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## Xavier Amatriain (Phd)

### **Summary**

Currently VP of Engineering, AI Product Strategy at LinkedIn where I lead cross-organization Generative AI projects across product and Engineering. Prior to that, I co-founded Curai, a startup using the latest AI advances to improve healthcare access for everyone. Previous to that I was the VP of Engineering at Quora, but I am probably best known for having started the ML Algorithms team at Netflix in charge of the famous Netflix recommendations. I have extensive research and management experience of more than 20 years. I have authored more than 100 peer-reviewed publications with over 5k citations, and hold several patents. I am mostly known for my work in Machine Learning and Recommender Systems, but I have also done research on areas such as augmented reality, audio and music, signal processing, and most recently NLP, and AI for healthcare. I am frequently invited to talk and lecture on the topic. As a university professor, I have lectured on topics ranging from Software Engineering to Machine Learning and Information Retrieval.

My current position at LinkedIn is at the cross-roads of deep AI technical innovation and product. I am also an advisor to several startups and larger companies on these topics.

### Main areas of expertise

Generative AI, machine learning and artificial intelligence, software engineering, data science, recommender systems, product design, information retrieval, social networks, user modeling, data mining, personalization, multimedia systems

### **WORK EXPERIENCE**

<u>LinkedIn</u>, <u>Sunnyvale</u>, <u>CA</u> - *VP* of Engineering, AI Product Strategy 2022 Current

Leading company wide cross-organizational projects in Generative AI.

Some highlights:

- Initiated GenAl Initiatives: Spearheaded the launch of GenAl initiatives at LinkedIn, fostering cross-functional collaborations and setting a robust foundation for future projects.
- Led initial exploratory GenAI product project: Guided a 10-week tiger team in demonstrating GenAI's potential, culminating in impactful presentations to both LinkedIn and MSFT CEOs and shaping the LinkedIn GenAI product strategy that led to many product feature releases such as the new AI-first Premium experience.

- **GenAI Technical Strategy:** Formulated and led the GenAI technical strategy, evolving into the InGen Initiative for comprehensive AI-first engineering development.
- **GenAI Platform Team Leadership:** Directed a cross-organizational team to develop GenAI solutions, influencing product features and earning recognition in MSFT's Earnings Call.
- **Knowledge Sharing:** Drove internal and external Generative AI educational efforts, including LinkedIn's most successful Hackathon in the history of the company, or a LinkedIn course with over 85k students at this point, engaging learning sessions, and widely-viewed publications (see <a href="blog">blog</a>).

### Curai Health, Palo Alto, CA - Cofounder/CTO

2017 2022 (Currently member of the Board of Directors)

I led the whole technical organization including engineering, AI and clinical research, and privacy and security. I was also directly involved in areas such as Product and Business Development, and general company leadership.

Some of the highlights of my time at Curai:

- Hired many new people into the team, including former employees of Facebook, Netflix, Google, Quora, Microsoft, and others.
- Defined overall technical approach to an AI-centered product that has both patients and doctors as users
- Contributed actively to all our research and publications
- Led the definition of our culture, as well as many processes such as hiring, privacy and security (including HIPAA and SOC-2 compliance) or IT Management.
- Besides leading our technical organization, at different times I stretched to also leading product development, or HR.
- Led several executive hiring processes as well as the organization of our world-class medical advisory board.
- Presented Curai externally at many events such as the AI for COVID-19 conference organized at Stanford
- Contributed actively to our different fund-raising efforts (over \$60M so far), and served in the board of directors interfacing directly with our investors.

### **Various** - Advisor

2017 PRESENT

For the past few years I have been a part-time advisor to several organizations in the AI/Machine Learning space. This includes all the way from large organizations such as LIDL, the largest European retailer, or Manning Publications, to early-stage and successful startups like Vivino. More details upon request.

### Quora, Mountain View, CA - VP of Engineering

2015 2017

I led the Engineering organization reporting directly to the CEO. I was responsible for overall technical decisions on all engineering areas. I managed an organization of around 100 engineers, including 12 managers. Some of the highlights of my time leading the team:

 $\bullet$   $\,$  Hired many new managers into the team

- Contributed directly to the design of new Machine Learning algorithmic approaches
- Led the re-definition of many or our innovation and engineering processes
- Represented the company external at many technical events
- Contributed to many company-wide initiatives such as the definition of our cultural values.

### <u>Netflix</u>, <u>Los Gatos</u>, <u>CA</u> — Research/Engineering Director

2011 2015

I led the Algorithms Engineering team (formerly known as Personalization Science and Engineering), in charge of the world famous recommendation algorithms at Netflix. I supervised projects and was the technical lead providing technical advice to other teams and internal partners on projects related to machine learning, personalization, and search. I organized cross-team activities such as internal and external seminars, and all-hands discussions on algorithms. Some of the highlights of my time leading the team:

- I hired many new people into the team (grew the team from 3 to over 50).
- The team improved several of the algorithms in Netflix recommendation, personalization, and search showing measurable gains for the business. Those improvements were cited in several quarterly investor letters.
- We defined a process to measure improvements that included a complete data pipeline, machine learned models, and offline metrics that were correlated with online AB tests results.
- We improved the general infrastructure by moving systems to the Cloud (AWS), integrating them with Spark and Hadoop.
- We improved the monitoring and real-time alerting on the algorithms running in production.
- I wrote several posts on the Netflix blogpost to explain our advances in recommendation technologies
- I was one of the 4 people selected to give a talk in the first Netflix Engineering Open House
- I gave several external talks representing Netflix in different forums such as KDD, Recsys, Google, Facebook, or Twitter
- I started a popular internal Research Seminar series to discuss advanced topics related to Machine Learning and Personalization

