

## Collaborative Reading notes

### 1 Introduction

This, for now, are my personal reading notes. I just finished the Innovators by Walter Isaacson, which has elicited a lot of excitement on my part. A few of the reasons for this are the following: it is a tale of wonderful systems built in a relatively short time. It is also a reminder that people are capable of great ideas and of building great things when they are in the right environment, and when they work with the right people for them. It's also a testimony to the power of government, industry, academia and **everyone else** both working together, and competing.

This reading, and the fact that I have a bunch of new books on my reading list thanks to Alice, has spurred me into starting this reading notes series. The idea is to keep short, bullet-point teachings from books I read, and posting them on Github. I hope this will allow for comments, add ons, and discussion of these points by other people. In typical blog fashion, I'll be writing about teachings for me personally, but in wiki fashion, I hope that I won't be the only one editing these documents. ull requests will allow to do this easily, and git will allow both moderating and history archiving. You can also just fork this repo to keep your own reading notes privately.

If you are reading this, please take a look at the repo. If you have read a book that's in here, feel free to add your personal comments. If you've recently read an exciting book, feel free to add a .tex file for that book with your comments.

Hope it helps and looking forward to your input.

PS: I really should be writing this in Markdown, but I don't know yet how to include different files so that README will include everything. I'll figure it out soon, promise.

Two ways to read and edit this document:

1. If you know LaTeX, you can just read the source files. It's mostly text anyway.
2. If you don't, I'll post a current version of the PDF on my personal webpage. On the other hand, edits will have to be made using LaTeX, so I guess you'll either have to learn the basics, or just edit inline using Github and the examples given by current reading notes. Have fun. :)

## 1.1 Contribution rules

- Add `%!TEX root = ./reading_notes.tex` at the beginning of every new book file.
- **One sentence per line. This allows for easy merging of edits. Thanks!**

Pull requests that don't respect these rules will be rejected. If you have any doubts, just check current files.

## 2 Books on reading list

Tell us what books you're reading, and create reading communities. :) Remove them from this list when you're done updating the corresponding Reading note. Please add new refs to .bib

### 2.1 To Read/Add to repo

- Army of None by Paul Scharre  
GeoffNN
- Data Analysis with Python by David Taieb  
GeoffNN
- The 3 Body Problem by Cixin Liu  
GeoffNN
- Building Machine Learning Systems with Python by Luis Pedro Coelho, Willi Richert and Matthieu Brucher  
GeoffNN
- Robust Optimization by Ben Tal, El Ghaoui, Nemirovski  
GeoffNN
- Shop Class as Soul Craft  
GeoffNN
- The Lost Continent by Bill Bryson  
GeoffNN
- Designing Interactions by Bill Moggridge  
GeoffNN
- Death & Co: Modern Classic Cocktails by David Kaplan, Nick Fauchald and Alex Day  
GeoffNN

- Cocktail Codex by David Kaplan, Nick Fauchald and Alex Day  
GeoffNN
- Sapiens by Yuval Noah Harari  
GeoffNN
- Reductionism in Art and Brain Science by Eric Kandel  
GeoffNN
- La Distinction par Pierre Bourdieu  
denismerigoux

### 3 The Innovators – Walter Isaacson

This book follows the great adventure of computing, networking, the Web and social media – Sidenote: funny how social networks became social media now – from the 1850s to 2014. Interestingly, there’s little mention of Facebook and Twitter: the author didn’t foresee opinion based truth.

