Who has it better in the job market? The one that knows a lot (body: arms wide) about a little (body: pinch), or the one that knows a little (body: pinch) about a lot (body: arms wide)? By the way, the type of people with the skill sets I just mentioned have names. The former is a generalist. The latter is a specialist.

While not a rule, a manager of a consulting company with an MBA might be a generalist, and a scientist in a national lab with a PhD might be a specialist (-- make clear purpose/intention of this sentence? --). The debate between the merits of a generalist and specialist is age-old. And both sides seem to have an argument.

The thing is, if you look online for this argument, you’ll find several articles argue for the importance of the generalists in today’s fast-paced and globalized world, with the core argument being generalists can see the bigger picture, adapt to a changing environment, and can promote team building. But there aren’t too many articles making the case for specialists. Can’t specialists (body: hands in the air) have these positive qualities too, even if they don't have actual management and leadership training that instills these qualities? As I see it, there are 3 different ways specialists can develop these strong qualities associated with a generalist.

First(body: ), a specialist can understand the big picture of the work they are doing. Many publications, particularly those in computer science, are judged by novelty. Knowing the novelty of a solution involves constant assessments of needs in society. Grant proposals require a broader impact section, and scientists must have a way to come up with good cases for their research, otherwise they will not get funded to do what they are doing.

Second, (body: ), don't know broad range of skill sets, but specialists often have this unique ability to learn how to learn, allowing them to pick up a broad skill set if needed. The act of doing lab experiments to find a new virus requires discovery process requires learning new things as you go. Coming up with new algorithms and implementing them requires one to pick up technologies and skill sets in an uncertain environment where several technologies abound.

Third(body: ), specialists are already team-builders. Cross-lab collaborations are a big part of working together in research. It's often up to the scientists to seek out these collaborations, and this involves finding a way to work as a team. The training of many specialists (notably PhDs) often involves some aspect of teaching undergraduate students. This involves leading students to collectively learn (by making sure to answer all questions), planning and overseeing group projects. These skills can be transferred to leadership skills.

Fourth, Motivation

(Pause)

Generalists may be in high-demand due to their abilities to have a broad range(body: spread out hands) of skill sets applicable in many domains. Yet, the viewpoint that various articles suggest is that only they are well-equipped to take on leadership roles, and this viewpoint sometimes implicitly suggests that specialists aren’t. If one considers the skills that a specialist must have to succeed in her job, this viewpoint may be a bit extreme. A specialist can learn to adapt (body: finger1), understand broader impact(body: finger2), and build teams(body:finger3) too.

Perhaps their skills won't be as refined as managers, but they can learn on their own and pick up skills, if they worked hard at it to get practical, real-world experience doing it. In my opinion, it's a matter of realizing how the skills a scientist or engineer already has can be transferred (body: move hand left to right) in the context of managerial positions. Once realized, it’s then a matter of practicing and engaging oneself in such leadership positions, and thriving through energy that specialists so often have.

Who are tomorrow’s leaders in the world? The MBA from an Ivy League School? Or the PhD from a top-tier engineering school?

Looking at the vast articles, statistics show that all CEOs have an MBA from an Ivy League school. And I agree. They are trained to have the skills to be manage and be leaders. They know the right people. I personally think it is who you know, and not just what you know.

The one that knows a lot about a little, or the one that knows a little about a lot? By the way, the type of people with the skill sets I just mentioned have names. The former is a generalist. The latter is a specialist.

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TODO: make the above more intentional.

1. figure out how to start
2. figure how texplain the problem

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Second, (body: ), don't know broad range of skill sets, but specialists often have this unique ability to learn how to learn, allowing them to pick up a broad skill set if needed. The act of doing lab experiments to find a new virus requires discovery process that requires learning new things as you go. The discovery process involves forming a hypothesis, testing the hypothesis, designing conclusions. In each part, the scientist must navigate unknowns to come across a conclusion. Doing this continuously doesn’t necessarily increase the specialist. But, behind the scenes, what it’s truly doing is enhancing the ability to pick up new knowledge on the fly, increasing their abilities to infer knowledge from one piece of knowledge. If a specialist truly wanted to and took the effort to, he or she could become a generalist using their strengths as a specialist.

Coming up with new algorithms and implementing them requires one to pick up technologies and skill sets in an uncertain environment where several technologies abound.

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1. Intro :

2.

1. Generalists are good because:

a. they can tackle several problems and people have a broad range of info

b. agile in a job market that’s changing, demands are changing

c. world is becoming more global

1. Specialists are good because:

a. only person that knows a particular area

b. can ask lots of money since the position is hard to fill

c. can solve problems other people can’t

3.