### Telefonica, Barcelona, Spain - Senior Research Scientist

2007 2011

- Telefonica is one of the largest telecommunications companies in the World. As a Research Scientist in Telefonica Research I led the area of Web Science with a specific focus on Social Networks and Recommender Systems. During this time I led postdoc researchers and interns from around the world. My main goal as a researcher was to obtain top-tier publications in the field (see Publication list below) and generate internal IP in the form of patents and tech transfer. I also acted as a high-profile consultant to development teams dealing with projects in those same areas.
- During this time I also organized the ACM Recommender Systems conference in Barcelona (2010)

University of California Santa Barbara, Santa Barbara, CA – Research Director, Lecturer

- Direct responsibility over research coordination, planning and facility management for this research center that includes 3 different labs/studios and around 20 different researchers http://www.create.ucsb.edu. During this period I was also Associate Director for the Media Arts and Technology Initiatives and I led the Allosphere Project. Under direct supervision of the Director, responsible for industry relation, grant writing, facility coordination and PR for a \$40 million multimedia research center to be hosted in the California Nanosystems Institute. Direct supervision of technical issues related to one of the largest immersive environments in the world, an spherical building called the Allosphere http://www.allosphere.ucsb.edu.
- See Teaching section for details on teaching activities during this period

## Universitat Pompeu Fabra, Barcelona Spain — Researcher, Professor

1995 2005

- I was responsible for teams of up to 8 researchers in funded research projects. Project manager and lead designer of the CLAM framework (http://clam-project.org), which won the 2006 ACM Open Source Multimedia competition and was featured in the 2008 and 2009 Google Summer of Code program.
- See Teaching section for details on teaching activities during this period

### **EDUCATION**

### Universitat Pompeu Fabra, Barcelona, Spain— PhD Computer Science

2000 2005

Under the supervision of Dr. Xavier Serra I read my dissertation entitled "An Object-Oriented Metamodel for Digital Signal Processing with a focus on Audio and Music" in January 2005, receiving the highest degree (Cum Laude). I was the first ever PhD student to come out from the Technology Department of the Universitat Pompeu Fabra, a new university in Spain that is already ranked among the top 3 in the country.

### Universitat Politecnica de Catalunya, Barcelona, Spain-

Telecommunications Engineering

1992 1999

### **SELECTED PUBLICATIONS**

#### <u>In the Press:</u>

- Top 10 Most Innovative CTOs to Watch in 2022 Entrepreneur. 2022
- Khosla-Backed Health AI Startup Raises \$27.5 Million To Supercharge

  Primary Care Forbes. 2020
- <u>The People Trying to Make Internet Recommendations Less Toxic</u> Wired. 2019
- Xavier Amatriain: "La inteligencia no es lo que nos define como humanos" (Spanish) El Periodico. 2019

- Curai picks up \$10.7M to create a smarter system to help patients supply the best info for their doctors TechCrunch. 2018
- <u>El español que te enganchó a Netflix quiere ahora que un robot sea tu próximo médico</u> (Spanish) El Confidencial. 2018
- <u>La plataforma de preguntas y respuestas Quora se estrena en castellano</u> (Spanish) El Periodico. 2016
- Netflix moves into deep learning research to improve personalization -Venturebeat. 2014
- The Science Behind the Netflix Algorithms That Decide What You'll Watch Next Wired. 2013
- Remember Netflix's \$1m algorithm contest? Well, here's why it didn't use the winning entry The Next Web. 2012

#### Blog posts

- <u>Transformer Models: an introduction and catalog</u> -2022
- On the usefulness of the Netflix Prize 2021
- Scaling healthcare through AI 2020
- The 7+1 habits of highly successful leaders 2020
- <u>AI for COVID-19</u> 2020
- Making decisions in organizations 2019
- <u>Cultural over/under-fitting and transfer learning. Or why the "Netflix Culture" won't work in your company</u> 2019
- <u>Data as Prior/Innate knowledge for Deep Learning models</u> -2019
- Netflix recommendations beyond the 5 stars 2012

#### Peer reviewed publications (see Google Scholar)

		A	All .	;	Since 20	)17
Citations		517	8		21	174
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- MEDCOD: A Medically-Accurate, Emotive, Diverse, and Controllable Dialog System. Rhys Compton, Ilya Valmianski, Li Deng, Costa Huang, Namit Katariya, Xavier Amatriain, Anitha Kannan. In Machine Learning for Health. 2021
- Medically Aware GPT-3 as a Data Generator for Medical Dialogue
   Summarization Bharath Chintagunta, Namit Katariya, Xavier Amatriain,
   Anitha Kannan. In Proceedings of the Second Workshop on Natural Language
   Processing for Medical Conversations. 2021
- Effective Transfer Learning for Identifying Similar Questions: Matching User Questions to COVID-19 FAQs. McCreery, C. Katariya, N. Kannan, A. Chablani, M. Amatriain, X. Proceedings of the 26th ACM SIGKDD International Conference on Knowledge Discovery & Data Mining. 2020

