<ul style="list-style-type: none"> - Websites of hospitals in SEA, personal stories, quality of insurance providers, ER wait times, death rates for medical procedures as compared to the rest of the world, etc
What are the current behaviors surrounding health in SEA?	
What are the UI/UX differences between US & Southeast Asians in regards to products/services which are both physical and digital (not just health apps)?	<ul style="list-style-type: none"> - Articles on designing for SEA users - Look at UI/UX differences for global apps which have been localized (airbnb, uber, news sites, etc)
What are the gifting traditions/behaviors in SEA?	<ul style="list-style-type: none"> - Similar to Red Pockets in China, does SEA have a strong gifting tradition?
How to take the best aspects of healthcare in SEA, and translate that into a digital form?	<ul style="list-style-type: none"> - Analysis: make an appreciative inquiry of the SEA healthcare system
How would I use my own experience with health and healthcare products?	<ul style="list-style-type: none"> - Revisit the apps, systems, and ongoing process of how I stay healthy
From the above questions, what would the customer persona's look like?	<ul style="list-style-type: none"> - Creating customer persona's from the research above

Would have liked to research if had more time

Summary of Research: Key Points & Lessons (Full research in appendix)

Healthcare industry

1. In 2015, 107.7 mil children & 603.7 million adults were obese worldwide. (pg 36)
2. For every 10K people, there are an average of 25 healthcare professionals in South Asia and 42 for East Asia. Global average is 45.6. In Indonesia, there are only two doctors per 10,000 people (pg 37)
3. Best hospitals are a result of.... (pg 38)
 - Patient to staff ratio
 - Ease of administration (check-ins, medical data, etc)
 - Leading practices and research
4. Difficult to leapfrog in healthcare. The more incremental the improvements, the less likely the firm can implode on itself. (pg 40)
5. Those in the medical space generally wish for everyday people to put more effort into educating themselves, as well as having motivation outside of health being trendy or just looking good. (pg 42)

Healthcare Tech

1. Apple's vs Google's healthcare ecosystem (pg 43)
 
2. "The platform pivot from data capture to medical research, and soon, to personal care will be truly transformational. It will lead to better data, faster results, with less development." (pg 43)
3. Whether the behavior is a "wanna" versus a "hafta." is "the difference between work and play /slavery and freedom / efficiency and pleasure." When faced with "haftas," our brains register them as punishments so we take shortcuts, cheat, skip-out, or in the case of many apps or websites, uninstall them or click away in order to escape the discomfort of feeling controlled. To change behavior, products must ensure the user feels in control. People must want to use the service, not feel they have to. (pg 44)
4. Many apps start you at 10k steps and you adjust later, but 'Up' by Jawbone will let you know the average steps for a person with similar height, weight, age, etc. Feels more personalized and sets you up for your first wins. (pg 45)
5. Not much innovation in the app space for the last 5 years. Most popular are still MyFitnessPal and Nike Run app. Latest popular apps were for education or research (aggregators, AI chatbots), 1:1 affordable diet coaching / customized diet plans / free coaching, Meal subscription services, smart scales, etc. (pg 45-52)

User Research

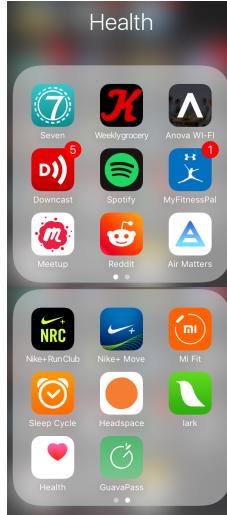
1. 3.7 billion in Asia, 27% internet penetration and 82% mobile penetration (pg 53)
2. 605mil people in ASEAN, average age is < 27 (pg 53)
3. Asean Healthcare industry was \$68 billion in 2014 (pg 53)
4. Mental Healthcare is largely stigmatized, especially with dementia in SEA (pg 53)
5. Asia's on track to becoming the 'oldest' region in the world. Almost 1 billion elderly by 2050 (pg 53)
6. Half of Indonesia lack state health coverage (pg 53)
7. 4/5 healthcare professions in Indonesia regularly search on the internet for more work-related info (pg 53)
8. UX and design aren't appreciated to the extent they are in "the west" and is largely pioneered by western design (pg 54)
9. In SEA, content needs to be lighter and less text dependent. People tend to be much more visual and are led by multimedia; gloss and shine prevail. (pg 54)
10. For example, in Cambodia, people respond well to direct marketing which other markets would refer to as "spam". They feel important when companies make an effort to contact them and address them personally. (pg 54)
11. Gifting traditions and designs very different regionally. (pg 55)
12. Value's not always placed on the contents, but in the tradition itself (pg 55)

Addressing Danny's Questions / Personal Experience

95 kg in 2012



My health-related apps



72 kg in 2016



4) Downcast & Spotify
While not viewed as health/wellness apps, listening to podcasts during repetitive workouts made me feel extra productive. Music was for the more intense workouts. Couldn't have been as disciplined without these.

5) MyFitnessPal

It was hard getting used to food logging the first few weeks, but after I logged most foods I usually eat, it was nice to just have the list of pre-logged meals.

Improvements: lots...actionable data, community engagement, UI/UX.

What are some of the health and wellness apps that you like and why? What are improvements that can be made?

I had been overweight since I was 13 until just a few years ago, and as you can see from the left, I've personally gone through the experience of changing my lifestyle to live a healthier life, using personal discipline & detailed tracking. The apps I used most during that time are on the left, ordered by importance/usage to myself. Some notable apps were:

1) Seven

Simple & quick exercises without any equipment. It was my trojan horse to more rigorous workouts

Improvements: Paid version has more workouts, but the free version was good enough for me.

6) Meetup & Reddit

Again, not seen as traditional health apps, but I used these to find like-minded people, whether it was people to run with, or just reading FAQs/AMAs on beginner topics I was scared to ask others.

Improvements: Wish there was a stronger integration between health apps and a community.

2) Kate & Kimi Online Grocery Store

Understanding that diet is 70-90% of weightloss, I bought a food scale and automated grocery delivery every Monday & Thursday morning.

Improvements: K&K isn't a tech platform, so I still had to manually press confirm each week.

7) Air Matters, Nike Run, MiFit

These were the combination I used for running, which was for both cardio and a mental break.

Improvements: I know Nike & Xiaomi has its own ecosystem, but I preferred to use the best of each. Wish there was a provider which had those same great functions.

3) Anova (Sous Vide App)

Even tho I enjoy cooking on the weekends, I usually prefer quick meals during workdays. My sous vide machine and pressure cooker are great for a meal which takes 5 mins to prep, set/forget, then you have a healthy & affordable meal.

Improvements: Having 1 app per appliance can get annoying. Hoping soon for Kitchen IoT.

8) Sleep Cycle

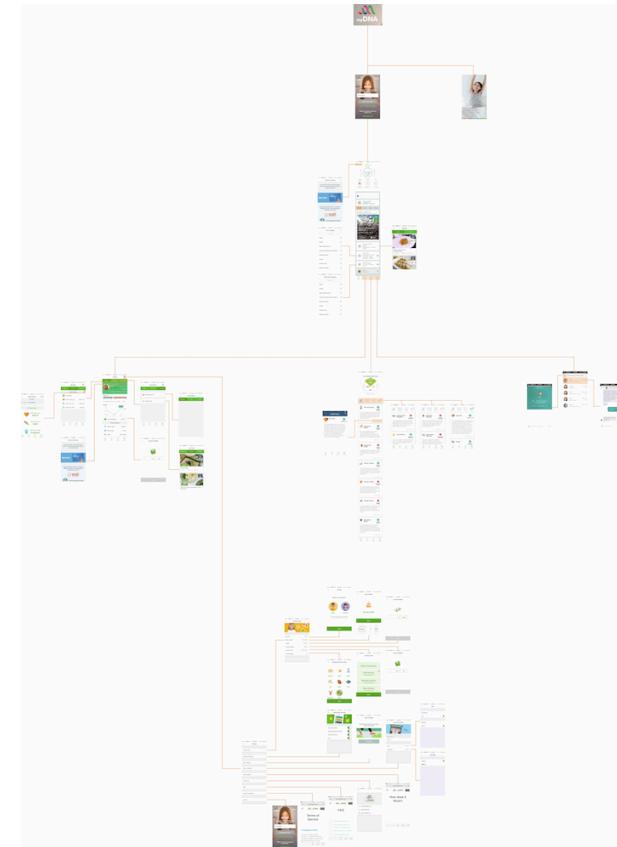
Loved the function where it would wake you up in non-REM sleep within a 30 minute window before your alarm.

Improvements: Been tracking for 2 years but haven't seen the actionable data from Sleep Cycle or Apple. Not sure where to get it, so I wish this was more clear.

Improving myDNA

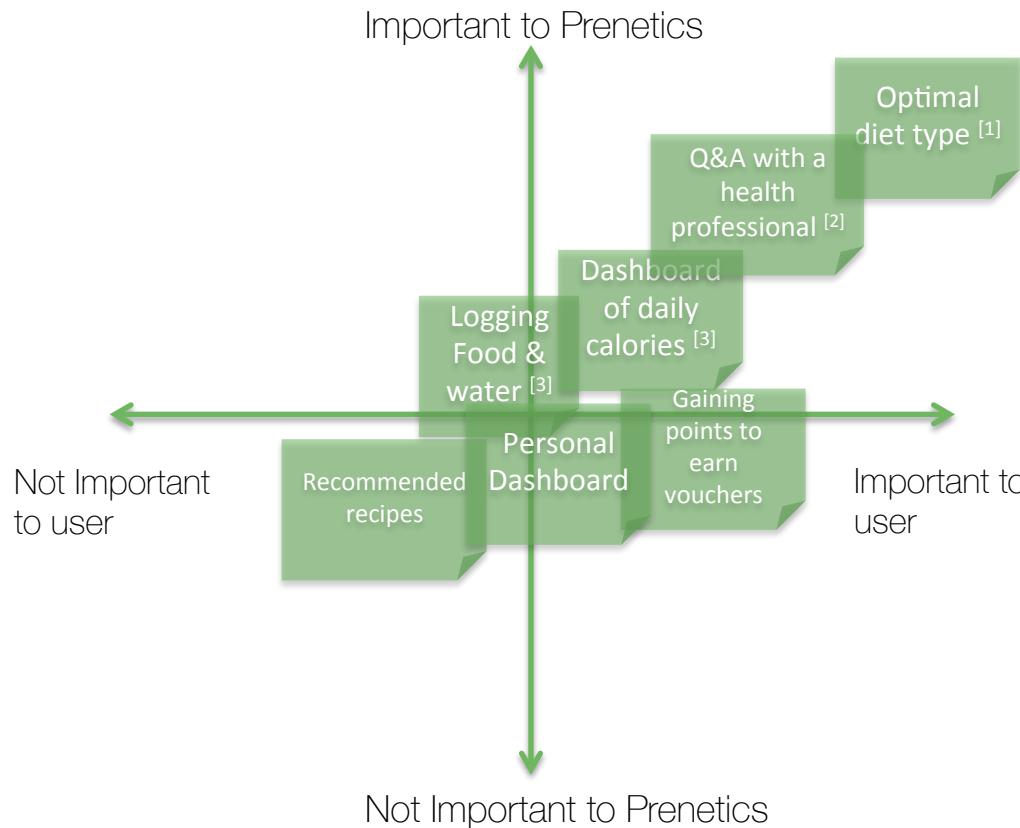
Re-Design Process

1. Identify core functions of the app which are important to both the user and Prenetics
2. User testing designed around those core functions, and mapping out the high and low points of the user journey while performing those core functions. 3 test subjects:
 - i. 29yr old, female, medium diet consciousness, 1-3 hours of activity/week
 - ii. 27yr old, male, low-medium diet consciousness, 4-6 hours of activity/week
 - iii. 29yr old, female, high diet consciousness, 10-15 hours of activity/week
3. Analyze and brainstorm improvements to achieve core functions, based on user research & insights from market research
4. Wireframes and UX mock-up for further testing
5. Addressing Danny's Questions



Link to full Image:
http://www.hamiltonle.com/prenetics/myDNA_original_map.png

1. Core functions of myDNA which are important to the User & Prenetics



Importance Parameters

- What I deemed important to the user was value & guidance from the app in regards to how to live a healthier lifestyle
- What I deemed important to Prenetics was the user understanding the importance of their genetic makeup in accordance to nutrition, since the user can only use the app after taking a myDNA test

Conclusion

1. The myDNA report would have been the most anticipated information by the user after their DNA test.
2. Due to there being a large knowledge gap between the DNA results and understanding nutritional intake, the next most valuable function would be chatting with a health professional to further understand how their DNA results impacts diet. This would fill in the gaps before the user can start to manage their own nutrition.
 - Since many users are newcomers to a healthy lifestyle, the role which Prenetics plays in this app would primarily be onboarding people onto a healthy lifestyle (not just an app), hence the optimal diet type and Q&A being highly important.
3. Once the user feels confident/comfortable with what types of foods fits their DNA type, they then need a seamless way to integrate food logging into their current lifestyle, whether that translates to speed of logging, various ways of logging, or both.

