

A Note on Graduate School, Post Graduate Life and Their Challenges

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1 Graduate School Life

1.1 Motivation

This note assumes you are (have decided) in (to be in) graduate school. If you are not there yet, or even if you are, you may want to read [Notes on PhD by Douglas Comer of Purdue](#). I Hope these notes would enlighten some parts of the path you will be going through. It is not meant to provide a “*optimal*” *solution*” for challenges of graduate school, path through graduate school and the life following afterwards. Such a thing does not exist. The other day I was watching a YouTube video about guitars where the guitar player/professional made an statement, “even if you use the same craftsmanship and the same type of wood, two guitars would not sound the same”, he said. Probably that is true even if the wood is from the same tree since the stump might have a denser wood compared to the top parts of the tree. The landscape of life we live is more complex, it is dynamic and it evolves. Each person goes through different experiences everyday, each experience is a brick in the wall of one’s character. Each person has his/her passion, abilities, vision and goals. Hence, there is not a unique prescription for two people. However, there are certain principles that apply to most people, since we all are trapped in the standards established by society, we are pushed by society’s flow, and whether we like it or not, whether they are right or wrong, we have to find a way to make our paths through it. We could be creative, resourceful and make our lives and the life of people in our circle a little bit better and easier.

Now, let’s dive into the principles and the goals of this note. The reason I am writing this is to, hopefully, provide some perspective based on my own experiences and observations I have made. (I will keep updating this post as I talk to people, observe and gain more experiences.)

1.2 Principles

- **Responsibility** I do realize that people entail different characteristics. Some mostly live in the past, some mostly in the moment and some are more self-aware and constantly think about the future. I do realize that it is hard to change the gear and get out of comfort zone but, in order to be successful and have a pain-free or less painful future, we have to accept responsibility of our actions. We must understand if we do

not think about the future, we cannot make our way and at the end we have to take all the blows (That is right, I like the song “My Way” by Frank Sinatra). Therefore, we have to act responsibly.

Probably this is the most important and perhaps the only principle, and it has different dimensions to it.

□ **RD1 (Responsibility Dimension 1): Passion and Skill Set**

Think about why you are where you are. I do understand finding passion is a hard task. There is no algorithm one can go through and find his/her passion. You are exposed to certain areas in the course of your life, if you are lucky then you find your passion. But a lot of people go with the flow. The flow is strong and fast and it **may not leave any time to think**. I do not intend to go to the root of this, but you maybe somewhere that you are not passionate about, therefore, you might not enjoy what you are doing and hence, you may not be very effective and therefore, after your graduation you might not be well equipped to be hit with reality of life. That will haunt you in two ways. One is that you will not be happy about what you did and what you can do with your degree, and the second is that you will have a hard time to find a job. Therefore, if you have not found your passion and you are not certain what you want to do, at least be responsible, watch out and observe. **Expose yourself to as many areas as you can**, as many skills the industry in your field needs. By exposing yourself to many different areas, you increase your chance of finding your passion and you will be a resourceful person.

□ **RD2: Vision**

Even if we assume you have determined your passion, there is a chance that your taste changes over time. Therefore, assuming that your passion in the first place matches that of your advisor, you will be a different person in 5 years, and therefore, there is a chance that you want to work in the new area. So, even if there was not a difference between your vision and your advisor’s vision, there might be a difference at the end. Because of the differences of between these visions, you have to proactively learn new things and be prepared to take actions that are needed to be taken. You cannot rely on your advisor or anyone to prepare you for the future. You have to build it and you have to form your own agenda. Keep in mind, the assumption I made above is not true in a lot of cases. You have to be lucky to have an advisor who cares for you and thinks about training/mentoring you.

Advisors have their own agendas. They may want to use you to get their tenure (faster). They may want to get as many papers out of you to go from school A to a more prestigious school B. They maybe responsible for a grant and want their projects to be done (which in this case at least you are working on a real world problem which helps you learn and make your job hunting easier). In either case

the system can turn a lot of them into jerks, and unfortunately if you are an international student then you are going to have to deal with it to avoid visa issues, etc.

