

Is Your Career Future-Proof?

1. Congratulations on reaching a pivotal milestone of your academic journey. It has taken on average three-quarter of your life studying to get here. You should be very proud of yourselves.
2. For my speech today, I would like to touch on the topic of “new technology”, its impact on the work-place, and why you need to “future-proof: your career. I will use the term “technology” to mean the rapid advancement of automation and artificial intelligence or AI, enabled by the digital revolution. Some called this the 4th Industrial Revolution.
3. Some of you may know of this company called Kodak. Founded in 1892 and for about 100 years, it was the leader in manufacturing photographic films. We now take pictures using our mobile phones. In those times, you capture images only on films. At its peak, Kodak is a global leader and employed some 145,000 workers. However by early 2000’s, it was struggling for survival. Within a short span of about fifteen years, film-based photography became obsolete. It was completely subverted by digital technology. Kodak eventually filed for bankruptcy in 2012.

The cruel irony is that Kodak was the inventor of digital photography in the 1970’s. However it never fully exploited digital technology. What can be more painful than to be destroyed by your own invention.

4. Future technology-led disruptions will come faster and more furious. The catalyst is digitalisation or data-driven revolution. Financial services too is not immune to this.
 - MAS is actively promoting e-payments. As a developed country, Singapore has been slow in this space. Since then, we have launched many initiatives to close the gap. Perhaps I can pose a challenge to you – for one month don’t use cash for your purchases? We can do person to person payments via PayNow. Many eating outlets accept ApplePay or SamsungPay. Grab & Uber accept e-payments. Wet markets and hawker centres still prefer cash, but we can shop at 7-11, NTUC or Cold Storage. I hope S’pore Poly accepts only e-payments. So my guess is the challenge is not too difficult. Except for Chinese New Year ang-pows where cash is still preferred.
 - If Singapore is cash-free, the country will be transformed. MAS can stop printing currency which will save substantial cost for the government. There will be no need for ATMs. Bank branches will be scaled down. This scenario is not far-fetch. Norway stated its intent to become a cash-free society by 2030. By the way, do you know how people in China can tell if you are a tourist? When you use cash for payments. Everyone there use AliPay or Wechat Pay. I was told even beggars accept only e-payments.
5. What about other areas of financial services?

- For customer-facing functions, we are beginning to see Chatbots and RoboAdvisors servicing clients. These are robots with machine learning capabilities who can advise you on banking services or the best investment choices.
 - In a recent Economist article, a Chinese insurance company call Ping An thinks it can spot dishonesty using AI. It monitors facial expressions of customers and uses AI to pin-point those that requires further scrutiny.
 - Industry is also leveraging API (Application Programme Interface). What is API? APIs connect IT applications across multiple organisations. To illustrate, a third-party app on your mobile phone can consolidate all your different bank accounts, investments, CPF accounts, insurance policies onto a single screen, and update them real time.
 - At a personal level, the next time you attend a job interview, don't be surprised if your interviewer knows more about your personality than you think. Your potential employer could build a psychometric profile of you by harvesting data from social media. So be careful what you post on social media.
6. All these mean one thing for you in the work-place – your greatest competitor is not your peers, but machines. If you work like machines, you could be replaced by machines. A recent McKinsey study suggests that half the activities people do today could be automated, suggesting substantial workplace transformation. The potential impact varies by occupation, but routine activities lend themselves more to automation. History tells us that while technology can be a big disruptor to jobs and industry, it has also created new jobs and industries. But you must position yourself well for these new jobs.
7. So how do you do this? I wish I have ready answers, but I don't. However, there are some things we can do to lessen the risk of becoming irrelevant in the work-place.
- a) Be technology conversant
- How important is this? To assess this, transport yourself back to the early 1990s - the dawn of the internet revolution and ask yourself if you need to worry about its impact. Fast forward to present day, can you imagine anyone in the workplace not conversant with the internet? We are now at a similar inflection point with regard to technology.
- As a global financial centre, it is important that Singapore build capacity and competencies in technology areas.
- DPM Tharman shared this in February this year:
- FIs need to upgrade the skills of their staff in data analytics. MAS launched a \$27 million AI and Data Analytics grant scheme last year.

- The Institute of Banking and Finance or IBF is offering professionals new learning modules on data science, human-centric design, agile thinking and cyber security.
- MAS is working with institute of higher learning to scale up efforts to build the talent pipeline of emerging technologies. This includes more courses in FinTech specialisations. For example, MAS partnered with local polytechnics in the PolyFinTech 100 initiative, and has equipped more than 1500 students with skillsets relevant to FinTech.