2. User journey to test the core functions: A) Optimal Diet Type



User Journey



Question to test subjects: "You did a DNA test one week ago to understand your nutritional intake. Can you find where the results are?"

High points

1. Optimal health type only 1 click away
2. Lots of useful and important info which newcomers may not know/understand. An opportunity here to give more info to potential 'superusers'.

Low points

- A. Not seeing a button which explicitly represents connection between DNA and diet, so user clicks on the calorie dashboard or my profile.
- B. Not knowing what is static info and what is a button.

Conclusions

- Renaming 'myDNA' tab to DNA Diet, Diet, etc could decrease confusion.
- If we make buttons more pronounced and obvious, then users may be able to navigate the app features more easily.
- Secondary navigation could be more obvious, have a different design, or different navigation logic.
- Lots of useful and important info which newcomers may not know/understand

2. User journey to test the core functions: B) Q&A w/ Health Pro



Question to test subjects: “Now that you know your optimal diet, who can you ask to better understand how to take actions towards improving your diet?”

High points

1. Live chat is clear on main navigation
2. Starting a new chat is clear
3. Response time is 2-3 mins
4. Responses are detailed and personable.

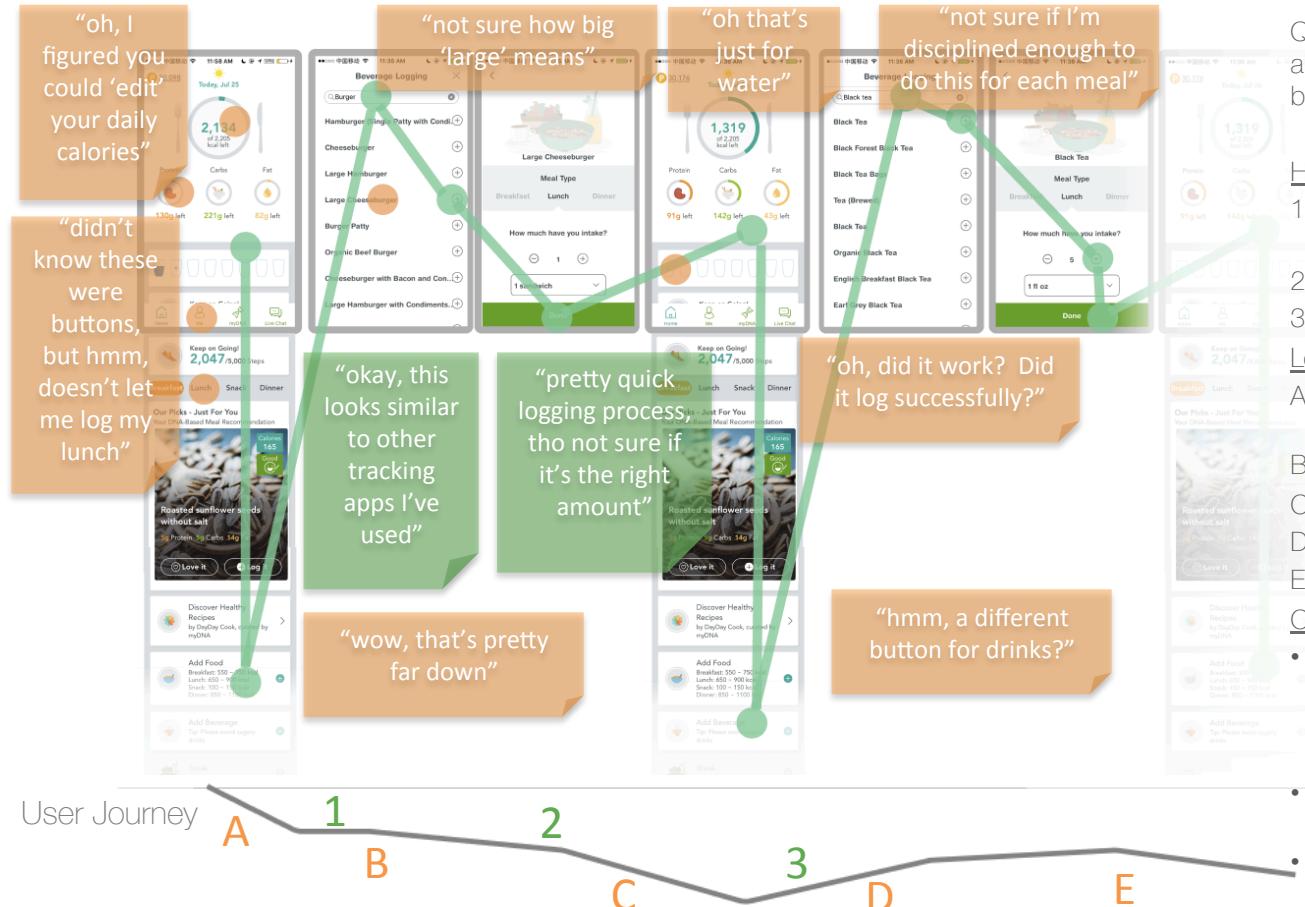
Low points

- A. Unsure if should continue existing chat or not
- B. Unsure what to ask and intimidated to ask a real person.

Conclusions

- Navigation doesn't re-invent the wheel and is intuitive
- Chat experience goes beyond what other chat experiences feel like (talking to a company on FB messenger, bots on WeChat official accounts, customer service chats on company websites, etc)
- To make the user more comfortable reaching out to their first health professional, there could be an onboarding slide (what to expect, comforting the user to ask anything, etc), or an FAQ so that users can get used to receiving info first, before they ask the professional more detailed questions.

2. User journey to test the core functions: C) Food Log & Dashboard



Question to test subjects: "Now that you know more about diet, I'd like you to log a meal. You just ate a burger and had some black tea."

High points

1. User experience is similar to other apps on market (Loseit, MyFitnessPal, etc)
2. Quick logging process for each food
3. Logging each item is the same process.

Low points

- A. User not sure where to log food. Took a while to find.
- B. Food items don't have much detail.
- C. Unclear validation of logging the burger.
- D. Surprised there's separate button for beverages.
- E. Many detailed steps to log each meal item.

Conclusions

- User was surprised the button to log food was below the food recommendations, which is perceived as non-essential info. Layout order can be improved.
- Once on the food search, the experience is similar to competitors
- Logging a multi-course meal is repetitive and requires discipline.

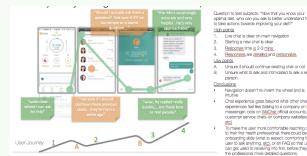
3. Suggested improvements of core functions, based on testing

User Testing

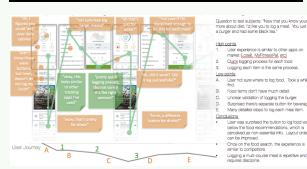
A) Optimal Diet Type



B) Q&A w/ Health Pro



C) Food Log & Dashboard



Conclusions

- App is a combination of a...
 - Static DNA report,
 - Calorie tracking,
 - Step counter,
 - Personal nutritionist,

...but by trying to be too many things at once, the app's objective comes off as unclear and cluttered.
 - The best functions aren't showcased enough for the user to invest time in, such as the Q&A with health professionals, the DNA report, or calorie tracking.
 - App already has a lot of personalized information, but the info is fragmented across the app.
 - Overall, UI design needs further improvements (consistent secondary navigation, what is and is not a button, etc)

Primary UX to Improve

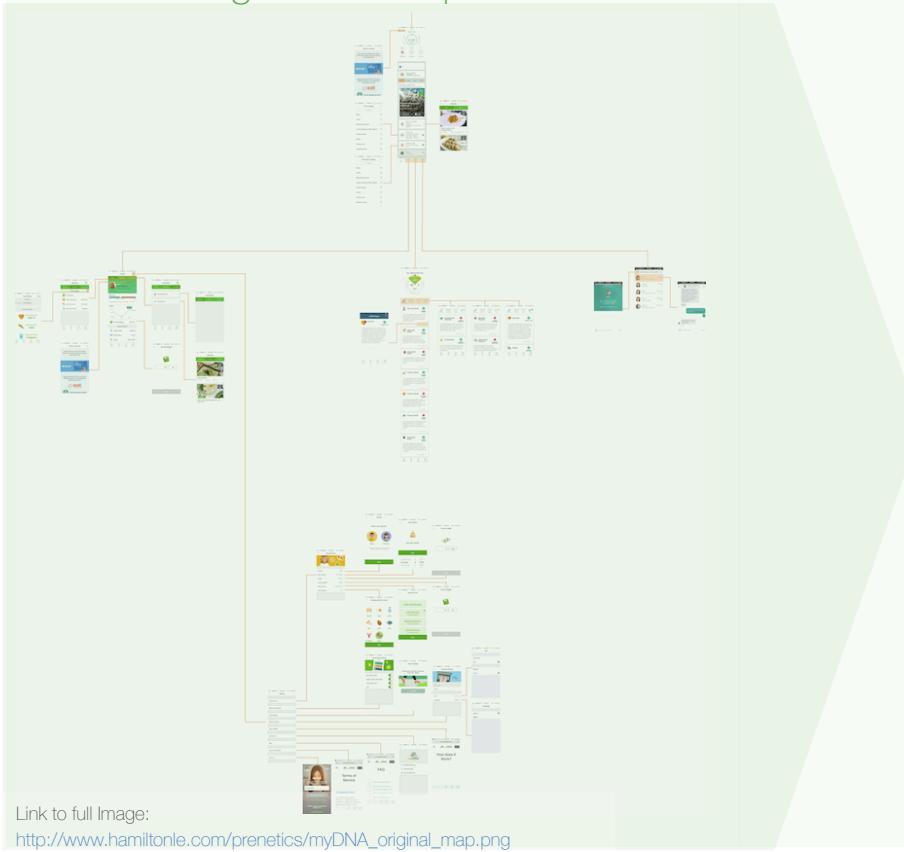
1. De-clutter and make app functions very clear; focus on:
 - Meal Logging
 - Health Education & Coaching
 2. Centralize any user-specific info into a sliding side-menu:
 - Profile (user info, avatar, weight, BMI, goals, game badges & points, dashboard of progress over X time period)
 - User Settings (Personal info, notifications, account settings, etc)
 - DNA report & Optimal Diet Type (since the info is static & after understanding their diet type, they will refer to the report less)
 3. Let calorie counting be easy as possible and varied, according to the user's lifestyle
 - Log now at each meal
 - Log all meals later once per day
 - Simple Logging