- Few-shot learning for dermatological disease diagnosis. Prabhu, V. Kannan, A. Ravuri, M. Chavani, M. Sontag, D. Amatriain, X. Proceedings of the Machine Learning for Healthcare Conference. 2019
- Learning from the experts: From expert systems to machine learned diagnosis models. Ravuri, M. Kannan, A. Tso, G. Amatriain, X. Proceedings of the Machine Learning for Healthcare Conference. 2018
- Lessons learned from building real-life recommender systems. Amatriain,
   X. Agarwal, D. Proceedings of the 10th ACM Conference on Recommender
   Systems. 2016
- Recommender systems in industry: A netflix case study. Amatriain, X.,
   Basilico, J. In Recommender systems handbook 2015
- Mining large streams of user data for personalized recommendations.
   Amatriain, X. ACM SIGKDD Explorations Newsletter. 14[2]. 2013
- Data Mining Methods for Recommender Systems. Amatriain, X. Pujol, J.M. Jaimes, A. Oliver, N. [2011] In Handbook of Recommender Systems.
   Springer. 2011
- Walk the Talk. Analyzing the relation between implicit and explicit feedback for preference elicitation. D. Parra, X. Amatriain in the 2011 UMAP Conference. Girona. Spain.
- Frameworks generate domain-specific languages: a case study in the multimedia domain. Amatriain, X., Arumi, P. IEEE Transactions on Software Engineering. 31 [4]. 2011
- Multiverse Recommendation: N-dimensional Tensor Factorization for Context-aware Collaborative Filtering. A. Karatzoglou, X. Amatriain, L. Baltrunas, N. Oliver in the 2010 ACM Recsys Conference. Barcelona, Spain
- Hybrid Methods for Recommending Connections in Online Social Networks. R.
  Garcia, X. Amatriain in the Workshop on Recommender Systems and the
  Social Web in the 2010 ACM Recsys Conference. Barcelona, Spain
- Temporal Diversity in Recommender Systems. N. Lathia, S. Hailes, L. Capra, and X. Amatriain in the 2010 ACM SIGIR Conference. Geneva, Switzerland
- Towards Fully Distributed and Privacy-preserving Recommendations via Expert Collaborative Filtering and RESTful Linked Data. J. Ahn, X. Amatriain in ACM/IEE Conference on Web Intelligence. 2010
- Off the beaten track a mobile field study exploring the long tail of mobile tourist recommendations. N. Tintarev, A. Flores, X. Amatriain in the 2010 Mobile HCI Conference. Porto, Portugal
- The Wisdom of the Few. A Collaborative Filtering Approach Based on Expert Opinions from the Web. Amatriain, X. Lathia, N., Kwak, H. Oliver, N. SIGIR'09
- I like it... I like it not: Measuring User Ratings Noise in Recommender Systems. Amatriain, X. Pujol, J.M., Oliver, N. UMAP 09 (User Modeling, Adaptation, and Personalization.
- Rate it Again: Increasing Recommendation Accuracy by User reRating.
  Amatriain, X. Pujol, J.M. Tintarev, N. Oliver, N. 2009 ACM RecSys
  Conference.
- Towards Time-Dependant Recommendation based on Implicit Feedback.

  Amatriain, X. Baltrunas, L. Context-aware Recommender Systems Workshop in 2009 ACM RecSys Conference.
- The Allosphere: An Immersive Multimedia Instrument for Scientific Data Discovery and Artistic Exploration Amatriain X., Kuchera-Morin J., Hollerer T., Pope S.T. in IEEE Multimedia, 16 (2). April, 2009
- Watching TV over an IP Network M. Cha, P. Rodriguez, J. Crowfort, S. Moon, X. Amatriain in 8th ACM SIGCOMM conference on Internet measurement
- Spectral processing Xavier Amatriain, Jordi Bonada, Alex Loscos, Xavier Serra in Zölzer U, editor. DAFX-Digital Audio Effects. Chichester: John Wiley & Sons; 2002

• Towards instrument segmentation for music content description a critical review of instrument classification techniques Herrera Boyer, Xavier Amatriain, Eloi Batlle, Xavier Serra in Proceedings of the 1st International Symposium on Music Information Retrieval

### Links

• Webpage: <a href="http://xavier.amatriain.net">http://xavier.amatriain.net</a>

• Twitter: @xamat

• Blog: <a href="https://amatriain.net/blog">https://amatriain.net/blog</a>

• LinkedIn: <u>xamatriain</u>

QuoraScholarSlideshare

### TEACHING AND LECTURING EXPERIENCE

## **Stanford University, Palo Alto, CA** — Computer Science, MBA Guest Lecturer

2015 Now

 Guest lecturer on several courses, both in Computer Science and Business schools. Lectured on Recommender Systems, and Machine Learning for Healthcare.

### **UC Berkeley, Berkeley, CA** — Fullstack Deep Learning Bootcamp Guest Lecturer

2018 2019

 Guest lecture at the Fullstack Deep Learning Bootcamp: Lessons learned from building practical deep learning systems (video available at https://www.youtube.com/watch?v=5yg08FxNB8c)

# **Frei Universitat of Bozen/Bolzano, Bolzano, Italy** — International Summer School on Recommender Systems Guest Lecturer

2017

 4 hour long guest lecture on Recommender Systems in Industry (slides available at <a href="https://pro.unibz.it/projects/schoolrecsys17/RecsysSummerSchool-XavierAmatriain.pdf">https://pro.unibz.it/projects/schoolrecsys17/RecsysSummerSchool-XavierAmatriain.pdf</a>)

## Machine Learning Summer School, Carnegie Mellon University, Pittsburgh, PA — Guest Lecturer

2014

 Presented a 4 hour long lecture introducing Recommender Systems to machine learning graduate students. Video available at <a href="https://youtu.be/bLhq63ygoU8">https://youtu.be/bLhq63ygoU8</a>)

#### ACM SIG KDD Conference, NY, NY - Tutorial

2014

Presented a 4 hour long tutorial entitled The Recommender System

# Machine Learning Summer School, Santa Cruz, CA — Guest Lecturer 2012

 Presented a 4 hour long lecture on practical approaches to Recommender Systems

## **EADA Business School, Barcelona, Spain** — International MBA Associate Professor, Technology

2010 2011

• Associate professor teaching Information Systems and Technology to prospective managers and business leaders enrolled in full or part-time MBAs in one of the world's top 100 Business Schools. The courses consisted in solving practical cases in which students had to make business decisions with a strong technological component and background.