□ **RD3: Networking**

In order for having/making the future easy, you have to make connections. Get out of your shell. Be Bold. Talk to people. Participate in networking events near you. Send messages to people on LinkedIn. If you make 2 connections per month over the course of graduate school, then you will not feel hopeless, helpless and you will not act desperately after the graduation. Most probably you will have a connection that may be eager to help you to find a job. Not only that, but also when you talk to technical people in or out of your field you will learn new ideas. That will make you a better problem solver and a resourceful person.

□ **RD3: Non Academic/Scientific Skills**

You are going to have to accept responsibility for this one as well, big time. Lots of advisors do not know and do not teach how to write a resume. They most probably do not know anything about industry and the transition from academia to industry. If you are lucky, they will admit they “do not know” and they will not point you to the wrong direction. Otherwise, you will be chasing something that is not there!

Start reading about how to write a resume, how to write a teaching statement, how to write a research statement before your graduation. Spend an hour on weekends to read about these. Practice writing them. Try to interview for internships or jobs. Even if you are not going to graduate or get a job soon, just do it. Apply for jobs and familiarize yourself with the process, with the questions, with the stress before it is too late.

1.3 Conclusion

- Try to find your area of interest.
- Work on different areas. Earn as many skills as you can.
- Network, Network, Network.
- Practice, Practice, Practice.
- [An article about a book you want to read.](#)

2 Post Graduate

2.1 Motivation

This section will be strictly talking about one issue at this. The graduate and post graduate life are strongly coupled, hence, I am having it on the same note.

Recently, for some reasons I have started to think to get a second Ph.D., thus, I have had some discussions with friends, faculties, and read what people think about getting a second Ph.D.. I would like to share the views.

2.2 Getting a Second Ph.D.

For a lot of people changing path is a sign of confusion. Some may worry about what society would think of them. For these reasons, or some other reasons, they stick to the decision they made at the age of 18, they keep eating the same meal everyday, and keep going while they do not like what they are doing. In my opinion all these reasons are bullshit and lack of courage to at least admit the fact that they are wrong.

2.2.1 Arguments

1. **A.** "... getting two PhDs in two unrelated areas does not show how much of a super genius you are; it shows that you really changed your mind considerably about what you wanted to do with your life and maybe wasted a lot of your time."

R. I do not understand what is the problem of changing your mind. Once you decided to do history, now you decide to do math. That is your life, your choice. If at the moment you want to do mathematics, then do it. Geoffrey Hinton and Jean Taylor have changed their minds not just once! A few times, and they are happy and in good shape.

P.S. Look at Geoffrey Hinton's interview with Andrew Ng on Deep Learning Specialization course on Coursera, first course, first week's last video. And I have heard Jean Taylor's story first hand when she was giving a talk at WSU, I do not know where you can find her story. She was in Chemistry department, then liked the bubbles, and moved to mathematics eventually. And she has switched more than once, I do not remember exactly, but as far as I remember she did things like psychology, sociology, history, something like that, totally irrelevant to chemistry and math.

2. **A.** Some people decide to pursue computer science after earning a degree in physics. That is because there is no job for physicists. Hence, it will not look good on their resume, or we should not accept his application for admission, etc.

R. Why is not it the sign of finding passion? Even if we assume the reason is not having a job, what is the problem with that? The man has to eat or starve? Even not having a job to get into a new program is a valid argument. Some faculty may disagree with you, and that is fine. You better off without them. The one who understands and wants to work with you is a better fit for you anyway.

3. **A.** Those who attend a second graduate program, might be confused or they are doing it for not having a job, therefore, they may leave in the middle of the program.

R. Leaving in the middle of the program is equally probable between those who are committing for the first time or for the second time. What are you talking about? At least the one who is doing it for the second time has a better understanding of what s/he is doing, what it takes and what are the costs.

2.3 Conclusion

Do not let 1 million wrong people cloud your reasoning. A lot of people go with the flow. They are on the horse of convincing other people to do what they are doing. Seek the truth but run away from those who found it.

Another example is that one person has said "students are customers of colleges". I do not know what was the purpose of initial statement. But since colleges are looked at like a business, they use that logic to keep students happy by passing them who have not learned anything and deserve a big fat Z, let alone F. Story is long, but the point is a lot of times, a lot of people are wrong, or are doing the wrong thing to get what they want, like money, do not be fooled by them.