Secondary UX Ideas

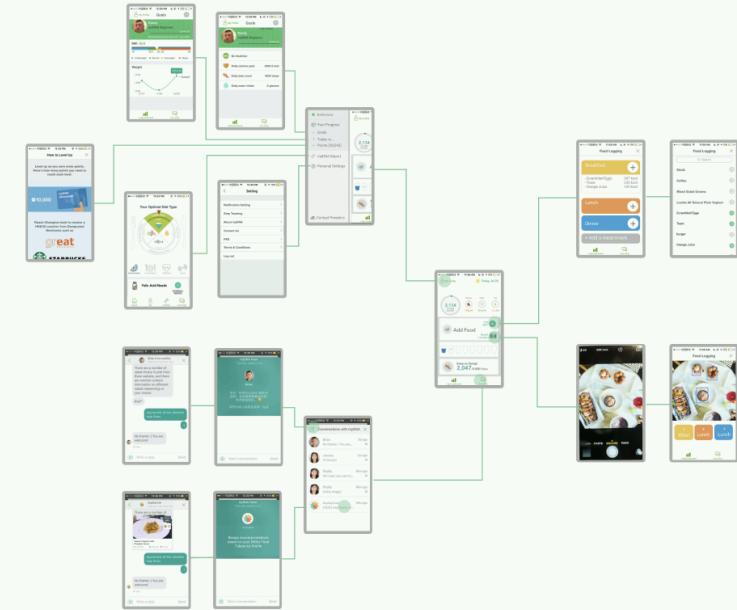
- Meal recommendations as a chatbot.
 - Allow users to be more informed, by opting into research related to their diet type/profile
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4. Wireframes and UX mock-up for further testing

Original UX Map



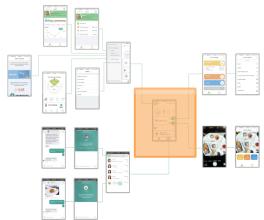
New UX Map



Link to full Image:
http://www.hamiltonle.com/prenetics/myDNA_suggested_ux_map.png

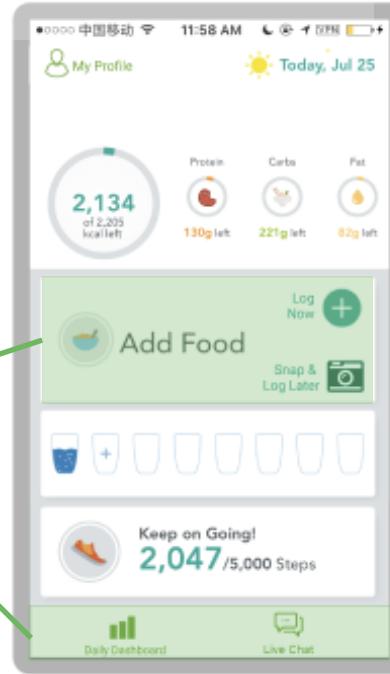
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Primary Navigation only focuses on 2 primary functions:

1. The dashboard for meal logging/tracking, and
2. Live chat for learning more about myDNA result, the impact on my health, and other beginner questions

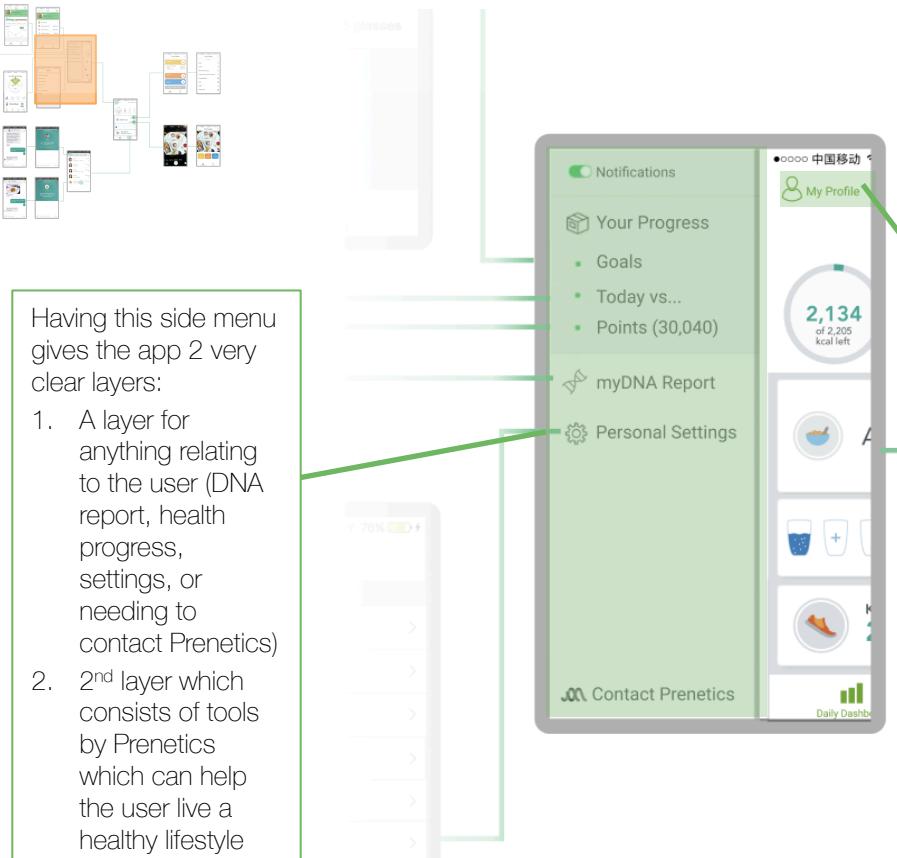


Primary UX to Improve

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The diagram illustrates the user flow through the app:

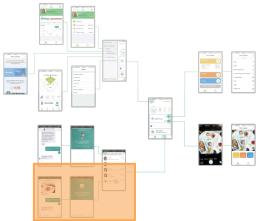
- Top Left:** A general app map showing various screens connected by arrows.
- Orange Box:** A detailed view of the "Food Logging" screen, which is divided into sections for Breakfast, Lunch, and Dinner. Each section lists items with their caloric content (e.g., Scrambled Eggs: 347 kcal). A sidebar on the right shows a list of items with plus signs for adding.
- Left Side:** A callout box highlights the "Add Food" button on the home screen, noting it is "above the fold" and provides quick access for logging.
- Middle Left:** A callout box highlights the camera icon on the home screen, suggesting options for "Snap & Log Later" or "Reviewing all meals at a later time".
- Bottom Left:** A callout box highlights the camera icon on the meal review screen, suggesting a "high-tech solution of computer vision" for quick logging.
- Bottom Right:** A callout box highlights the meal selection buttons ("Bfast", "Lunch", "Dinner") on the meal review screen.

Primary UX to Improve

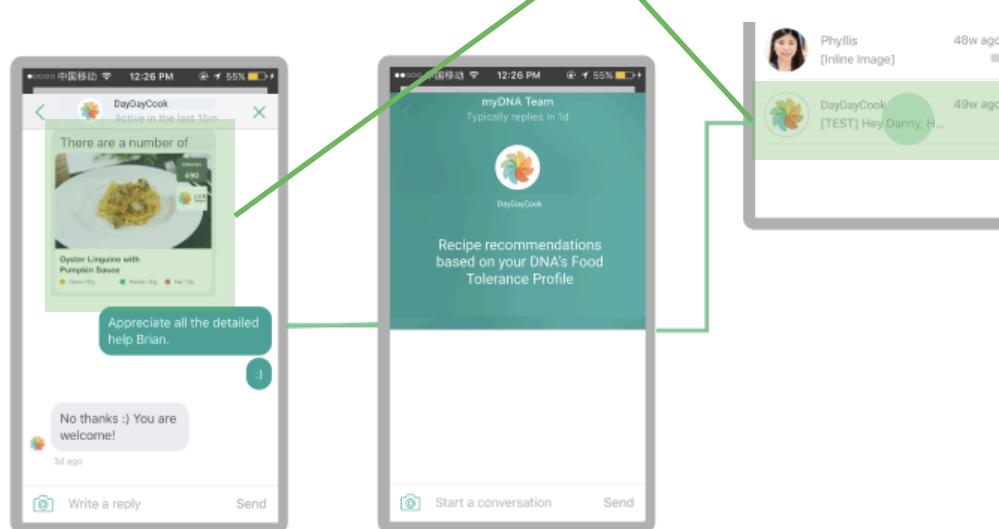
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Apart from the health coaches, Prenetics can insert 3rd-party service providers for meal recommendation,...or even research bots, outsourced trainers, etc.

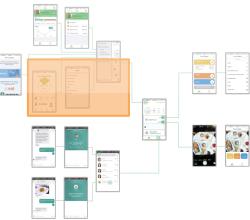


Secondary UX Ideas

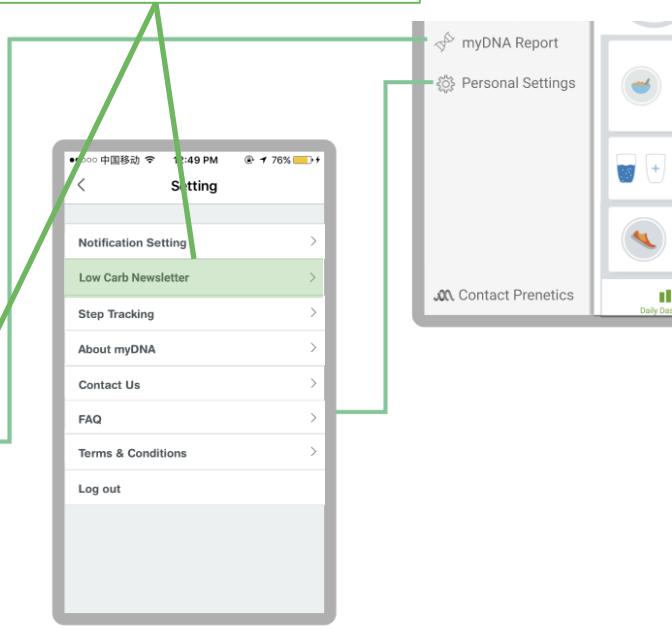
- Meal recommendations as a chatbot.
- Allow users to be more informed, by opting into research related to their diet type/profile
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- Pre-populating user profile info from the DNA test, so there's little onboarding.

4. Wireframes and UX mock-up for further testing

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Besides the info in the myDNA report, directing the user to further information about their DNA group is a great way to further engage and personalize the experience for them.

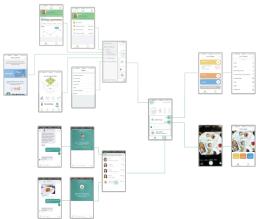


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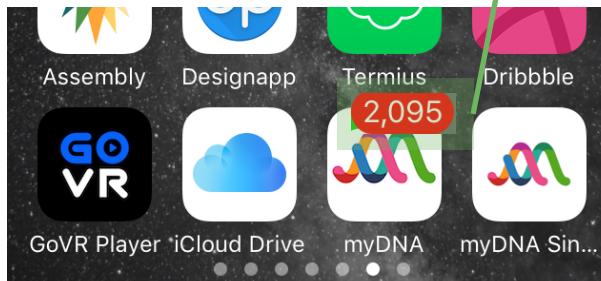
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One 'bridge' which is a low hanging fruit could be using App Badges to indicate the user's daily calories.



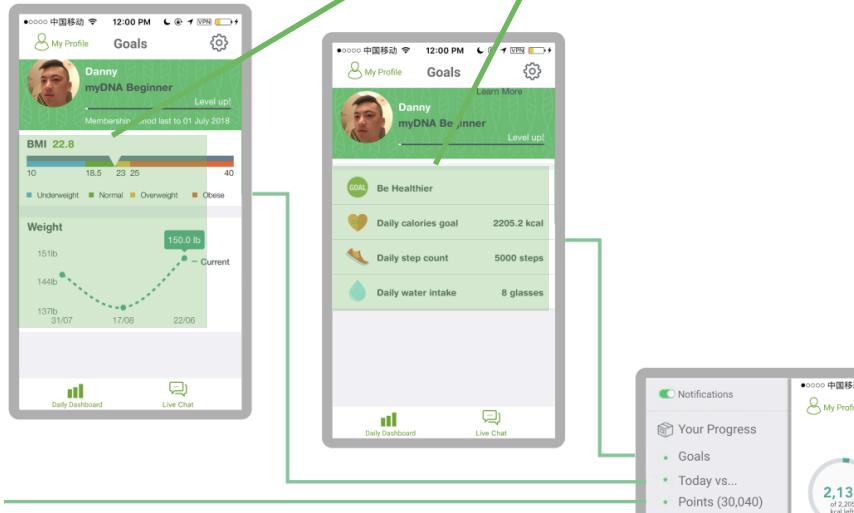
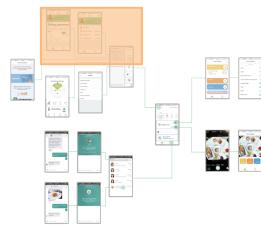
Creating reminders to log meals, based on the time of day and whether the user was active for min 10 minutes then just sat down.