## **Universitat Pompeu Fabra, Barcelona, Spain** — Technology Department Associate and Adjunct Professor

2007 2010 and 1995 2005

• Associate professor and main coordinator of the undergraduate courses on Software Engineering and Information Retrieval. During this time I also directed several student Undergrad, Master and PhD Thesis

## **UCSB, Santa Barbara, CA** — Media Art and Technology Department Lecturer

2005 2007

• Lecturer in the MAT Master Program. Teaching graduate courses on: Multimedia Engineering, Introduction to Programming, and Algorithmic Composition. Also directed 2 Master Thesis.

### **Hobbies**

- Runner, ultra-marathoner, and Ironman
- Amateur musician with two published LPs (back in the days)
- Reading and writing

### **User Guide for Me**

Xavier. Last updated October 2022

Welcome to my User Guide! I know that the faster we get to know each other and how we work, the better and stronger our relationship can be. If you have something similar or want to write it for me, I'd love to read it. This is a living document that will change as I learn more about myself and what can be useful for others. If you have questions that are not addressed herein, please share with me, and I will gladly incorporate them.

### 1. About me (summary)

If you are reading this you probably already know my name, and you have heard me talk about why I pronounce it "weird". Xavier is a name that is pronounced differently around the world (here is a fun video about it). If you want to get "my" pronunciation, here is a video I recorded. Friends and family will usually use the shorter version "Xavi", which many of you will recognize as a famous futbol player and now coach of FC Barcelona...Which brings me to where I am from! Yes, I am also from Barcelona. Born in the city of Barcelona, but grown in smaller towns in the outskirts.

For a much longer version of this about me, read the section About me. But, here are the quick facts:

- Lost my father when I was 6 and went through many changes and some hardships during childhood. Despite that I remember being a happy kid.
- Studied undergrad and PhD also in Barcelona
- Moved to Santa Barbara, CA to work at UCSB after my PhD
- Have been a college level professor both in Spain and the US
- Went back to Spain to start a research lab in Barcelona where I focused on Recommender Systems
- I ended up becoming a world expert in this area
- 4 years later decided to move back to the US, this time around to the Bay Area to work for Netflix
- I led the Netflix ML Algorithms team
- I left Netflix to lead engineering at Quora
- In 2017 I decided to join my cofounder on a huge mission and started Curai, a healthtech company that combines state of the art AI and medicine to provide an end-to-end primary care service.

### 2. My personality

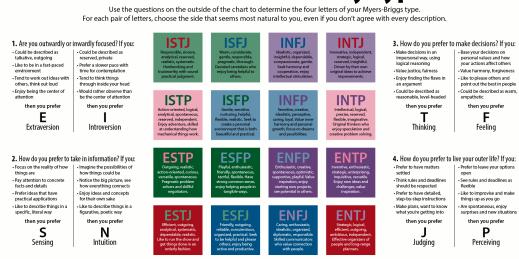
34% orange, 32% green, 24% blue, 10% gold (see <a href="here">here</a> for some context on the True Colors personality test)

As you can see, I am fairly balanced between orange and green, I am a bit blue, and not very gold. But, what does that mean? Translating the colors into attributes (see chart below), this means that I am pretty logical, adventurous, analytical (yet impulsive), efficient, and an independent thinker. I welcome change and variety. I am also somewhat creative, and enthusiastic (blue). I do not respect rules and authority, and I am not very organized or process driven.



When using the <a href="Myers-Briggs">Myers-Briggs</a> personality test I am usually ENTP, which according to the summary below means that I am "Inventive, enthusiastic, strategic, enterprising, inquisitive, versatile, enjoy new ideas and challenges, and value inspiration". That being said my E (Extraversion) is not very strong so I am somewhat of an INTP too. This personality is summarized as "intellectual, logical, precise, reserved, flexible, imaginative, original thinkers who enjoy speculation and creative process thinking. I feel those two personality types together do describe me pretty well in aggregate.

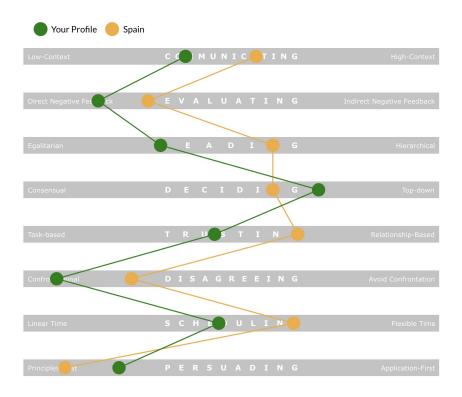
# What's Your Personality Type?