My suggestion is that minimally you must have basic skills in programming, data analytics and IT. In some countries, programming as a subject has been made compulsory in schools. Just like now you are familiar with internet terms like “URL”, “HTML”, “IP address”, “blogs”. You should now also know terms like “Python”, “chatbots”, “data mining”, “machine intelligence” and “blockchain”.

b) Lifelong learning

A degree used to be sufficient qualification for long term job security. This is no longer true. Rapid advancement of technology means disruptions is going to occur more often. Thus instances of your job being disrupted will be higher. You will continuously need to keep ahead of the curve by upskilling and reskilling.

Minister Ong Ye Kung announced that beyond the formal school system, the government has embarked on a national movement called SkillsFuture, urging all Singaporeans to participate in lifelong learning. The government has rolled out a national training programme called SkillsFuture for Digital Workforce, to equip all Singaporeans with skills to work in a digitally enabled environment.

At MAS, we started an initiative where we want two-third of our staff to be analytics-trained in 18 months. Everyone must have level one competency in how to collect and organise data, do data analytics and data visualisation.

The key message is that while a good degree can give you a head-start, you must embrace life-long learning to navigate technological disruptions and stay relevant.

8. Let me move on to my next part of my speech. Having the relevant technical skills alone may not sufficient. Over the long term, how do you keep yourself motivated. Let me share some insights from the survival guide in the workplace.

a) Make work a purpose

When looking for a career, do you go for jobs that offer the most attractive pay, or one that gives you a sense of purpose, but pay less? If your purpose is pay, I have bad news.

Many people equate pay with happiness. Research suggests that having a higher income does affect happiness, but only up to a point. Beyond it you won't be significantly happier. You may be familiar with the Maslow's hierarchy of needs. Beyond your basic needs, people look for psychological and self-fulfilment needs which are not about having more money.

A Financial Times article reported that a City & Guilds survey found that the highest level of job satisfaction was experienced by florists and gardeners (87%), and the lowest satisfaction was experienced by bankers (44%). It seems that having a high degree of control over one's work and seeing the results of those efforts have big impact on happiness. I am not suggesting that you pursue a career in gardening but you know what I mean.

If your work has a sense of purpose, it is also likely that you will find the energy to pursue it. Purpose is what keeps you going when the going is tough.

In my current role I meet many candidates applying to join the MAS. At the interviews, I am most interested to uncover evidence, if any, of their passion for public policy work. Some came from humble background and understood the impact of good government policy. They have a passion to impact others by joining the MAS. They have a purpose for joining the MAS.

b) Don't walk alone

You may have heard of the saying: "If you want to go fast, go alone. If you want to go far, go together". Or "It is not what you know, but whom you know".

Two persons working together is always better than they are divided. The multiplying effect of team-work surpasses that of an individual working harder. We call it: $1+1=3$. In many organisations, including the MAS, teamwork is part of their core values.

A friend once told me this – "It doesn't matter how clever you are, it is about whether you can work well with people." At MAS, I have come across staff who are brilliant in their field of work, but find challenges working in teams. You will also find that in both your work and personal life, a broad network of friends and contacts can help you connect ideas, uncover opportunities and keep you updated on developments.

c) Health comes first

If you want to do well in your work, you must have good health. When you start your career, often time there is pressure to be among the first to be in the office, to work the longest days and be able to multi-task. You run the risk of burning-out in no time.

You may have heard of an investment banking intern working for a major US investment bank who died after working 72 hours straight. Upon learning this, another global investment bank set new rules to require staff to go home before

midnight, and don't come back to office before 7am. I am not sure if this is helpful as it is still a punishing 17-hour workday.

You have to personally take charge of your health. Everyone's threshold for stress is different. So don't succumb to peer pressure when you see colleagues working longer hours than you are able to cope with. Find your own threshold.

9. In closing, I would like to share this poem by Robert Frost, who is probably one of the most famous American poets. It is called "The Road Not Taken".

I shall be telling this with a sigh
Somewhere ages and ages hence;
Two roads diverged in a wood, and I,
I took the one less travelled by,
And that has made all the difference

At a cross-road, when faced with a difficult decision of taking the "safe" route that others have taken before, or an unbeaten path, the subject in the poem took the "road less travelled by". The poet feels that making original and independent choices, makes life rewarding.

I wish you all success in your future endeavours.