Secondary UX Ideas

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Since the user has already submitted their personal info for the myDNA test, we can make the app onboarding easier by prepopulating their app. This is a cumbersome chore that other apps face.

Secondary UX Ideas

- Meal recommendations as a chatbot.
- Allow users to be more informed, by opting into research related to their diet type/profile
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- Pre-populating user profile info from the DNA test, so there's little onboarding.

5. Addressing Danny's Questions

How would you go about improving the personalization and relevance to the user?

From what I observed, there was already lots of personalized data for the user, but it was fragmented across many tabs (myDNA, home, profile, settings, etc).

That's why I decided that centralizing that information into its own side menu would give the user a stronger perception that the content of the app is very personalized and relevant to the user.

How would you measure success?

With the same quant/qualitative approach I've used in webapp optimization:

1. Identify the objective of the changes (in this case, personalization of myDNA and sustained motivation of logging food)
2. Making hypotheses (assumptions) in accordance to the above goals.
3. Setting up layers of tests and analytical tools to compare against the hypotheses, such as A/B testing, heat maps, scroll tracking, eye-tracking, bounce rates on certain features, time on app/pages, etc. Qualitative tests, such as testing mock-ups before development, and user interviews after a few months of launching the changes.
4. The experiment would be deemed successful if the objective metrics increased significantly, and if they didn't, then understanding why and using those lessons for future experiments.

What would you improve? How would you go about determining if those improvements worked?

Improvement is a continual process of product iterations. I'd go through the same process as I did above with my new suggestions and see what users say, how they feel, and what they actually do on the app in a certain time period.

Each aspect of an app is part of a funnel towards the end objective, whatever that may be (sales conversion, engagement, education, etc). In this scenario, if my suggested improvements pushed users to talk to more health consultants and log their food intake, then I would deem the improvements working to widen the funnel at those stages, but I'd make sure it was the improvements which were the cause.

Explain how your suggested improvements are better than the existing layout.

[explained in the above slides]

My Proposed Health/Wellness App

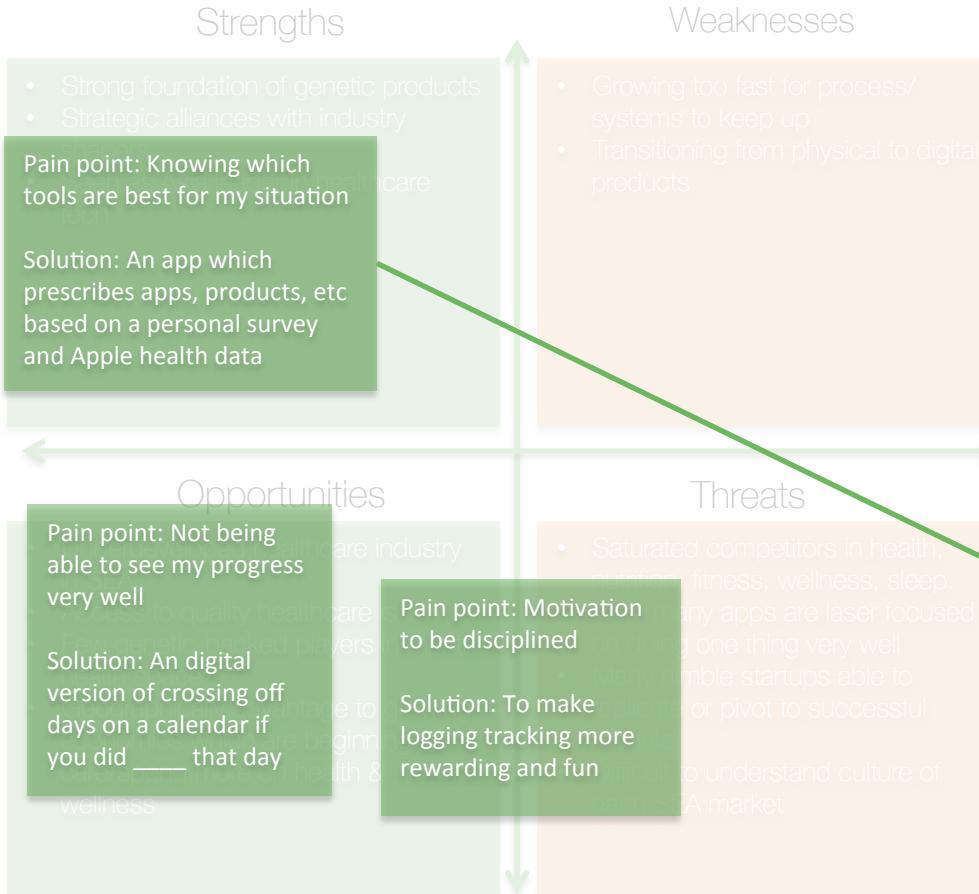
Creative Process For Creating a Health/Wellness App

1. SWOT Analysis of Prenetics & Quotes from Thought Leaders
2. Brainstorming App Ideas, based on Analysis
3. Introducing *Health Guru: Small Steps for a Better You*
4. Supporting Arguments for Health Guru
5. Addressing Danny's Questions

1. SWOT Analysis of Prenetics & Quotes from Thought Leaders



2. Brainstorming App Ideas, based on Analysis



App Ideas

Of course, the sky's the limit with ideas for health, but from what I learned in my past experience, execution, connections, and playing on what strengths you have are much better indicators for a strong business.

To the left, I listed App ideas pertaining to certain strengths and opportunities, but since I'm a believer in playing to your strengths, I decided to choose this one to expand on:

Pain point: Knowing which tools are best for my situation

Solution: An app which prescribes apps, products, etc based on a personal survey and Apple health data

3. Introducing *Health Guru: Small Steps for a Better You*

Health Guru: Small Steps for a Better You

By Hamilton Le & Prenetics

Open iTunes to buy and download apps.



[View in iTunes](#)

+ This app is designed for both iPhone and iPad

Offers iMessage App for iOS

Offers Apple Watch App for iPhone

Free

Category: **Health & Fitness**

Updated: Jul 26, 2017

Version: 7.20

Size: 155 MB

Apple Watch: Yes

Languages: English, Danish, Dutch, Filipino, French, German, Indonesian, Italian, Japanese, Korean, Malay, Norwegian Bokmål, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Traditional Chinese, Turkish

[View More by This Developer](#)

Link to full Image:

http://www.hamiltonle.com/prenetics/health_guru_lg.png

Description

Have you tried to lose weight? build muscle? or just simply live a healthier lifestyle? With over 270,000 health apps on the Appstore, it's hard to know which ones fit your lifestyle and fitness level.

That's where Health Guru comes in. Based on a one minute survey & your Apple Health data, we'll prescribe you relevant apps which can kickstart you onto the healthy life you've been wanting to live. All for free!

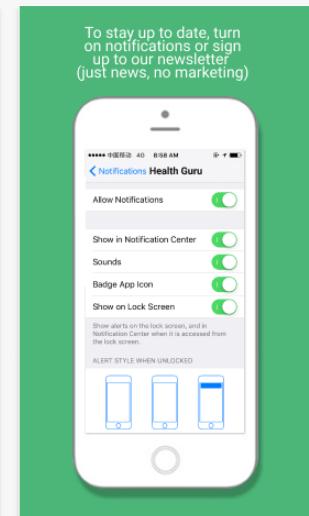
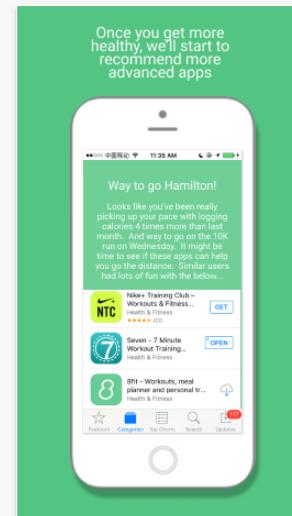
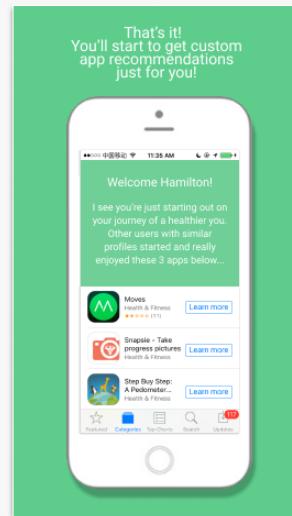
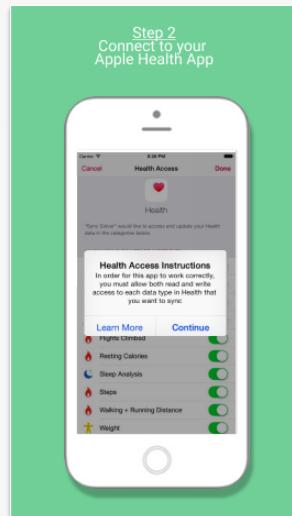
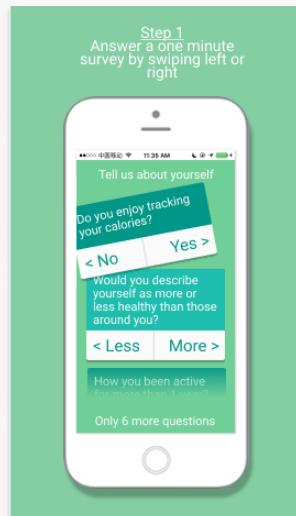
[...More](#)

[Prenetics.com Web Site > Health Guru: Small Steps for a Better You](#)

[Support > Application License Agreement](#)

Screenshots

[iPhone](#) | [iPad](#) | [iMessage](#) | [Apple Watch](#)



4. Supporting Arguments for Health Guru

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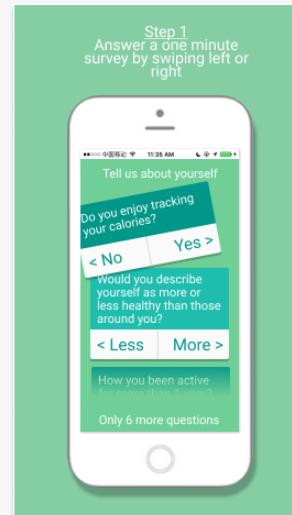
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[Prenetics.com Web Site](#) > [Health Guru: Small Steps for a Better You Support](#) > [Application License Agreement](#)

Screenshots



1) If you can't beat them, join them.

There are 270,000+ health apps, so it's hard to compete in the Appstore with a description and just a few slides.