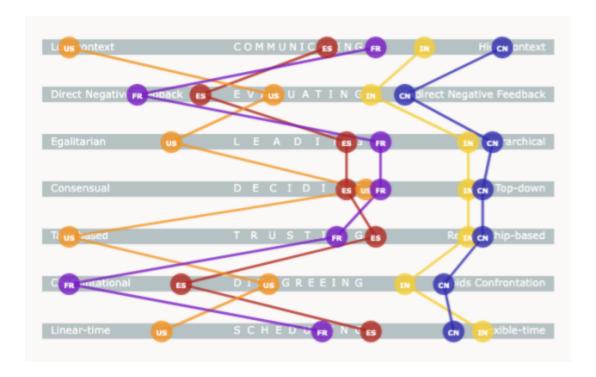


## 3. My culture

As you probably know by now, I am originally from Barcelona (Catalonia, Spain). Erin Meyer has a fascinating book entitled <u>The Culture Map</u>, where she maps the different cultures in the world in 8 different dimensions. She also has a tool where you can compare your own personality to other countries. Below are my results and the comparison to the "typical Spaniard". I also included another graph where you can compare different countries so you can get a sense of how I compare to a typical person in your country (e.g. "typical American").

As you can see, I am pretty strong on Direct Negative Feedback (but not if you compare me to a French person). Same goes for being "Confrontational". This makes sense in that I am from Catalonia, which although it is Spain, it is also pretty close to France, and has a unique culture. Note that although I seem to be quite "low context" I am definitely much higher context than average Americans. Most immigrants to America seem to become a little lower context than their original culture was, which makes sense since there are less things that can be "culturally assumed" when you immigrate to a different culture, particularly the American one, which is designed to be welcoming to immigrants.





## 4. My leadership style

I am passionate about leadership/management. I have read many books that have influenced my style (please recommend your favorites to me!), and I have also written about it. The post that probably best summarizes my leadership style is <a href="this one">this one</a> where I review some of the books that have influenced me the most in this aspect, and I extract some of the principles that guide my leadership style. Here are those principles:

- 1. Good leaders multiply people around them and make them better
- 2. Good leaders own everything they (and their teams) do, particularly when results are not good
- 3. As a leader you need to show radical candor by challenging AND caring. This applies mostly to people, but also to projects and situations.
- 4. You need to build strong alliances with managers, collaborators, and, especially, reports
- 5. Good leaders overcommunicate clarity, particularly when describing complex aspects such as culture or strategy.
- Good leaders measure what matters. Very importantly, they don't invert that construct and make whatever they can measure matter just because it can be measured.
- 7. Good leaders create purpose and meaning in their teams
- 8. Good leaders treat others (from other leaders to the last employee in the company) as adults

## 5. Decision making

Decision making is one of the most important aspects of any organization. No organization survives by making bad decisions. And, in order to make good decisions, you need to have the right decision making process and culture in place. While there are a lot of decision making frameworks out there (see <a href="RACI and DARE">RACI and DARE</a> for example), I am a fan of a simple approach using the **consultative model**. The consultative model pushes for the decision to be on only one person (called DRI in many organizations, but also the "R" RACI of "D" in DARE). This person is responsible for making the best possible decision. This usually includes **consulting** with others. The person making the decision is not only responsible for the decision itself, but also for executing on the decision. That means that this person needs to "bring along" (or align) some stakeholders even if that means for them to disagree and commit. More on this model on my blog post here.

## 6. Prioritization and planning



Another key aspect for any successful organization is to have clarity and alignment about the priorities. Priorities should also align at different levels. Ideally, the most junior engineer in the organization should understand how their priorities at any point in time align with those of the company as a whole. Of course, that connection between levels is not always trivial, and that is why managers need to make sure that it happens explicitly. Just as there is a hierarchy of goals that should trickle up and down the organization, there are also different levels of granularity in which to look at goals: yearly, quarterly, weekly, daily... Given this context:

- I am a strong believer in quarterly OKRs (and, yes, I have read a lot of critiques thrown at the OKR framework).
  - OKRs should include some form of prioritization (e.g. P0-P3 priorities or using the <u>MoSCoW</u> framework)
  - Quarterly OKRs should be ambitious. If a team/person hits 100% of their goals, it means those goals were not ambitious enough.
- I think it is really useful to think in terms of (1) Goals, (2) Areas, and (3) Projects

- Goals are distributed across areas. Decoupling goals into different areas is ideal, but not always possible.
- Projects are defined and executed so as to have a positive impact on goals

### • Regarding **projects**

- o Projects should not run for a long time
  - Ideally if a project runs longer than a quarter it should be broken into different projects (e.g. rebuild our Data Infrastructure v.0.1 and rebuild our Data Infrastructure v.0.2 in the next quarter)
- Projects should have a clear hypothesis (or set of hypotheses) and a set of metrics to measure it/them
- I believe in writing short and clear documents to align people at the start of the project. Those documents should not try to include everything and remove all the uncertainty around the project, but rather align stakeholders around:
  - Hypothesis and metrics
  - Project team and DRI
  - Priorities and constraints (including must-haves and will not do)
  - Timelines
- It is well known that a strong predictor for project (and organizational) success is the ability to break deliverables into "small batches" (see <u>Accelerate</u> book). I can't disagree with that: making deliverables that take at most a few weeks to finish is key to being successful. One of the reasons for that is that the smaller the deliverable, the more certain you can be about what needs to be done and how long it will take.
- Because of all of the above, it should not be surprising that I am also a strong believer in agile planning (with lowercase a). That being said, I do not believe in heavy Agile processes (such as Scrum). In general, I do not believe in taking ANY process and blindly following it without taking into account the context.

