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Newsletter

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Who is PAPS?

João Canning Clode
Postdoctoral Fellow at SERC
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I am a marine ecologist seeking excellence in science, which explains why I decided to leave Portugal and perform my studies in Germany first, and now in the USA. Currently I am a postdoctoral fellow in the Marine Invasions Laboratory at the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland, USA, and the Smithsonian Tropical Research Institute (STRI) in Panama City, Panama. I am investigating patterns of invasion ecology in fouling assemblages (organisms which live on, in, or near hard and artificial surfaces like ship hulls, buoys) in North and Central America. This work has two elements. First, I am exploring the roles of latitude and spatial scale on the diversity of fouling communities, by examining differences in the native and invasive components of these assemblages. To that end, I am using a 10-year old database, which includes invasion information for fouling organisms from 25 bays around the globe, to uncover comparative and temporal patterns at a global scale. Second, I am conducting a series of field experiments in USA, Mexico and Panama to determine the effects of pollution on native versus invasive diversity measures and whether this changes with latitude.

Prior to my appointment at SERC, I graduated from the University of Madeira, Portugal, back in 2005. I carried out my Master's thesis project in the framework of an International training and research network – the GAME project (Global



João Canning Clode

Approach by Modular Experiments), based in Germany. I conducted a field experiment addressing the influence of disturbance and nutrient availability on the diversity of fouling assemblages at Funchal Bay, Portugal. My participation in this project gave me the opportunity to meet in person the founder of this international project, who apparently appreciated my work and invited me for a PhD with him as a principal advisor. During my PhD, which was

finished in 2008, I received a rigorous formal training of quantitative analysis of spatial and temporal dynamics in marine fouling assemblages.

I now believe it is key to have international experience in all fields of science. Unquestionably, my experience in Germany and now in the USA and Panama, are giving me the tools I need to succeed in the path I choose.

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Last June 2010, the Seattle Chapter of PAPS celebrated the Popular Saints. In this first meeting, we managed to gather ten members plus their families. The event took place at the Gas Works Park and the menu included grilled sardines, custard pie, as well as *Sagres* and *Sumol* beverages. We are grateful to PAPS for sponsoring the barbecue.

More events are being organized such as a hike to Snow Lake this coming August. This time we would like to invite any PAPS member to attend it (especially the members from the Bay Area Chapter due to their proximity). Come and enjoy the beauties of the Pacific Northwest!

But the Seattle Chapter aims to do more. We have been brainstorming and compiling information about career opportunities in Portugal for postgraduate scholars.

Finally, as the leader of the Seattle Chapter, I would like to thank all its members for their active participation.

*Andreia Serra
 Seattle Chapter Leader*

PAPS Events

> Seattle Chapter



Photos by Sílvia Salvador

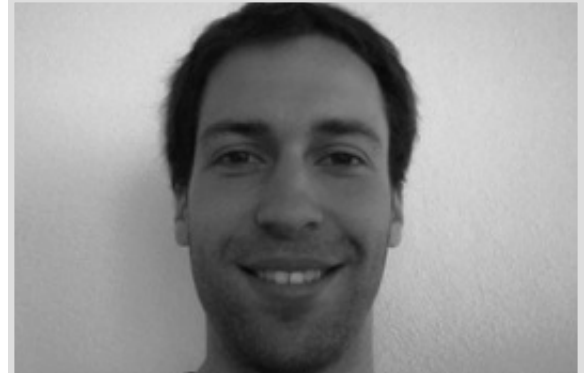


> Lessons on Entrepreneurship from my MBA Experience

Ricardo Diz

MIT Sloan MBA Class of 2010

Consultant at The Boston Consulting Group (BCG)



Ricardo Diz

In 2008 I left Portugal and BCG to come to MIT Sloan and join the MBA class of 2010. One of my goals coming to Sloan? To learn about entrepreneurship, absorbing experiences shared by the existing entrepreneurial community. I believe I learned a few lessons about it from different sources, and since I haven't seen a similar compilation posted anywhere, I wanted to share them with whoever might be interested. I know I would have been two years ago...

> The Lessons

When I started to organize all the tips, lessons, and patterns I kept hearing from all the interesting people I met during these last two years, I realized they all fell in 4 different categories regarding different sections/challenges in entrepreneurship: Market, Financials, People, and Product. Therefore, I decided to use them as a framework for the lessons shared below.

A. Market

A1. Think about what is the core of the business idea, and why will you do it better than everyone else.

You need to be solving an existing problem better than anyone else. This competitive advantage will help you to naturally succeed. If you are better than others, sooner or later you will win the battle against them.

A2. WIFM!