If we take other lifestyle industries who've gone through this same stage of saturation, we can see a trend:

Industry	Different Content Channels	Aggregated but individually owned platforms	Centralized Online Ecosystem of Partners
Music	CD players, mp3, cassettes, etc	iTunes, Windows Media Player, Winamp, etc	Spotify
Film	DVDs, Laserdisks, etc	YouTube, iTunes, Vimeo, etc.	Netflix, Apple TV
Fitness	Fitbit, Jawbone, MiBand	Apple HealthApp, Google Fit, etc.	...someone who provides a one-stop shop of 'curated playlists' of workouts, meals, and sleep cycles, based on data of similar user behavior. It'd be an entire ecosystem for wellness.
Nutrition	Food scales, nutrition labels, govt recommendations	MyFitnessPal, LoseIt, Apple Health, Google Fit	

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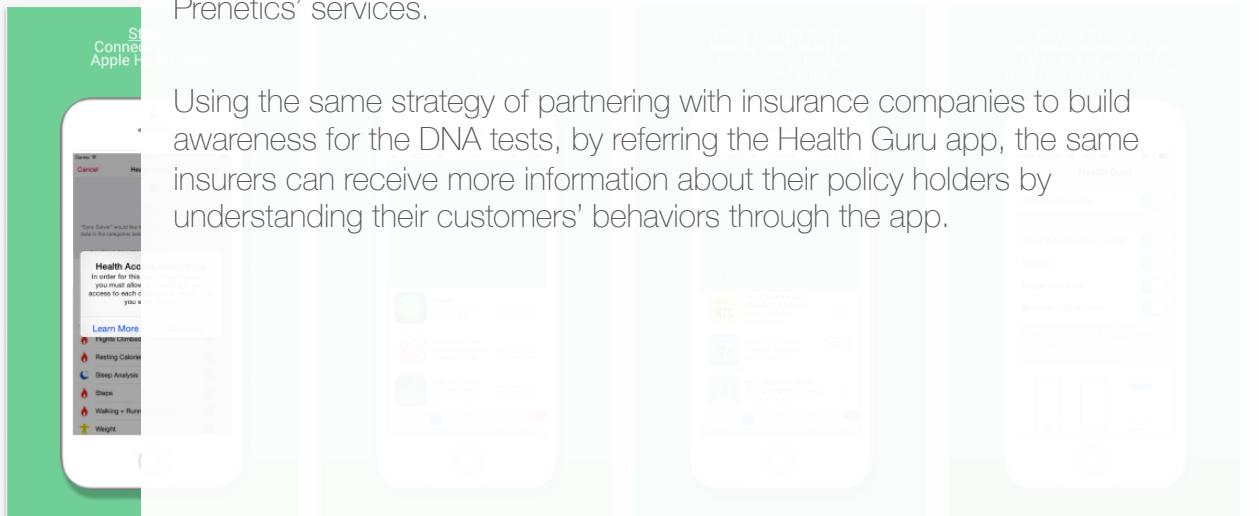
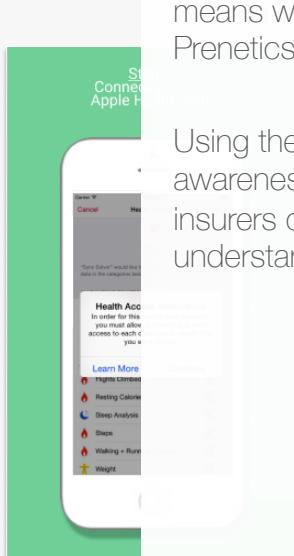
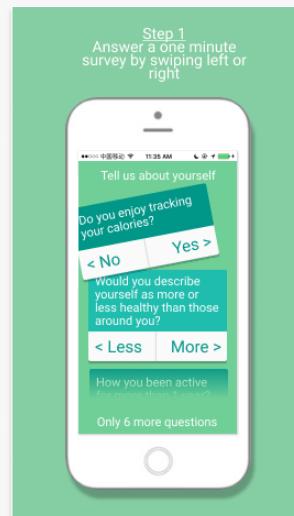
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Screenshots



2) Capitalize on Prenetics' brand as a thought leader

If Health Guru can be the underlying layer of all health apps, it can further secure Prenetic's role as a trusted source of information.

Furthermore, even though users will use Health Guru for recommendations, then be forwarded out of the app, the more traffic we drive through the app means we have a large pool of potential customers which we can later offer Prenetics' services.

Using the same strategy of partnering with insurance companies to build awareness for the DNA tests, by referring the Health Guru app, the same insurers can receive more information about their policy holders by understanding their customers' behaviors through the app.

4. Supporting Arguments for Health Guru

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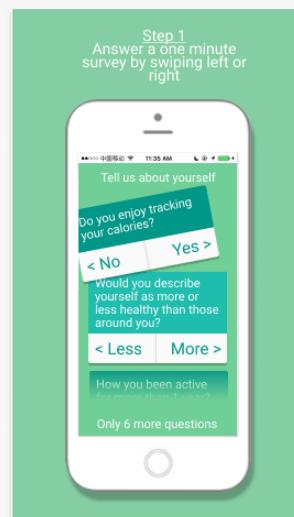
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Screenshots



3) Onboarding the next billion healthtech users

As mentioned, there's saturation on the various appstores, but there's still much to be done in health for those with little access to quality healthcare or advance technology.

To take reference of Nike's growth playbook, they had already been a market leader among sports fans, and so they wanted to look beyond that market and see if they could groom populations who knew little about sports. In China, they partnered with local NGOs to build sports fields and educational programs and as a result, got early brand positioning.

Similar concept applies here with Health Guru in regards to those who know little about health. If we can position the app as a gateway to health, Prenetics can help onboard more people into healthy living and build a larger overall market.



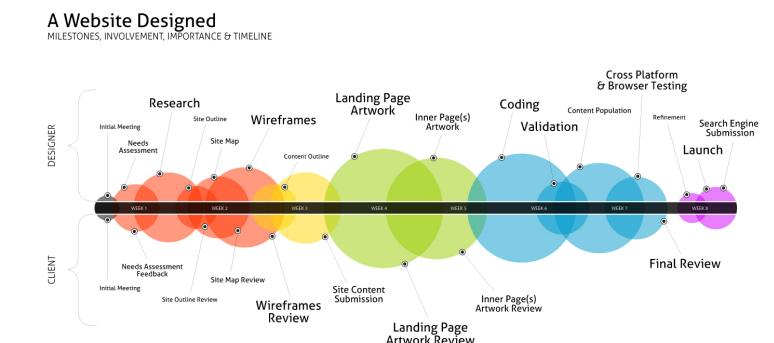
5. Addressing Danny's Questions

How would you go about building this out?
What would the lead time look like?

I'd build out the app with a very similar timeline of milestones & stages as I've used to build client websites. The only adjustment would be for iOS apps (appstore review, etc). I'd also add an extra month (3 months total) to buffer for my inexperience with iOS development.

I like the process below because it provides adequate expectation settings for both sides, as well as buffer time in between stages:

Full image here: http://www.hamiltonle.com/prenetics/web_dev_timeline.jpg



What resources would you need?

While I'm used to operating very lean (as well as not building anything before validating ideas with smoke screens/mockups/etc), I would say that to build the app at the same level of quality necessary to satisfy the end user, as well as keeping up with the standards of the healthcare industry and Prenetics, I would ideally like to work with:

(Assuming 3 month lead time for MVP)

Minimum:

- 1-2 iOS developers (4 days/week)
- Graphic Designer (1-3 days/week)

If more budget:

- 1-2 more iOS developers (4 days/week)
- UI/UX designer (1-3 days/week)
- QA Developer (1-3 days/week)
- Market Research/Customer Development (1-3 days/week)
- Junior Product Manager, for specific features (5 days/week)

Closing Remarks

Why I would like to be part of the Prenetics Team

My Personal Experience with the Mission

As you saw before, I've gone through my own lifestyle transformation, and a large part of that was through education and understanding how to fit technology into my current life. I can empathize that it's easy to be overwhelmed with all the health information these days, and so I'd like to continue to help others with that journey. And with Prenetics, that help would be in a much more scientifically-backed and data-driven way.

I've got a large toolbox of experience and skills to contribute to Prenetics' future milestones

From my personal site and resume, you can see that I have a history of taking on challenging roles in diverse environments. The learning I attained has been immense and I'd like to channel those lessons into an organization, product, and team I enjoy and believe in.

Ready to work hard

I understand that Prenetics is in a growth stage and therefore, people need to wear many hats, navigate ambiguity, and take on unassigned work from team members. That life isn't for everyone, but from my experience of working abroad, with startups, as well as my personal web consulting business, I can say that I thrive in that environment and enjoy pulling people on board if they're struggling.

Easy Personality to Work Alongside

If you talk to any of my former clients or friends, they'll tell you that I balance high standards of work with an easy-going and helpful demeanor. I'm very solution-oriented, so even in the most stressful of situations where some people may waste time getting angry or pointing fingers, I'll swallow any pride I have and move on to trying to find the best solution for the problem at hand.

Appendix

Research Methodology

Leading Questions	Where to Research	Links
Healthcare Industry		
What is the current state of healthcare globally? In Asia? In Southeast Asia?	- Analysis from the work of data scientists & data journalists	Link
Who are the leading healthcare providers? Why? What's their approach? Is it able to be replicated and scaled?	- Look at manifestos of the best hospitals and healthcare professionals	
How do healthcare companies balance the fine line of science-backed diagnosis V.S. pseudoscience?	- White papers/medical journals on health, preventative healthcare, etc	
How to balance western and eastern (Chinese medicine) approaches to medicine?		
What have been/still are the barriers to preventative healthcare?	- Reach out to personal network in the medical industry. Ask about the issues they deal with, as well as if they had a wishlist for the industry, what would be on it?	
Healthcare technology		
How do the tech giants do it?	- Keynotes from Apple Healthkit, Google Fit, etc.	
Who are the thought leaders in HealthTech?	- Upvoted long-form articles from trusted sources	
What are the most popular products right now?	- Most downloaded apps on appstores, healthcare services with most users, etc	
What are the most innovative/disruptive/crazy ideas in HealthTech?	- Startup lideas from Kickstarter, ProductHunt, Reddit.com, etc	
User Research		
What is the sentiment towards health in Asia (specifically Southeast Asia)?	- Websites of hospitals in SEA, personal stories, quality of insurance providers, ER wait times, death rates for medical procedures as compared to the rest of the world, etc	
What are the current behaviors surrounding health in SEA?		
What are the UI/UX differences between US & Southeast Asians in regards to products/services which are both physical and digital (not just health apps)?	- Articles on designing for SEA users - Look at UI/UX differences for global apps which have been localized (airbnb, uber, news sites, etc)	
What are the gifting traditions/behaviors in SEA?	- Similar to Red Pockets in China, does SEA have a strong gifting tradition?	
How to take the best aspects of healthcare in SEA, and translate that into a digital form?	- Analysis: make an appreciative inquiry of the SEA healthcare system	
How would I use my own experience with health and healthcare products?	- Revisit the apps, systems, and ongoing process of how I stay healthy	
From the above questions, what would the customer persona's look like?	- Creating customer persona's from the research above	

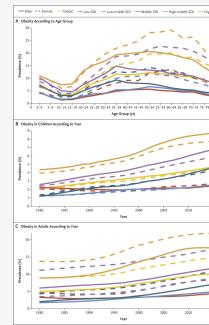
Healthcare Stats

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC414362/>
<https://www.futurereadysingapore.com/2015/the-health-of-southeast-asias-healthcare-systems.html>
<https://www.forbes.com/sites/niallmccarthy/2014/09/04/americans-visit-their-doctor-4-times-a-year-people-in-japan-visit-13-times-a-year-infographic/#f65dd988ee347>

Key Points & Learning's

1. In 2015, we estimated that 107.7 million children (uncertainty interval, 101.1 to 115.1) and 603.7 million adults (uncertainty interval, 592.9 to 615.6) were obese worldwide. The overall prevalence of obesity was 5.0% among children and 12.0% among adults
2. Japanese visit doctors 13 times/year, compared to US of 4.8 times
3. Thailand's healthcare spending is expected to rise some eight percent a year from 2014 to 2018 to meet demands
4. In Indonesia, there are only two doctors per 10,000 people

Detailed Notes



Americans Don't Like Visiting the Doctor

Annual average doctor visits per person in selected countries



The rise in healthcare consumption is putting some public healthcare systems in the region under strain. Most of Southeast Asia's fiscally-limited governments are fighting an uphill battle to meet their citizens' growing healthcare needs.

Thailand, which is struggling to cater to the hearty demand for healthcare following the introduction of a universal healthcare system in 2001. Its healthcare spending is expected to rise some eight percent a year from 2014 to 2018 to reach US\$18.7 billion. Still, as the Thai government is working on reducing its budget deficit, healthcare spending as a fraction of GDP is expected to stay flat, despite growth in population and healthcare demand.