### 7. Communication

- I am available almost any time on short notice for anything urgent/important.
   Having fluid communication channels with my team is very high on my list of priorities.
- I am very bad with phone calls. Please text me or Slack DM me if you need anything urgent.
- I am pretty good at keeping up with Slack group messages, but I don't expect
  anything urgent for me personally to come through a Slack group message. That
  being said, please @ me if you expect me to pay special attention to a Slack
  message.
- I try to keep up with email, but in my recent positions, the signal to noise ratio of emails has been pretty low. If there is an important email that I should absolutely read, please Slack/message me about it.
- Don't feel bad or apologize when sending something to me out of normal business hours. It is on me to decide whether that message is urgent or can wait until the next day. Similarly, I might send you messages at odd hours. I don't

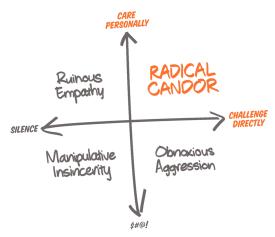
- expect an immediate response though, I am just sending you the message at a time that is convenient for me while not assuming that I know what times are convenient for you.
- If you are unsure about the urgency or importance of a message or request from me, please ask! Do not assume anything just because it came from me at a given moment. "Got it. When do you need this?" is an excellent answer to a request.
- Related, because I am more "high context" than most people in the US, I have received feedback in the past that I am sometimes not concrete enough with my requests or my opinions. E.g. people will say that a comment from me was unclear whether it was a critique, a suggestion, or simply an opinion. I am aware of this, and I try to avoid it by being very explicit when something is one thing or the other. If I am not being explicit, it is safe to assume that I want you to fill in the dots and treat it as you see fit. And, as always, when in doubt simply ask!
- I am a fan of clarifying things in writing. I am a pretty big believer of "the memo culture" in which important things are written both before and after a meeting. For example, it is good to write the agenda and even prior reading before an important meeting. It is also good to write the action items and even a summary after the meeting. Writing things down always helps with clarity and alignment.

### 8. Context

- Context is extremely important to make anything work. The same approach that
  was extremely successful somewhere at some point may fail here for some
  reason. The same words that work wonderfully to get one person pumped up
  might crush someone else. I wrote about the importance of culture in providing
  context in this post about the Netflix culture.
- Please help me gather as much context as possible regarding the company, the team, and yourself. Any pointer to e.g. past projects or past 360 feedback will be appreciated.
- Because I appreciate how important context is, you won't hear me say something like "we are going to do this in this way because it worked great for us at Netflix".
   However, I have learnt in my professional life that experience does matter. I have been able to tackle problems where teams were stuck for months simply because I had seen similar problems before. Help me identify similarities and differences between situations so that we can look for the optimal solution.
- Similarly, I won't accept people saying "don't worry about trying this, we already tried before and it didn't work". The world is full of extremely disruptive technologies and ideas that did not work at all in the first try. Even neural networks were discarded at some point as "not working". If something did not work before, help me understand why it didn't work. Was it a fundamental problem with the main hypothesis? Some of the assumptions were wrong? The execution was poor? There was a bug? We did not measure the right thing?

### 9. Feedback and trust

• I tend to give very direct feedback, and I appreciate the same from you. More concretely, I am a fan of and try to practice <u>Radical Candor</u>. According to this framework, in order to give good feedback, you need to be candid, but also care.



- know about the SBI framework for feedback, but I don't like it. In fact, while I know that most people will encourage you to lead your feedback with concrete examples, I have found this practice usually derails the conversation. Concrete examples are hard to describe in detail. People will then argue (or disagree) over those details and lose the forest for the trees. And, ultimately, if people think you are rude, it doesn't matter if you agree with their assessment. That is what people think about you, so you better change. Arguing about whether you were or you weren't rude in that meeting is beyond the point. That being said, illustrating feedback with examples is useful. I can tell you something like "People think that your behavior is rude, and I remember I had that same feeling in that meeting." Similarly, I am not a fan of "on the spot feedback" unless it is to point to a specific example of a piece of feedback I gave you. E.g. Right after a meeting I can point to you "Remember we talked about you being rude sometimes. I think you just did this in this meeting."
- I default to trust. If you are where you are (at your given role and position and company) I assume you are good at it. You don't need to prove anything to me since I will assume you are great. That being said, I can lose trust in you if over time you fail to deliver on my expectations. I will tell you if that is the case.
- Because of my "assumption of excellence" I know that I sometimes forget to appreciate people's accomplishments and successes. Please tell me if that is the case. If you did something awesome and I have not appreciated it, please bring it to my attention.
- Because I default to trust, I trust you have the best intentions when giving me feedback. I also know giving feedback is hard for most people. So, I will welcome your feedback no matter how well structured it is. Please just tell me how I can do better.

## 10. Meetings

- Meetings are an essential tool for getting teams and projects to work.
- Meetings are often inefficient and it is on everyone to avoid this pitfall. Most of all, it is on the meeting organizer to make them efficient.
- If you organize a meeting and call me to it I will expect:
  - A clearly stated goal for the meeting
  - An agenda of what is going to happen in the meeting
  - Any pre-required reading

- An explanation of what is expected from me in the meeting
- A follow up with some takeaways/action items from the meeting
- If a meeting does not have all the above, I'd rather not have the meeting or call it something different (e.g. lunch, social time, or let's have a beer :-).
- If I call a meeting, I will strive to have all the above. If I don't, please call me on it.
- As a rule of thumb, I think the higher the cost of the meeting (measured as amount of people times their salary), the more it should have been prepared
- If a meeting is getting derailed, I expect the DRI to get it back on track, but I can help do that if needed

### 10.1. 1:1s

I am a strong believer in 1:1s. I think they are a great tool to keep in sync and build trust. One on ones are different from "normal" meetings in that they can really be tailored to whatever the two people need out of them. My ideal 1:1 has a clear agenda that is mostly set by the report (or the person who is lower in the company hierarchy). However, it also leaves room for improvised "chatter". I have found the unstructured part of 1:1s essential not only to build trust, but also to stumble into important issues at a personal or organizational level. Forcing a "check in" and a "check out" from the 1:1 is a good way to make this happen while still keeping somewhat of a structure.