The first time I heard Howard Anderson - a MIT professor and a successful entrepreneur - say this, I thought he was referring to a radio station! In reality, this means What's In It For Me? For all stakeholders involved, you have to add value! This way, the incentives are aligned for everyone around your venture, and it's easier to overcome the natural inertia to change.

A3. Focus on one particular segment and product first.

Think about it: today people are overwhelmed by information. With the span of attention going down, you want to make it as easy as possible for someone to understand what are you trying to do. Also, you have limited resources as a startup. Therefore you should focus on getting one product in one segment out of the door, and take the first chance you get to excel. You need to prove yourself first! Generally this means you should aim for the highest market share in a niche that can easily grow to other segments and products.

A4. Diversify / go for another product launch or market segment after your first success.

This should be the natural step following the last lesson. Now that you succeeded with your first product, the field is open to continue with a pipeline of products that can leverage on your

experience and client base to continue growing.

B. Financials.

B1. Think big and change the world: go for a \$50M potential business in 3-5y, otherwise it might not worth the effort.

While talking to entrepreneurs either for an E&I class (the Entrepreneurship and Innovation track that exists in MIT's MBA curriculum), or local events for entrepreneurs, I noticed they all had a passion to do something big. If you want to create an impact, why wouldn't you want to be big? You can contribute to change the world, and it all starts with this mindset. This will also motivate you even more, and it compares better with the opportunity cost.

B2. Low fixed-costs are important!

I have to say that, when I was first talking to VCs last summer to see what kind of opportunities existed in interesting portfolio companies, I didn't expect a big salary cut compared to other internships. When one VC told me that he didn't know of a startup that would easily pay what I thought was more than reasonable for an internship, it made me rethink what an entrepreneur should earn. I came to the conclusion

that the founders should start earning as little as possible to manage the scarce resources/cash available. In fact, I even think that some startups' CEOs earn too much. It seems the tradeoff is made along a spectrum from bootstrapping (earning almost nothing but keeping all of the control

“Think big and change the world”

and upside), to having VC money and reducing the personal/professional risk (good salary, but less control of the startup, and less compensation on an exit). Incubators and programs such as YCombinator from Paul Graham and TechStars program from the Foundry Group help to create the right mindset by providing minimal funding and a structured path to product launch.

B3. Watch your “burn rate” and follow cash flow statements carefully!

I've heard this time and time again: A majority of startup fail because they run out of cash. The money is limited, and if you don't have a close eye on it, you will quickly be in trouble. The last place you want to be is raising money when running out of cash. First, it might be too late by the time you get funding. Second, if you are able to get it, the investor has a huge negotiation power which will be translated into ugly term sheets for the entrepreneur.

B4. Go for a high margin business.

Creating a company should be exciting, with all dynamic variables in the organization changing, and decisions made with little information. You're sure to make mistakes, and high margin businesses, besides being interesting because of potential returns, also create a cushion for these

mistakes.

C. People

C1. Have at least 3 founders on the team.

In 2008, Ed Roberts, Chairman of the Entrepreneurship Center at MIT, presented a very interesting study on MIT startups. One of the conclusions was a positive correlation between the number of founders and the rate of success of the companies! To me, it makes sense: if the founders have a good dynamic going, they will motivate each other, solidifying the commitment and cheap labor the venture needs. Although I agree with this rule of thumb, I think that if this is the only thing you're missing, go ahead and found your company. I worked for a year on a startup idea with only one other person.

C2. Understand the commitment: next 5-10y counting money, while all investment banking/Consulting/etc friends are making at least 6 digits a year.

I really think this is an important lesson. If one is not prepared to understand this, then I believe there will be more frustration and a higher temptation to quit.

C3. Startups are all about the ability to execute perfectly, rather than constantly overanalyzing the market.

After talking to several entrepreneurs I concluded that success with startups is all about execution. Act before having all the facts, as startup analyses are not the same as for big corporate companies.

C4. You need founders with different complementing skills.

There are no perfect people. Some have communication skills as their strength, others are outstanding developers and love to code, etc. I don't know anyone who does everything right. It seems natural to me that having all of these skills working together is important.

C5. Don't give fancy titles to new employees and founders easily.

When you try to give a job to a potential employee, it is easier to give a nice job title – eg. VP of Marketing. Don't do it without carefully thinking about it. Is the person really capable of having that title when the startup grows? It's easier to attract top talent with a better job title, however, what is the cost of doing this? Can you demote the person if you need to bring someone more experienced on board to take care of an expanded venture at a later stage? Additionally, don't give CxO titles easily, including to founders, without understanding if that person is willing to be demoted in the future. The title “Founder” seems great to me and it's flexible enough as well!

C6. Don't forget to have vesting for founders' equity.