Indonesia, the under-developed public healthcare system means there are only two doctors per 10,000 people. The country also suffers from severe infrastructural limitations – it has only six hospital beds per 10,000 people, compared to the global average of 30 beds per 10,000 people and the average in OECD countries of 50 beds per 10,000 people

Health workers density and distribution

URL: <http://apps.who.int/gho/data/node.sdg.3-c-viz?lang=en>, 2017
URL: http://gamapserver.who.int/maplibrary/Files/Maps/TotPercentGDP_2014.png, 2014

Key Points & Learning's

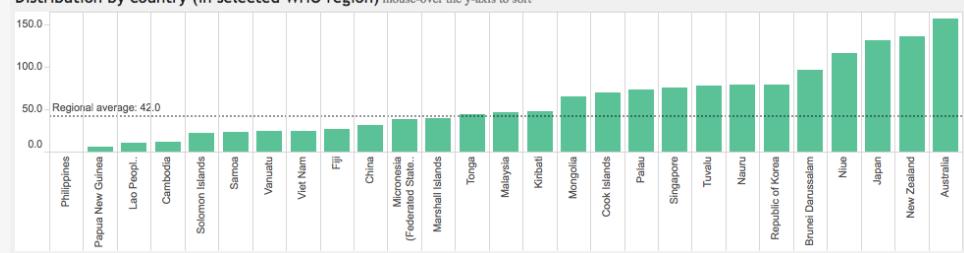
1. For every 10K people, there are an average of 25 healthcare professionals in South Asia and 42 for East Asia.
2. Global average is 45.6.
3. SEA uses 3-5% max from their GDP on health

Detailed Notes

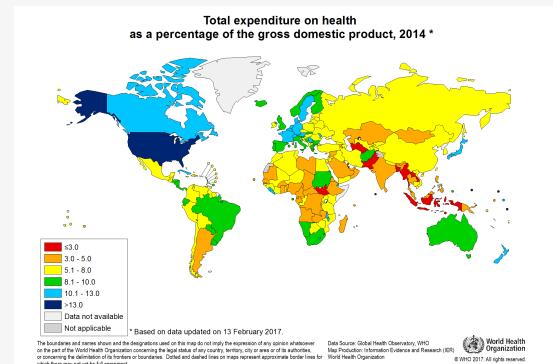
Distribution by country (in selected WHO region) mouse-over the y-axis to sort



Distribution by country (in selected WHO region) mouse-over the y-axis to sort



Total expenditure on health as a percentage of the gross domestic product, 2014 *



Research on what makes the top hospitals great

URL: various sources
Publication year: n/a

Key Points & Learning's

1. Best hospitals are a result of....

- Patient to staff ratio
- Ease of administration (check-ins, medical data, etc)
- Leading practices and research

From Duke:

- Five key steps outline the personalized health planning process:
 1. A member of the care team assesses the patient's level of engagement. The patient completes a self-assessment of health needs, preferences, and goals.
 2. The clinician assesses the patient's health status and health risks using the best available conventional, genomic, and other precision diagnostic tools. He/she identifies optimal risk-mitigation and therapeutic goals for the patient.
 3. The clinician and patient set shared goals, using the clinician's health assessment and the patient's self-assessment.
 4. The shared goals are incorporated into a personalized health plan. The clinician chooses appropriate metrics for monitoring progress, identified explicitly for the patient; an electronic medical record is used for data collection and tracking.
 5. The clinician coordinates care with the rest of the patient's care team and arranges for appropriate follow-up

Detailed Notes

What is your review of Mayo Clinic? (<https://www.quora.com/What-is-your-review-of-Mayo-Clinic>)

- "All data is easily accessed by the patients themselves including doctor's notes, lab test results, lab reports, medications, etc."
- "All agreements are printed in a 12 point font so the words can be most easily read and understood."
- "I haven't seen doctors acting this way since our family doctor made his last house call in 1962."
- "I'm really shocked. I want the entire medical world to learn the art of caring for patients from these truly great and powerful Midwest medical wizards of Ahhhhs."

What separates the Mayo Clinic from other hospitals and teaching centers? (

<https://www.quora.com/What-separates-the-Mayo-Clinic-from-other-hospitals-and-teaching-centers>)

- "famous for providing top level medical care, doing a lot of good clinically relevant research, having a fine medical school and being active in promoting medical knowledge all over the world e.g. by distributing the highly regarded peer reviewed monthly journal the Mayo Clinics Proceedings formerly for free to doctors all over the world"

What is the Cleveland Clinic known for? (<https://www.quora.com/What-is-the-Cleveland-Clinic-known-for>)

- Heart Surgery, Cancer Care, Various Transplants, Odd-Unusual-Difficult 1 of a kind Cases, Rheumatology, Neurology, Hypertension, and on and on / known the world over for World Class Care.

Why are Mass General, Johns Hopkins, UCSF, etc. considered the best hospitals? (

<https://www.quora.com/Why-are-Mass-General-Johns-Hopkins-UCSF-etc-considered-the-best-hospitals>)

- "Today Hopkins, like many of the other top hospitals is also known for ground breaking biomedical research, as well as training generations of leading physicians. "

<https://dukepersonalizedhealth.org/personalized-health-care/key-principles-personalized-health-care/>

Studies have shown that such transitions can jeopardize the quality of care delivered and, in some cases, can jeopardize patient safety as a result of lack of communication, inaccurate or incomplete transfer of relevant health information, and poor follow up plans for patients after leaving the hospital. Researchers have estimated that inadequate care coordination was responsible for \$25 to \$45 billion in wasteful spending in 2011 through avoidable complications and unnecessary hospital readmissions. Coordination of care is a key component of a prospective and preventative approach to health care that saves money, fosters optimal outcomes, and creates a better health care experience for the patient

How thinking harder will let you eat more bacon | Professor Sean Rife

URL: <https://medium.com/learnliberty/how-thinking-harder-will-let-you-eat-more-bacon-professor-sean-rife-9dd16846b070>

Publication year: 2017

Key Points & Learning's

1. Ensure that the science behind a product offering is well-researched and honest.

Detailed Notes

What the Health, a documentary by Kip Andersen of Cowspiracy fame:

- Among the film's central claims is that processed meat — and to a lesser extent, nonprocessed beef — can give you cancer, according to the World Health Organization.
- In fact, the WHO classifies processed meat in the same carcinogenic category (Group 1) as cigarettes, asbestos, and plutonium.

Precision vs Oomph

- When assessing the world, scientists (at least, in the life and social sciences) are primarily concerned with two things: the amount of confidence in a given finding, and the strength of that finding.
- Precision = reliable but not a powerful effect
- Oomph = reliable and powerful effect

Silicon Valley is confusing pseudo-science with innovation

URL <https://www.theverge.com/2015/12/29/10842070/2015-theranos-venture-capital-tech-bubble-disruption>

Publication year: 2015

Key Points & Learning's

1. The growth hacking approach of "ask for forgiveness, not permission" doesn't work as well in healthcare. Make sure due diligence is done properly, or else regulators can easily step in.
2. Difficult to leapfrog in healthcare. The more incremental the improvements, the less likely the firm can implode on itself.

Detailed Notes

- What many firms seem not to understand is that though there are massive revenue opportunities in health care, "disrupting" patients' lives can lead to death
- Take Pathway Genomics, for instance, which was selling a test that was supposed to tell you if you had cancer. I say "supposed to" because it turns out no one — including Pathway Genomics itself — had done any research whatsoever to determine the test actually did what it said it did
- Personal genetic testing at that time didn't explain the limitations of what was happening; 23andMe did get FDA approval this year, and their new site really nicely explains some of the uncertainty in genetic testing and the limitations of their tests.
- the companies that do succeed act as stem cells for our entire economy, creating entirely new industries as they disrupt the old.
- here are the real opportunities: closing the gap between black and white patients, lowering the infant mortality rate, and making sure the very poorest among us have access to adequate care

Examples mentioned:

1. Theranos:
 - a company which claimed to have invented a revolutionary new technology that could identify diseases with just a pinprick of blood.
 - On the surface everything about Theranos looked good, right? It wasn't until after The Wall Street Journal dug in that all the irregularities in partnerships, relationships with regulators, and general fuckery began to surface.
2. Calico (From Google's Founders)
3. Cool Planet (<https://www.theverge.com/2014/4/14/5561250/cool-planet>)

Notable healthcare companies contributing real value

1. <https://flatiron.com/>
2. <https://impacthealth.io/>

Fake Medical Journals Are Spreading, And They Are Filled With Bad Science

URL <https://www.forbes.com/sites/stevensalzberg/2017/01/03/fake-medical-journals-are-spreading-and-they-are-filled-with-bad-science/2/#e3c139351c3e>

Publication year: 2015

Key Points & Learning's

1. Even medical institutions which are known for being credible can be guilty of disseminating pseudoscience claims.

Detailed Notes

Author

Steven Salzberg is the Bloomberg Distinguished Professor of Biomedical Engineering, Computer Science, and Biostatistics at Johns Hopkins University.

As an example, Journals about acupuncture:

- The Journal of Acupuncture and Meridian Studies, published by Elsevier
- Acupuncture in Medicine, published by BMJ
- Chinese Medicine, published by BioMed Central (owned by Springer)

Prof. Edzard Ernst has pointed out that these journals, and others like them, are a farce:

- Potential authors...are invited to suggest their preferred reviewers who subsequently are almost invariably appointed to do the job.... As a result, most (I estimate around 80%) of the articles that currently get published on alternative medicine are useless rubbish.

Their very existence can confuse medical students, who assume (as they've told me themselves) that if legitimate-looking journals are publishing this stuff, there must be something to it.

acupuncture continues to spread, in part because of very badly done studies that often misrepresent their findings

Research further:

- [http://www.csicop.org/si/show/
science_and_pseudoscience_in_adult_nutrition_research_and_practice](http://www.csicop.org/si/show/science_and_pseudoscience_in_adult_nutrition_research_and_practice)
- <https://www.hindawi.com/journals/ecam/2013/153148/>

Asking personal connections in the medical, health, and wellness space

Key Points & Learning's

1. Those in the medical space generally wish for everyday people would put more effort into educating themselves, as well as having motivation outside of it being trendy or just looking good.

Detailed Notes

"If you wish all humans could have the awareness of something within health, what would it be?"

Medical IT Consultant Implementing EPIC Systems, Age 34, Location: USA

I'd probably say I wish humans could be aware of diet more and not have corporations/government policy dictate what they eat. Diet is the most integral part in health that a person can control and change. An example of corporation/govt possibly dictating diet in a negative sense has to do with sugar. Sugar gets special treatment within US nutrition facts (does not have to disclose a daily value %) and also science reports around it is skewed. If science could be used to actually say what foods/nutrients are good and what are not as good, a person could adjust accordingly and be healthier for it.

Physician's Assistant who Studied Preventive Care, Age 30, Location: USA

I just wish people knew how to dig a bit deeper into all the health trends they see. A lot of it is damaging to one's health, but it's hard to convince them otherwise once they believe in it.

Personal Trainer, Age 28, Location: Shanghai

Once they see result it's easier to stick to it. Another is if they have motivations more than just looking good for themselves it seemed better too. Haven't seen any tech product that can help with the motivation. Some ppl mentioned if they could have notification/alert from the phone it might work. Understand diet more... and just build up the habit, it's difficult to stick to it for a short term goal

Apple HealthKit vs Google Fit

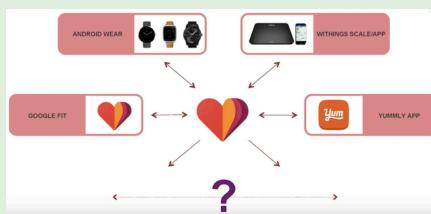
<https://www.youtube.com/watch?v=BvOry-JRnAU> / <https://www.youtube.com/watch?v=JNIVADU17xg> / <https://www.youtube.com/watch?v=cOkwrsVkoQa> Publication year: 2016

Key Points & Learning's

1. Smartwatch sales grew from ~\$5mil in 2014 to ~\$45mil in 2016
2. Health/fitness tracker sales grew from ~\$12mil in 2014 to ~\$35mil in 2016
3. Apple's healthcare ecosystem:



4. Google's healthcare ecosystem:



5. "The platform pivot from data capture to medical research, and soon, to personal care will be truly transformational. It will lead to better data, faster results, with less development."