Things to remember, and ideas they spark:

- Innovation comes from good teams. In a good team, often you need a visionary and a good product manager. Note for me (GeoffNN): I’m not a good product manager. Definitely a networker/team builder/connector. And rather good at starting projects and having ideas.
- Building stuff is important. Shipping it to the right crowd is even more important: they can help build/curate stuff and feedback is gold. Google is collaborative: the only input of the search engine is how to weight contributions (links)  $\implies$  PageRank. Seeing Google this way changes everything. Organizing other people’s contributions in a meaningful and easy to understand way is more than gold.
- Hiring is important. Your company/unit’s culture is the one of the people in it. You can’t change it other than by changing the people (hiring and firing).
- Be ambitious. And focused. Be monomaniac for a few weeks to actually build a version that sort of works. Then build on that. Hire, get a community to help. Whatever.
- If going commercial, keep license of what you make. Don’t sell exclusivity.
- People are important. Products are for people. Everything we make should help people, and people are never the issue: the user crowd is always right. Systems must be easy to use. Iterate. Get feedback. Stay open minded.
- Teams are important. Yours, but not only: help others you believe in build good teams. You can’t hire everyone good that you know. Internship programs are amazing for this: they create networks of good people, and cross pollinates different institutions.

- Investing is important. In particular time: always collaborate. Hang out with smart people. You'll get ideas and motivation.
- Keep humanities in mind. We're augmenting intelligence. This should be for a good purpose. Caveat about the Defense industry: protecting soldiers giving their lives, and protecting people in general is a good goal (GeoffNN)
- Status now: good network of good people. Not enough building things that work because of lack of motivation and **focus**. Why? Usefulness. I'm a practical oriented person (despite what people say) well versed in theory.
- I like where I'm going these days. Towards more collaboration – always good in the long run. If people steal my ideas, it's only that I didn't convince them to be on my team, or that I wasn't good enough delivering. Fighting big guys on their turf (large computation needs for ex in research) is stupid. Having better ideas, concepts, MVP and TEAM to make them is where a small team's value is. Being acquired is fine.
- I want to do this. I actually hate having a boss – but I'm really open to learning.
- On this note: take a boring job at some point. I want to feel frustrated and the need to build something of my own. Challenging smart people and hogging their time is how big companies dominate the game. Even more so than paying them; although for the more risk averse that's an easy way too.
- All these incredible systems are amazingly young. And started with nothing. And developed randomly: a VC suggested advertising to Page and Brin at breakfast. This changed the Internet and a lot of people's lives, without them knowing it.
- Build a content/user centered social media? Medium is one. Lacks hyperlinks/easy feedback. Author (Isaacson) suggests a collaborative e-book. How can this make money? How could this be done?
- The interaction between humanities and engineering is key. We build roads to connect people and sell stuff. We built the Internet to share ideas – it stemmed from Defense and Research. Al Gore opened it to everyone and commercial ventures. People want to sell stuff, make money, and bring their ideas and content to other people. People get a wiki-high when they post updates that everyone will read. ASMR and so many other YouTube subcultures yield human gratification – and money, as a by-product. Content has worth: if you make something people like, you should make money somehow.
- Government, industry, academia, and people, i.e. **everyone** (i.e. the crowd) working together is the best thing that can happen. Their roles are different, different kinds of people work in each setting, but if everyone has the right spot and works with the right people, amazing things can be built.

## 4 The power of Habit – Charles Duhigg

This book is concerned with how your habits can be used to get great results in what you want, and how to change your habits. This can be seen at both a personal and institutional level, where organization habits are a mix between official routines and organization culture.

The goal is to make it unnecessary to think to do great things: these things should be automatic.

- Having studied in several difficult programs, and practicing martial arts, I understand that habit building is basically drilling.
- Building a habit and not having it break down under pressure takes 4 things: a cue, an action, a reward; and a strong belief in the rightfulness of the habit.
- Not all habits are equal: keystone habits are habits that change your way of life/your structural organization. Exercising regularly, or being having one important goal in mind will yield subhabit creations. Having to study for long hours changes your sleep/wake up routing for example. Prépa: having to be able to concentrate for long hours meant everything else had to become automatic. Waking up, showering, having breakfast, sleeping at a certain time. It all came from weekly homeworks having to be handed in without thinking. From focus emerges structure.
- Some habits trigger belief; e.g. being focused on worker security for Alcoa (Aluminum company of America). Making it easy for good security protocols to emerge and fixing everything fast made the whole company much more nimble and aligned management and workers' interests.
- For me (GeoffNN), showering and then having breakfast immediately are keystone habits.