It's important to split equity, but don't

“Success with startups is all about execution”

be afraid to put it off a bit until roles are solidified. More importantly: create a vesting schedule. In one of the group projects I did at MIT, we interviewed several finalist companies from the last 3 years of the 100k Business Plan Competition. One of their biggest regrets? Not having thought about vesting! In several cases, a founder left the company right in the beginning, taking a huge stake of the equity. When the team needed to bring

someone else on board, there was little equity left to give without big dilution. The incentives have to be aligned. If someone leaves during the first year, they should definitely get not all their equity. Naturally, VCs put this on the term sheets they offer to companies, but entrepreneurs should do this at the earliest stages.

D. Product

D1. Prefer a product to a services business.

Services are hard to scale, products are not. You will get more economies of scale with the latter, possibly translating to a higher margin business and a more rapid expansion.

D2. Get feedback, as often and as early as possible.

Keep the client close. You have to understand what the client needs, and act accordingly. The earlier you know this, the better. Make the client part of the development process.

D3. Start selling in the vaporware stage, but make sure you don't commit to deliver the next day.

As soon as you launch your startup, you should begin the selling process. Sometimes the sales cycle can take awhile, and if you can get a client to commit, do it. This will give you less risk, but also means that you have to manage expectations flawlessly. Make sure product promises are achievable! Of course, when selling, a picture is worth a thousand words, and a prototype makes selling much easier. :-)

D4. Go through Quality Assurance (QA) / testing before you ship.

When you start shipping your product, it means that you did a good job

“Entrepreneurs are completely focused in the product, love to talk about it, and dreaming about it every night”

getting a sale. This means you agreed on *one* opportunity to show what you're worth. Don't waste it by sending something that works poorly. It brings your credibility down. And this means not only credibility with your client, but in the market as a whole. A bad product has word of mouth working faster than you would believe. Under promise and over deliver!

D5. If you have to cut features to ship on time, do it and prioritize.

When developing a new product in a startup, you have so much flexibility and creativity that you might think about all possible features. Nevertheless, at some point, you just have to ship. Remember, R&D is an investment, but a sale brings the money home! As an example just think of the first generation iPhone. The timing of launch was great, as there was nothing similar in the market. However, it came out without the latest mobile network technology (ie. no 3G). It was a hit, but if it was launched later, there was a chance that the market wouldn't be as receptive...

D6. Be obsessed about the product!

I read a statement recently on Brad Feld's blog (a successful entrepreneur and VC, and an MIT alumnus), and it immediately resonated with me. He says that successful entrepreneurs he knows are completely focused on the product, love to talk about it, and probably dreaming about it every night.

And there you have it. These are the entrepreneurship lessons I'm keeping with me. I am amazed by the impact these two years at MIT had on the way I see the world. The amount of different experiences I had clearly made me grow personally and professionally: working in Malaysia for a small startup for G-lab, a summer internship starting a boutique luxury hotel chain in the Caribbean, becoming part of the diverse and wonderful 2010 class and the entrepreneurial community at MIT / Cambridge, and traveling all over the world, from Asia to South America. I am now a different person. Hopefully, better prepared for the future. All this, while having fun! What more could I ask for?

What about my own company? With all this enthusiasm about entrepreneurship, shouldn't I be working on a startup by now? Well, I worked on one for a year, but decided not to pursue it. Why? I had expected proof points that I felt I needed to overcome my opportunity cost, and we were not able to get there in time. The main hurdle was having a customer working with us by January this year, which we weren't able to secure. In the end, I'm returning to consulting, but have started to think about other ideas to work on in the future.

My advice to incoming MBAs who want to become entrepreneurs? Start early and focus on it during breaks (IAP, Spring break, etc), saving money and getting closer to important milestones. That being said, I have no regrets whatsoever. This is a tradeoff I am glad I didn't fully make, as traveling was very important for my experience. Coming to Sloan will make you have a ton of options, just choose the best ones for you.