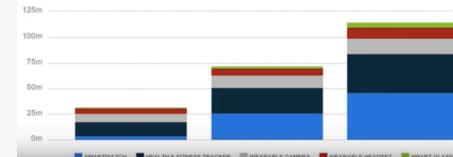
Detailed Notes

Role which apple & google is trying to play is aggregating all the data from trackers

Apple and Google's ecosystem:

- Apple Health
 - Centralized hub for all health data
 - Users add, edit delete, and share data between apps
 - Track calories, sleep, heart rate
 - "visual layer" to the health data on your phone
- Apple HealthKit
 - SDK, so not an app
- Apple ResearchKit (Allowing research studies to access a wider audience)
 - SDK for population research apps
 - Approval process:
 - Must obtain user consent
 - ethics review boards
 - 3 Modules
 - 1. Consent
 - 2. Surveys
 - 3. Active Tasks
- 2 Data Modules
 - 1. Care plan store
 - 2. Document exporter
- Google Fit
 - Centralized hub for all health data
 - Android version of Apple health
- Google Fit SDK

Forecast Unit Sales of Wearables Worldwide by Category from **2014 to 2016**



Case Study: The Health eHeart Study, is using Apple's ecosystem to pull data and use it for their study

Why Behavior Change Apps Don't Work

URL: <https://medium.com/behavior-design/why-behavior-change-apps-don-t-work-1de72fc2d74>
Publication year: 2013

Key Points & Learning's

1. Whether the behavior is a “wanna” versus a “hafta.” is “the difference between work and play … slavery and freedom … efficiency and pleasure.”
2. Maintaining a sense of autonomy is critical to enjoying an experience
3. too many well-intentioned products fail because they feel like “haftas”
4. When faced with “haftas,” our brains register them as punishments so we take shortcuts, cheat, skip-out, or in the case of many apps or websites, uninstall them or click away in order to escape the discomfort of feeling controlled.
5. “reactance,” the hair-trigger response which threatens your autonomy.
6. To change behavior, products must ensure the user feels in control. People must want to use the service, not feel they have to.

Detailed Notes

In a French study, if the researchers added the phrase: “but you are free to accept or refuse,” participants would double how much they normally give to strangers, charities, etc. The hypothesis is that people are more likely to be persuaded when our ability to choose is reaffirmed. The effect was observed not only during face-to-face interactions, but also over email

Dr. Jesse Schell, of Carnegie Mellon’s Entertainment Technology Center, studies the psychology behind why people play. Schell has poured over decades of research to try to explain why people spend countless hours entranced playing Angry Birds or World of Warcraft while at the same time dreading doing other things, like their day jobs or filing taxes.

Schell said the difference comes down to whether the behavior is a “wanna” versus a “hafta.” The difference between things we want to do and things you have to do is, according to Schell, is “the difference between work and play … slavery and freedom … efficiency and pleasure.”

Schell believes maintaining a sense of autonomy is critical to enjoying an experience.

Schell points to the work of **Edward Deci and Richard Ryan**, whose Self-Determination Theory identifies a belief in one’s own freedom to choose as a key requirement for sustained motivation.

I wanted to lose weight, and the app was telling me how to do it with its strict method of tracking calories in and calories out. Unfortunately, I soon found that forgetting to enter a meal made it impossible to get back on the program – the rest of my day was a nutritional wash.

too many companies build their products betting users will do what they should or have to do, instead of what they want to do. They fail to change behaviors because they neglect to make their services enjoyable for its own sake, often asking users to learn new, unfamiliar actions instead of making old routines easier.

the most successful consumer technology companies of our age, those which have altered the daily behaviors of hundreds of millions of people, are the ones nobody makes us use

too many companies build their products betting users will do what they should or have to do, instead of what they want to do.

by making an existing behavior easier to do, a product can imply a choice more likely to be accepted.

What are the most popular products right now?

The best fitness tracker apps

URL: <https://www.youtube.com/watch?v=1DbMlaR1ml>
Publication year: 2015

Key Points & Learning's

1. Many apps start you at 10k steps and you adjust later, but Up by Jawbone will let you know the average steps for a person with similar height, weight, age, etc. Feels more personalized and sets you up for your first wins.
2. Makes food logging easier with barcode scanner and computer vision

Detailed Notes

Video comparing

1. Up by Jawbone
2. Google Fit
3. Fitbit

What are the most popular products right now?

MyFitnessPal: 2014 vs 2017

URL: <https://medium.com/@seanmelchionda/myfitnesspal-a-usability-test-of-the-iphone-app-e394a789ad6e>
<https://medium.com/tradecraft-traction/myfitnesspal-a-ux-case-study-f377ff66a504>

Publication year: 2014

Key Points & Learning's 2014 UI Suggestions:

- To motivate the user, put their progress right on the home screen.
- Simplify the MyFitnessPal home screen to address the three primary needs of the mobile user:
 - 1.) Logging a meal or activity
 - 2.) Checking on progress
 - 3.) Delivering personalized and motivating information.

2017 UI Suggestions:

- Pain point 1: Individuals are confused and not confident about how to search for and add a new food item.
- Solution: match users' mental models (who associate nutritional goals with "Progress")
- Pain point 2: Individuals have trouble understanding their food progress.
- Solution: reduce cognitive load (reconsider hierarchy on the "Add Food" screen)

Detailed Notes

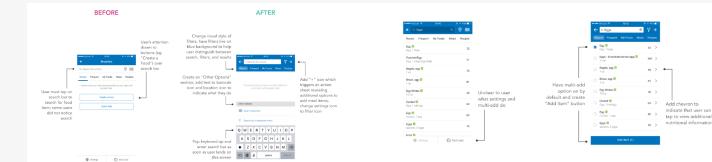
2014:

- Many different buttons serving the same function
- No validation after updating data
- Making most used function more prevalent in the UI (the add to diary button)
- Food search was cumbersome
- Redundant navigation
- Users want guidance and relevant insights
- Home page isn't relevant



2017:

- When a customer opens the MyFitnessPal application for the first time, they have a heightened level of motivation to improve their health, but may not have experience with health tracking. I focused on this critical, new user segment.
- If (MyFitnessPal) didn't get you to log food on the first day, the chances you'd log a food on the second day were very low. Therefore, MyFitnessPal should focus on minimizing friction and increasing the customer's ability to complete certain tasks.
- "Ugh! Why do I keep tapping "Create a Food" instead of using the search to find a food item?"



To research further:

<https://soundcloud.com/dj-streethawk/myfitnesspal-how-an-app-got-165million-users>

The Best Fitness Apps For 2017

URL: <https://www.youtube.com/watch?v=fRsgmik-1Tg>
Publication year: 2017

Key Points & Learning's

1. MyFitnessPal is still widely used for calorie counting. Why?
2. Ingress game uses the game as a vehicle to being more active. Sometimes the purpose of the app doesn't have to be so obvious.

Detailed Notes

Sworkit

- Easy and quick playlist of workouts

Fitstar Yoga

- Provides customized skill program for the user
- On-the-go sessions, no matter how much time you have

MyFitnessPal

- Still very popular, due to simple calorie counting and barcode scanner

Lifesum

- prompts you set 3 goals, then will create plans to reach those goals
- Barcode scanner

Stop, Breathe, & Think

- Guided meditations based on the mood you tell it you're currently in

S Health

- Default app on Samsun 7 Edge

Polar Flow

- Paired to the Polar watch
- Most important: most complete workout assessment, based on the intensity

Ingress

- Similar gameplay to pokemon go
- Becoming more active without that being the main goal

What are the most popular products right now?

Search 'Nutrition' on Product Hunt

URL: <https://www.producthunt.com/search/posts?q=nutrition>
Publication year: 2017

Key Points & Learning's

1. Apps focused on education or research (aggregators, AI chatbots)
2. 1:1 affordable diet coaching / customized diet plans / free coaching
3. Quick wins (2 Soylent)
4. Nutrition apps based on geography (FitnSpicy Living)
5. Meal subscription services

Detailed Notes

The screenshot shows the Product Hunt website interface. At the top, there is a navigation bar with tabs: Top, Products (which is selected), Collections, Topics, and People. A search bar contains the query 'nutrition'. Below the navigation, there are three sections of filters: 'FILTER BY TOPIC' (Tech, Health and Fitness, iPhone, Website, Books, Android), 'DATE POSTED' (Anytime, Last 30 days, Last 90 days, Last 12 months), and 'PRODUCT TYPES' (Show dead products, Show all products). The main content area displays a list of products with their names, descriptions, categories, and upvote counts. Each product entry includes a small thumbnail image.

Product	Description	Type	Upvotes	Comments
Food Love Family: A Practical Guide to Child Nutrition	Best book about child nutrition and food preparing	BOOKS	15	1
Examine	Independent research summary on supplements & nutrition	WEBSITE + 3	295	30
Treat	Improve your diet and fight back against disease	IPHONE + 3	262	15
Akku	App based aggregator of nutrition programs	IPHONE + 2	152	35
Lark	Automated chat-based health app	ANDROID + 4	118	7
Almond	Connect with top dietitians via personal video consultation	TECH	98	7
Maven for Desktop	A digital clinic for women	HEALTH AND FITNESS + 2	94	3
Maven App	A digital clinic for women	IPHONE + 3	93	2
Spelt	Intuitive nutrition information			

What are the most popular products right now?

Most upvoted health apps on ProductHunt

URL: <https://www.producthunt.com/topics/health-and-fitness?order=most-upvoted>
Publication year: 2017

Key Points & Learning's

1. Most popular of all times:
 1. F.lux for long hours on a screen to reduce eyestrain
2. Most common apps:
 1. Convenience apps (order a garden, cool meals all at once)
 2. Gamifying everyday life as a vehicle for fitness
 3. Education of nutrition / health

Detailed Notes

The screenshot shows a list of 20 health-related products from ProductHunt, ordered by popularity. Each item includes a thumbnail, name, description, platform, and upvote count.

Rank	Product	Description	Platform	Upvotes	Comments
1	f.lux	Adjusts your computer's display to adapt to the time of day	LINUX	44	44
2	Brain.fm	Music for the brain to improve focus, meditation & sleep	WEBSITE	105	105
3	Gyroscope	A personal website powered by your life	ANALYTICS	80	80
4	Steps	Beat social anxiety with small challenges	IPHONE	108	108
5	Instant 3.0	Google Analytics for your life.	ANDROID	129	129
6	The Wall Farm by Click & Grow	The easiest way to grow fresh food indoors sustainably	HOME	79	79
7	7 Minute Workout	Scientific 7-minute workout app from the New York Times	WEBSITE	22	22
8	Capsule.ai	Remember everywhere you've been	IPHONE	134	134
9	Muscle Wiki	Understand your body, simplify your workouts	WEBSITE	36	36
10	Instant 4.0	Google Analytics for your life, now with a chatbot coach	ANDROID	78	78
11	Pebble 2, Time 2 + All-New Pebble Core	Two new heart-rate enabled smartwatches + 3G wearable	WEARABLES	48	48
12	Fit Men Cook	Cook once, eat healthy all week.	TECH	53	53
13	Juno Intelligent Oven	The powerful and easy-to-use computer-based oven	HOME	41	41
14	Fabric	The story of your life that writes itself.	IPHONE	66	66
15	Amazon Restaurants	Free one-hour local food delivery for Prime customers	DELIVERY & SHIPPING	34	34
16	Zero	A simple app to track your fasting	IPHONE	58	58
17	Remedy	Elite doctors at your fingertips. Made affordable by AI.	VIRTUAL ASSISTANTS	121	121
18	Productive for iOS	Build good habits. Organize your life.	IPAD	40	40
19	Luka 2.0	Messaging app with AI-powered bots	MESSAGING	65	65
20	Sure	Bot that curates the most Instagrammed food & drink spots	MESSAGING	135	135
21	Click and Grow	A smart planter for growing herbs and spices	HOME	31	31
22	Progress	See your body change over time	IPHONE	43	43
23	Noisli 2.0	Improve focus and boost your productivity with ambient noise	IPAD	33	33

What are the most popular products right now?