All that being said, I have worked with people who thought 1:1s were a waste of time, and, of course, turned them into a waste of time. Let's not do that. If you don't get value out of our 1:1s, let's cancel them. If you think they are too frequent, let's have them less frequently. And, if one week you have more important things to do, let's cancel that one instance too.

### 10.2. Office hours

Whenever 1:1s don't scale, I have also resorted to using office hours so that people from a larger audience can sign up and have an occasional 1:1 with me. To be fair though, I have never managed to get these to work. Office hours tend to always attract the same people, and many of them will come for mostly personal advice (e.g. career growth). While valuable, these tend to be very one directional unless I reach out and encourage people directly to sign up, which I will do if and when I do office hours.

So, I might end up doing office hours if needed, but this will not be my initial inclination when starting a role.

## 11. My Hobbies

I am an avid runner. While I started running pretty late in my life, I have currently ran <u>66</u> <u>races</u>, including 15 marathons, an Ironman, and a few ultramarathons. I am convinced that I owe some of my success in life to running. I have learned many lessons through running, some of which are summarized in <u>this post</u> that became so popular that it was even reposted by <u>Inc Magazine</u>.

My other big hobby is music. I was very much into music all my life. I started a couple of bands in high school. The most popular one was Maijalas. We recorded and published a record, performed in front of crowds of up to 40 thousand people, and unfortunately dismantled when we were recording our second album. You can listen to some of our songs on <a href="may.example.com/my-website">my-website</a>. Music drove some of the early career decisions for me: I studied Telecommunications Engineering because, among other things, it had a class on Acoustics and Music Technology. I also did my <a href="may.example.com/php-php-">Php</a> on applications of software and technology to music and audio, and continued doing research and publications in that space for some years. At this point I am a very mediocre piano man, but I do enjoy playing and singing along at the slightest chance.

Finally, I also love reading and writing. I have always read quite a lot. When I was a kid I was ALWAYS reading, and even as a teenager I did crazy things like reading Joyce's Ulysses (for real). More recently I got into audiobooks, so I can even do two of my favorite activities, running and "reading", at once! At this point I mostly read non fiction that somehow connects to my work, even if tangentially. I really enjoy books on management (see my recommendations here), but also books like Kahneman's Noise, Harari's Sapiens, or Taleb's Antifragile (adding some popular examples here so you get an idea, but happy to dive into lesser known recommendations if you are for it!). I also try to throw in some novels every now and then. I love to discover new and great writers. As an example, I would recommend the very recent The Boys, and a couple of Spanish writers: Ana Merino, who I had the pleasure to meet in person, and Javier Marias, who recently left us, and is one of my favorite modern writers.

## 12. About me (the longer version)

If you have made it this far you already know A LOT about me. However, here is a longer account about my personal story, including important events that have shaped who I am today.

I currently live in Los Gatos, CA with my wife of 25 years Natalia. We have two children. Aitor, who has already graduated from college (USC double major in CS and Physics) and is working for Goldman Sachs in NYC. Adriana is studying nursing at the University of Iowa. But, let's take a step back so I can walk you through some of the events in my life.

While my childhood had different traumatic events, such as the death of my father when I was only 6, I still think I had quite a happy childhood. My therapist has lots of things to say about this, and I will be happy to talk more about this part of my life with you in private :-). During my childhood, I changed schools very often, and attended all kinds of schools, from public schools to very religious private ones. One of the most "exotic" things I did during those years is to spend a full school year studying 6th grade in Twin Falls, Idaho, with my extended family.

I started working very early on. My first job, as an English teacher, was at age 13. After that, and throughout my studies, I worked as a teacher, waiter, and even construction worker.

I studied my undergrad in "Telecommunications Engineering" (roughly equivalent to ECE in the US) because it was considered tough, but also because it combined two of my passions at that point in my life: technology and music (there was a single course on Acoustics and Music in the 4th year). In fact, at that age I was a musician, and I had recorded an album with my rock band Maijalas. I got married with my wife Natalia during undergrad. That was pretty unusual in Spain since people tend to wait until they are much older to get married.

I did my "end of studies project" at a different university (UPF) that was at that time barely starting a Technology department. I worked on a new language for music synthesis. That work, which involved a lot of C++ programming, had a huge impact on me. While I immediately after started working as a Electrical Engineer at a firm that built "smart buildings" and was owned by a family member, I was ecstatic when Xavier Serra asked me if I wanted to do my PhD combining computer science, signal processing, and music.

My PhD involved a lot of different projects. I was involved in European projects with different universities, I published and attended conferences, and I got to lead the development of an award-winning open source framework (CLAM). In parallel, and because the young Technology Department needed teachers, I lectured on topics ranging from Data Structures and Database programming to Signal Processing or Information Retrieval. All of it was a blast, and I learned a ton. Up until this day I feel very proud of many things we did during that time that involved advanced C++ programming or groundbreaking approaches to teaching Software Engineering to CS students by e.g. having them do end-to-end software development during their labs while experimenting with test-driven development and design patterns.

By the time I finished my PhD I had my two children, Aitor, who is currently 23 and lives in NYC working for Goldman Sachs, and Adriana, who is 19 and is studying nursery at the University of Iowa. I should have mentioned that I married my wife Natalia before finishing my undergrad, which is not very common in Spain. Same goes for having kids at that young age. A pattern in my life is probably making bold, not very common, moves, I guess. Which brings me to the next bold move...