*in MIT Entrepreneurship Review
<http://miter.mit.edu/node/186>*

Full job descriptions in PAPS website

Description	Employer	Location
3 vagas de Professor Auxiliar Convidado: Informática, área de Organização de Sistemas Computacionais	Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa	Lisboa
Professor Auxiliar Convidado: Informática	Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa	Lisboa
Professor Associado: Sociologia do Desporto, Antropologia do Desporto, História do Desporto, Psicologia do Desporto	Faculdade de Desporto da Universidade do Porto	Porto
Constituição de Bolsa de Professores Convidados: Educação Física, Educação Musical, Educação Visual	Universidade do Minho	Braga
Recrutamento de Professores	Academia de Humanidades e Economia	Castelo da Maia, Maia
Docentes Universitários com grau de Doutor	Escola Superior de Atividades Imobiliárias	Lisboa
Junior Financial Analyst	Hanalei-finance	Porto
Docentes: Tecnologias da Informação	ISTEC - Instituto Superior de Tecnologias Avançadas	Lisboa
Professor Auxiliar: Tecnologias da Informação e da Comunicação	EIA/Universidade Atlântica	Lisboa
Investigador Auxiliar, ramo de Psicologia Médica	Faculdade de Medicina da Universidade de Coimbra	Coimbra
3 posições de Investigador Auxiliar, Interação Homem-Computador	Madeira Interactive Technologies Institute	Funchal, Madeira
Bolsa de Cientista Convidado	LIP (Laboratório de Instrumentação e Física Experimental de Partículas)	Lisboa
Director I&D	Edigma	Braga
Business Development Manager	Hovione FarmaCiencia SA	Lisboa
Químico de Processo	Hovione FarmaCiencia SA	Lisboa
Colaborador na área de edição de livros e revista (part-time)	Formalpress	Lisboa
Colaborador na área de Jornalismo/Investigação (part-time)	Formalpress	Lisboa
Professor Associado: Tecnologia, Processos e Gestão da Construção da área de Eng. Civil	Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa	Lisboa
Duas vagas de Professor Adjunto: Área Disciplinar de Enfermagem	Universidade da Madeira	Funchal, Madeira
Job in New Brunswick, NJ, for Portuguese/English speaker	Innovatia	Saint John, New Brunswick, NJ, USA

**Know of job offers that may be interesting to PAPS community?
Send them to paps@papsonline.org and we will post in the Job Board!**

Opportunities and News

> Entrepreneurship

Young Entrepreneur Award, a joint initiative by the National Young Entrepreneurs Association (ANJE) of Portugal and *Instituto de Emprego e Formação Profissional* (applications open until September 30, 2010).

<http://www.anje.pt/academia>

New Ideas and Business Contest: *Arrisca Coimbra'10* (applications open until October 18, 2010).

<http://www.arriscacoimbra.pt/>

> Science 2010 – Meeting Science in Portugal

Science 2010, the largest annual meeting of Portuguese scientists, was held from July 4 to 7, 2010, at the Lisbon Congress Center. The program of the sessions had the active participation (as speakers and chairs) of more than 60 companies and 150 research institutions. Also, about 400 students registered to present posters. You can now watch the video of most sessions in the event website, including an interview with Minister of Science and Technology Mariano Gago.

<http://www.ciencia2010.pt/>

> ERC Starting Grants 2011 – call is OPEN!

European Research Council (ERC) Starting Independent Researcher Grants aim to provide critical and adequate support to early-career research leaders, of any age, with 2-12 years of experience after their PhD. Researchers can be of any nationality as long as they are working, or moving to work, in Europe.

The competition is open to proposals in any field of research (from Social Sciences and Humanities to Life Sciences and Physical Sciences). The

available call budget is 660 Mio Euros. The three deadlines will be throughout this autumn (depending on scientific domain).

<http://erc.europa.eu>

> Largest ever awarding of prestigious European grants to Portuguese life scientists

Five young group leaders in Portugal have just joined the prestigious network of recipients of the European Research Council Starting Grants, in what is the largest yield to date for Portuguese researchers in this prestigious and highly competitive funding programme. Each researcher thus ensures funding on the order of 1-1.5 million euros, for a period of five years, which will allow them to further unravel processes and molecules underlying the division, movement and ageing of cells, inflammatory responses to disease and adaptation of bacteria to the environment.

Isabel Gordo, Mónica Bettencourt-Dias and Teresa Teixeira are group leaders at the Instituto Gulbenkian de Ciência, just outside Lisbon. Helder Maiato is at the Instituto de Biologia Molecular e Celular, in Porto, and Bruno Santos Silva is based at the Instituto de Medicina Molecular, in Lisbon. They

are all in their 30s and set up their own research groups in Portugal within the last 4-6 years.

<http://www.alphagalileo.org/>

> American - Azorean internship program

Under the Agreement of Cooperation and Defense signed between Portugal and the United States, the Government of Azores, through the regional departments for the Communities and Youth, is organizing the Professional Internship Program in Azores for Young Azorean Emigrants and of Azorean Descent living in the United States of America, named Colombo. The objective of this program is to introduce to young Azorean descendants, studying at American Universities, the present Azorean reality, namely in what concerns the professional context.

Please find more information about the internship program, which might interest both senior undergraduate or graduate students, in PAPS website. In case you have specific interest in this project, you can contact Dr. Alison Neilson directly (aneilson@uac.pt). Otherwise, applicants should contact the Colombo program directly via their website.

<http://www.colombo.azores.gov.pt/>