Searching 'Nutrition' on Product Hunt

URL: <https://www.producthunt.com/search/posts?q=nutrition>
Publication year: 2017

Key Points & Learning's

1. Apps focused on education or research (aggregators, AI chatbots,
2. 1:1 affordable diet coaching / customized diet plans / free coaching
3. Quick wins (2 Soylent)
4. Nutrition apps based on geography (FitnSpicy Living)
5. Meal subscription services

Detailed Notes

Product Hunt
The best new products, every day

Top Products Collections Topics People

FILTER BY TOPIC

- Tech 78
- Health and Fitness 37
- iPhone 30
- Website 14
- Books 13
- Android 12

DATE POSTED

- Anytime
- Last 30 days
- Last 90 days
- Last 12 months

PRODUCT TYPES

- Show dead products
- Show all products

Powered by Algolia

Food Love Family: A Practical Guide to Child Nutrition
Best book about child nutrition and food preparing
BOOKS ▲ 15 1

Examine
Independent research summary on supplements & nutrition
WEBSITE + 3 ▲ 295 30

Treat
Improve your diet and fight back against disease
IPHONE + 3 ▲ 262 15

Akku
App based aggregator of nutrition programs
IPHONE + 2 ▲ 152 35

Lark
Automated chat-based health app
ANDROID + 4 ▲ 118 7

Almond
Connect with top dietitians via personal video consultation
TECH ▲ 98 7

Maven for Desktop
A digital clinic for women
HEALTH AND FITNESS + 2 ▲ 94 3

Maven App
A digital clinic for women
IPHONE + 3 ▲ 93 2

Spelt
Intuitive nutrition information

What are the most popular products right now?

Most Backed Health-related Kickstarter campaigns

URL: https://www.kickstarter.com/discover/advanced?term=nutrition&sort=most_backed&seed=2501815&page=1
Publication year: 2017

Key Points & Learning's

1. Top 2 products are smart scales
2. Many products are food which tastes good and healthy for you
3. Lots of educational resources, in the form of books, magazines, and apps.

Detailed Notes

KICKSTARTER

Show me nutrition projects in All categories on Earth sorted by most backed

Advanced

Explore 318 projects

 Hardware SITU Smart Food Nutrition Scale: SITU weighs your food in calories and nutrients in addition to grams and... by Michael Grotthus Limited (deleted) and 631 backers	 Hardware Smart Food Scale: Less about WEIGHT, more about YOU! Easy to use bluetooth food scale with companion... by Chef Steve and 492 backers	 Periodicals WOD Talk Magazine - The CrossFit Lifestyle Magazine: WOD Talk is a lifestyle magazine designed for the... by Chris Elmore and 426 backers
 Cookbooks WHOLESCOME CHILD Healthy Family Eating Made Simple: A Recipe Book, Menu Planner & Nutrition Handbook ... by Mandy Sacher and 407 backers	 Food Cricket: Delicious, Healthy Snacks with Cricket Flour! Our mission is to normalize the consumption of insects... by Crickets and 408 backers	 Vegan Mission Bars: natural ingredients & free community fitness: Mission Bar is an all natural, performance based nutrition... by Daniel Metcalf and Kathleen Hodge and 393 backers
 Technology Shae - The World's Most Advanced Virtual Health Assistant: The world needs a better way to be healthy.... by Personal Health 360 and 356 backers	 Documentary Blood, Berries or Butter: A film about your health! The way we think about our bodies is changing, B3 features t... by HB3 Ocean and 345 backers	 Publishing CUSP Three Six Five: The first holistic and transformative health and wellness brand to promote rule-free lifelong... by Jaclyn DiGregorio and 331 backers

What are the most popular products right now?

Recommended Apps on the Apple store

URL: n/a

Key Points & Learning's

1. Apple's four categories are Classes & Trainers (workouts), Stay on Track (tracking & analytics), Food & Nutrition (calorie counter), and Sleep (sleep improvement)
2. Many apps I used in 2012 are still the most popular on the app store
3. Not much has changed in terms of the types of apps on the market

Detailed Notes

The image displays four screenshots from the Apple App Store, each showing a different category of health and fitness apps:

- Health & Fitness Classes & Trainers:** This category includes apps like Nike+ Training Club, Seven - 7 Minute Workout Training, 8fit, Runtastic Six Pack Abs Workout, Runtastic Results, and Jillian Michaels.
- Health & Fitness Stay on Track:** This category includes apps like Moves, Snapsie, Step Buy Step, TodaySteps, and Lark.
- Health & Fitness Sleep Better:** This category includes apps like Sleep Cycle alarm clock, AutoSleep, Sleep Better, Sleepio, Pillow: Sleep tracking & analysis alarm clock, and Recharge - Move.
- Health & Fitness Food & Nutrition:** This category includes apps like Calorie Counter & Diet Tracker by FatSecret, Calorie Mama AI, Calorie Counter by FatSecret, Lifesum, Runtasty - Healthy Recipes, and YAZIO - Calorie.

Each screenshot shows the app icons, names, ratings, and purchase options (GET, OPEN, UPDATE). The interface includes navigation tabs at the bottom: Featured, Categories, Top Charts, Search, and Updates. The date and time (8:41 PM) and signal strength are also visible at the top of each screen.

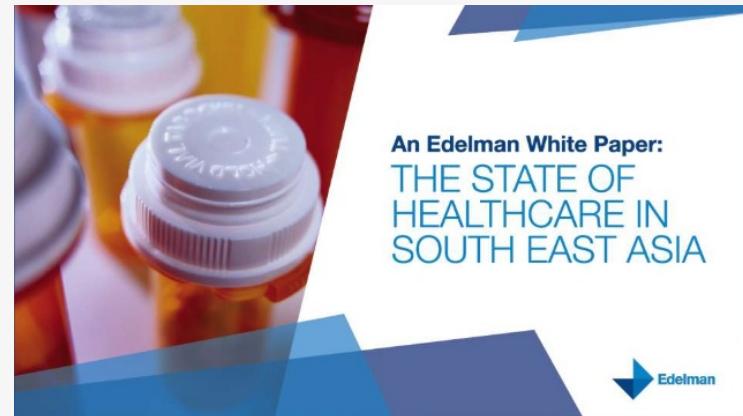
The State of Healthcare in SEA

[URL:
https://www.slideshare.net/EdelmanInsights/the-state-of-healthcare-in-south-east-asia?ref=https://aseanup.com/overview-of-healthcare-in-southeast-asia/](https://www.slideshare.net/EdelmanInsights/the-state-of-healthcare-in-south-east-asia?ref=https://aseanup.com/overview-of-healthcare-in-southeast-asia/)
Publication year: 2014

Key Points & Learning's

1. 3.7 billion in Asia, 27% internet penetration and 82% mobile penetration
2. 605mil people in ASEAN, average age is < 27
3. Asean Healthcare industry was \$68 billion in 2014
4. 191mil people in AP live with diabetes
5. Mental Healthcare is largely stigmatized, especially with dementia in SEA
6. Asia's on track to becoming the 'oldest' region in the world. Almost 1 billion elderly by 2050
7. Education, specifically of HIV/AIDS needed in Indonesia
8. Half of Indonesia lack state health coverage
9. 4/5 healthcare professions in Indonesia regularly search on the internet for more work-related info

Detailed Notes



<https://www.slideshare.net/EdelmanInsights/the-state-of-healthcare-in-south-east-asia?ref=https://aseanup.com/overview-of-healthcare-in-southeast-asia/>

The State of UX in South East Asia

URL: <https://blog.optimalworkshop.com/the-state-of-ux-in-south-east-asia>

Publication year: 2013

Key Points & Learning's

1. UX and design aren't appreciated to the extent they are in "the west".
2. UX is largely pioneered by western design
3. Don't make assumptions about what will work in a given market, don't assume that all people living in one country will have the same preferences.
4. content needs to be lighter and less text dependent. People tend to be much more visual and are led by multimedia; gloss and shine prevail.
5. In Cambodia, people respond well to direct marketing which other markets would refer to as "spam". They feel important when companies make an effort to contact them and address them personally.

Detailed Notes

In Singapore, Hong Kong and some parts of Thailand the technology community is being led by expats and they often bring an awareness of UX with them.

Just like any other market, certain universal rules still apply: don't make assumptions about what will work in a given market, don't assume that all people living in one country will have the same preferences. There are many cultural, religious and ethnic differences. So you need to research and test different types of design on various cultural groups to understand what is most effective. People still want things to be easy. We're all fundamentally wired to find the path of least resistance, it's just our ideas about value that may be different to the culture's perception of value

SEA is a very different paradigm than western countries: culturally very different, lower incomes, less fixed screens and more mobile devices. The content needs to be lighter and less text dependent. People tend to be much more visual and are led by multimedia; gloss and shine prevail.

What opportunities do you see emerging?

Three distinct opportunities come to mind:

1. Content developed for rich countries can be used in poor countries
2. Health information services will be delivered through mobile devices
3. Education attained through mobile devices

Not all languages are supported on mobile phones, for example in Thailand they don't always text in the Thai language. Some of the heavily scripted languages are very difficult to read on small screens like Nokia feature phones,

What are the gifting traditions/behaviors in SEA?

Gifts in Several SEA Countries

URL: Various sources

Key Points & Learning's

1. Gifting traditions and designs very different regionally.
2. Value's not always placed on the contents, but in the tradition itself

Detailed Notes

Gifts in Vietnam



Gifts in Indonesia



Gifts in China



Gifts in Thailand



(...With more time, I would have wanted to further research...)

Key Points & Learning's

- How to take the best aspects of healthcare in SEA, and translate that into a digital form?
- Analysis: make an appreciative inquiry of the SEA healthcare system
- Creating actual customer personas based on several real-world profiles

Detailed Notes

Leading Questions	Where to Research	Links
Healthcare Industry What is the current state of healthcare globally? In Asia? In Southeast Asia? Who are the leading healthcare providers? Why? What's their approach? Is it able to be replicated and scaled? How do healthcare companies balance the fine line of science-backed diagnosis V.S. pseudoscience? How to balance western and eastern (Chinese medicine) approaches to medicine? What have been/still are the barriers to preventative healthcare?	<ul style="list-style-type: none">- Analysis from the work of data scientists & data journalists- Look at manifestos of the best hospitals and healthcare professionals- White papers/medical journals on health, preventative healthcare, etc.- Reach out to personal network in the medical industry. Ask about the issues they deal with, as well as if they had a job for the industry, what would be on it?	Link
Healthcare technology How do the tech giants do it? Who are the thought leaders in HealthTech? What are the most popular products right now? What are the most innovative/disruptive/crazy ideas in HealthTech?	<ul style="list-style-type: none">- Keynotes from Apple Healthkit, Google Fit, etc.- Unquoted long-form articles from trusted sources- Most downloaded apps on appstores, healthcare services with most users, etc.- Startup Ideas from Kickstarter, Product Hunt, Reddit.com, etc.	
User Research What is the sentiment towards health in Asia (specifically Southeast Asia)? What are the current behaviors surrounding health in SEA? What are the UI/UX differences between US & Southeast Asians in regards to products/services which are both physical and digital (not just health apps)? What are the gifting traditions/behaviors in SEA?	<ul style="list-style-type: none">- Websites of hospitals in SEA, personal stories, quality of insurance providers, ER wait times, death rates for medical procedures as compared to the rest of the world, etc.- Articles on designing for SEA users- Look at UI/UX differences for global apps which have been localized (airbnb, uber, news sites, etc.)- Similar to Red Pockets in China, does SEA have a strong gifting tradition?	Link
How to take the best aspects of healthcare in SEA, and translate that into a digital form? How would I use my own experience with health and healthcare products? From the above questions, what would the customer persona's look like?	<ul style="list-style-type: none">- Analysis: make an appreciative inquiry of the SEA healthcare system- Revisit the apps, systems, and ongoing process of how I stay healthy- Creating customer persona's from the research above	

Thank you

Hamilton Le