After my PhD the whole family moved to Santa Barbara where I got a position at UCSB. While the typical thing after a PhD is to do a Postdoc, this was pretty different. It was a position as Research Director in the Research ladder (not faculty). I lead a few projects and areas, but most importantly the Allosphere project.

We only spent a couple of years in Santa Barbara because I had a unique opportunity to go back to Barcelona and help start a research lab for one of the largest Spanish multinational companies: <u>Telefonica</u>. It was a very interesting and ambitious project to bring back Spanish researchers from around the world to start a lab working on bleeding edge research in different technology areas. I would be in charge of building a research

team around the hot area of Recommender Systems. I had already worked a bit in that space, but focusing on this topic right around the time of the famous Netflix Prize was really exciting. For the following 4 years I did a lot of interesting research, went to a lot of conferences, published a lot of papers, and got to work with a bunch of brilliant people. As an example, some of my interns have gone on to become leaders in this space (e.g. Neal Lathia and Linas Baltrunas). Among the many things I did, I organized the 2010 Recsvs conference in Barcelona during a countrywide general strike. Fun times.

I decided that as much as I liked research, I wanted to have an impact in the "real world". At Telefonica all our projects never got past the basic prototype because we had no way to convince business units that our "fancy" research was worth their investment efforts when they could just go out and buy something (worse but in their mind similar) from a 3rd party vendor. Where would I find companies working on bleeding edge but impactful technology? The Silicon Valley, obviously! I decided I needed to interview with my favorite companies at that time. I interviewed with Twitter, LinkedIn, Google, and Netflix. I had contacts at all those companies. Interestingly, I had met my contact at Netflix, someone who would later be my boss, during a party ship event I had organized in the Barcelona port during the Recsys conference. After a relatively long process that involved a few trips to the Bay Area, I ended up getting an offer from Netflix that I could not refuse. I accepted. We packed our stuff, this time for real since we knew it was going to be for a longer time, and we moved to the Bay Area.

At Netflix I was handed a small team of 4 people to lead. The team was called Dynamic Store because of the idea that it was going to recreate the idea of "Video Store" but in a way that was "dynamic" and personalized. I was surprised at the very little machine learning there was at Netflix at that time. The team only had a really strong engineer. I ended up having to let go of the other three and rebuild the team from scratch. We changed the name of the team to PVR (Personalized Video Ranker), which was the first ML algorithm that we developed. This algorithm was hugely successful and revolutionary at Netflix, and it is still used for much of its personalization. I won't go into the details of what the algorithm did, but I have talked about it publicly on many occasions (see this blog post e.g. ). The scope of the team grew as we continued adding algorithms to the product, and I ended up renaming it as AE (Algorithms Engineering). The team continued to grow and be successful way after I left Netflix about 4 years later.

Why would I leave Netflix at a point when the company was being hugely successful and when it is well known that it was paying top of market salary? I am glad you ask that question, because my wife asks me that often. I usually mention a few reasons: (1) I felt like most of the fun work of starting the team and getting Netflix on a path to use ML algorithms in an impactful way was done. There was, obviously, a lot of room for improvement, but I felt like we had come 80% of the way where we could be. (2) As much as I liked Netflix' product and culture, I wasn't super aligned with the mission of making people watch more TV. You could argue that people are going to watch it anyway (or worse, they are going to waste time on TikTok), so they might just as well watch Netflix, but the reality is that we would joke about creating couch potatoes internally. (3) At the time I left, Netflix had already pivoted into being a "content" company. Product and technology was still important, especially when compared to where the company is

today, but it was very clear that the trend was there. I wasn't envisioning much focus being put on product and tech innovation in the future.

Now, of course, the real reason I left is because I had a much more exciting opportunity in front of me. I was offered to lead the whole engineering team at <a href="Quora">Quora</a>. I would report to the very well-known founder and CEO of Quora <a href="Adam d'Angelo">Adam d'Angelo</a> and work on an amazing mission to grow and share the world's knowledge. That really resonated with me. I have always been a fan of open knowledge, and I could very well align with Adam's vision of creating an even better Wikipedia based on questions and answers, where people would not only share the knowledge that is in their heads, but also engage in constructive discussions around them. A vision of the Internet that is very different from what we have right now, and one that, again, I was happy to work towards.

At Quora I did quite a lot of stuff in the only 2.5 years I led engineering. I feel like we upped our game in ML/AI, hired very strong engineers and leaders from top companies, and set up the foundations to make Quora profitable at some point. It was lots of fun, and I was not planning on leaving so quickly, but... I got an opportunity I could not say no to: starting my own startup!

I connected to my cofounder Neal through his father, the well known Vinod Khosla, who I had met previously on a couple of occasions. Neal was thinking of starting another healthcare startup after having been through YC with his first one. The idea was vague, but mostly around using AI/ML to build some version of a "digital doctor" to increase access to high quality yet very affordable healthcare around the world. The vision was bold, and, to be honest, I had no prior experience in healthcare. But, I was drawn to the huge mission, and the challenge. I started talking to him mostly thinking that I could advise on the ML algorithms, but after a few months of conversations it was clear that I could not pass on the opportunity.

We started <u>Curai</u> (with the original name of Dr.Assist) in 2017. Since then we have built an end-to-end virtual primary care service where we combine state-of-the-art AI with a top-notch medical team. There is a lot of technology and research behind Curai (read more here [LINK]), but I am also proud of the amazing team we have attracted and the culture we have built.