## 5 La distinction – Pierre Bourdieu

La thèse principale de cet ouvrage, est que l'intense déterminisme social qui sous-tend les goûts et les jugements de chacun a pour déterminant la volonté (ou non) de distinction par rapport à un groupe social. Voici quelques éléments intéressants expliqués dans cette théorie. Le vocabulaire est celui du bouquin, ça fait un peu marxiste mais il faut bien mettre des mots sur les choses.

- Empiriquement, les membres de la petite et grande bourgeoisie qui dans leur jeunesse affichent une volonté de distinction par anticonformisme finissent généralement par se ranger à un jugement plus conservateur avec l'âge. Cependant, Bourdieu soutient que cette droitisation n'est pas liée à une quelconque sagesse ou expérience acquise avec les années, mais plutôt à la superposition de deux effets. Les individus ayant réussi dans leur vie et ayant rejoint la fraction dominante de la classe dominante avec

l'âge utilisent les positions conservatrices justement pour protéger leurs intérêts. Au contraire, les individus ayant suivi des trajectoires sociales que l'on pourrait qualifier d'échec au regard de leurs aspirations initiales utilisent leur droitisation pour rejeter l'anticonformisme qui les a mené dans cette position.

- Bourdieu présente un diagramme présentant le taux de fécondité en fonction de l'origine sociale. On remarque que la fécondité est élevée chez les classes populaires et la bourgeoisie mais pas chez la petite bourgeoisie. Ceci montre la stratégie implicite de la petite bourgeoisie de concentrer son capital économique au travers de générations (enfants unique) afin de maximiser les chances d'ascension sociale. Cela a beaucoup résonné avec mon (denismerigoux) histoire familiale (du côté de ma mère, que des enfants uniques, grande famille du côté de mon père, dont la mère est de la grande bourgeoisie brésilienne et son père des classes populaires corréziennes).
- Fascination de Bourdieu pour la fraction de la petite bourgeoisie qui joue le plus le jeu méritocratique affiché par la société, et qui passe sa vie à se sacrifier en échange d'une hypothétique ascension sociale. Peu de dépenses, peu d'enfants, peu de plaisirs, morale rigoriste ; c'est une fraction qui a un peu disparu du champ sociétal depuis les années 1980 pour être remplacée par ce que Bourdieu appelle la nouvelle petite bourgeoisie marquée par une ouverture d'esprit très limitée sur quelques sujets et une soumission complète aux intérêts marchands. Cela m'a fait prendre conscience du contrôle social très puissant opéré même dans les sociétés que l'on dit libérales ; cependant quelle société veut-on vraiment ? Veut-on une société de petits bourgeois ascétiques et rigoristes ou une société de grands bourgeois ?
- La classe dominante est elle-même extrêmement fractionnée et il est important de reconnaître les fractions dominées et dominantes de la classe dominante. Est-il possible de se retrouver dans la fraction dominante sans en posséder l'état d'esprit, le jugement qui ne peut s'acquérir que par une éducation qui baigne dans ce milieu ? Beaucoup d'exemples de ceci donnés par Bourdieu en termes de consommation culturelle.
- L'autodidacte est toujours jugé sur ce qu'il ne connaît pas, il n'a pas le droit d'ignorer comme quelqu'un qui serait passé par une éducation formelle où les savoirs sont hiérarchisés. On a beau y mettre autant d'efforts que l'on veut, être à l'aise dans un milieu ne peut pas se faire à coup de connaissances pures. C'est le concept de bonne volonté culturelle, qui est utilisé par les petits-bourgeois pour se distinguer de leurs semblables mais cela ne trompe pas les bourgeois.
- Mon parcours personnel reflète un embourgeoisement et le passage par un milieu très bourgeois (l'X) m'a poussé moi-même vers des habitudes culturelles et de vie que je n'avais pas du tout avant. La théorie du bouquin explique donc parfaitement beaucoup de choses qui résonnent avec mon parcours personnel.