



Australian Government

Chief Scientist

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The Finkel Files: Episodes from my younger years

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MELBOURNE

So, graduates, tell me: “What do you want to do next?”

Your teachers have asked. Your friends have asked. Your parents have asked.

No doubt you’ve also asked yourself.

It’s the standard question for anyone at the end of their degree.

Some of you have clear plans and can answer the question with confidence.

Others have interests and aspirations but no definite pathway in mind for the future.

When I was a Monash engineering graduate, I was part of the second group. My pathway to the future was not visible to me.

In fact, throughout my entire career, I have never known my next step in advance.

Instead, I have seen life as a series of doors and have strived to keep as many open as possible. And when opportunities came knocking, I jumped at them.

This approach has enabled me to pivot from one opportunity to the next—from electrical engineer to neuroscientist, businessman to magazine publisher, university chancellor to Australia’s Chief Scientist.

But I admit it. There has been no grand strategy. I have simply seen the light and walked through those doors of opportunity.

Today, I’d like to talk to you about three doors in particular. The first relates to study. The second to work. And the third to love.

Together, I will call them *The Finkel Files: Episodes From My Younger Years*.

Relax, I can assure you it will be a lot shorter than *The Lord of the Rings*.

And, unlike most trilogies, the third episode is the best so it’s worth watching to the end.

Episode One: Study

The first episode sees me sitting at my school desk.

There’s an application form in front of me. It’s titled “University Admission Preferences”.

I look pensive.

Growing up, I had always thought I wanted to be a doctor.

But with the application deadline looming, I started to have second thoughts.

I was interested in subjects like physics and maths. And I liked working with electronics and technology.

With the application in front of me the reality of life as a doctor loomed large.

As an 18 year old, I could suddenly see that I didn't have the right personality to be taking care of sick people, and 'old' people, night and day.

So I decided at the last minute to write *engineering* rather than *medicine* as my first preference.

It was the first of many times in my life when I made a decision despite uncertainty. I aimed to do two things. First, to follow a passion. Second, to keep open those doors of opportunity.

I did the same four years later when I decided to do a PhD.

I simply didn't know what I wanted to do with myself after I graduated, but I was smart enough to know that if I didn't do it then, I would never return to do a PhD later.

And I did the same five years after that, when I decided to move to Canberra to do post-doctoral research at the ANU. If I didn't test the waters of a research career I knew I wouldn't come back to try it in future.

At no stage over that decade did I have a vision for my future. I just walked through those doors to fascinating opportunities.

In the process, I ended up developing expertise in both electrical engineering and neuroscience and, although I didn't know it at the time, this would provide the foundation of my future business success.

The lesson is that you shouldn't sit around waiting for the perfect offer.

If you get a good opportunity that you might enjoy and that could open up new possibilities, seize it.

As Confucius said, "Better a diamond with a flaw than a pebble without."

Episode Two: Work

Episode two of *The Finkel Files* opens with the camera panning out from a man in his late 20s.

He's a post-doctoral research fellow at the ANU and he looks dashing in his lab coat.

That's one of my colleagues.

I'm on the other side of the room, talking to a man by the name of Paul Adams.

Paul is a world-famous neuroscientist. He's visiting Australia on a study tour from the US.

After a few minutes, Paul looks over my shoulder and asks about the piece of equipment behind me.

I explain that I'm building a special form of a voltage clamp—an instrument that measures the tiny electrical currents by which our brain cells communicate.

Paul's eyes widen. He asks, "Wow, could I get one of those?"

Now, I could've responded with "Sorry, this is the only one I've got."

All too often, that's how people answer when opportunity knocks. Some can't see the door. Others see only a crack. Others are too scared to step through.

As for me, it was a lightbulb moment. I saw a big, wide, open door and I jumped through.

I saw an opportunity for my invention to be used by scientists around the world, helping to push the boundaries of medical research.

So I decided to leave academia and start my own business.

What's the lesson? Chance comes to the prepared mind.

It was serendipitous that Paul Adams visited my lab at the ANU.

But if I hadn't been doing things in an area that I was interested in, if I hadn't been honing my skills, if I hadn't always been striving to do better, then he wouldn't have asked about the equipment behind me.

And if I hadn't cultivated a habit of seeing opportunities and then seizing them with both hands, I wouldn't have used his question as a launching pad for a successful enterprise.

2000 years ago, the Roman philosopher Seneca said, "Luck is what happens when preparation meets opportunity."

It's just as true today.

Episode Three: Love

The final instalment of *The Finkel Files* is upon us. And, as promised, I will speak to you of love.

My wife, Elizabeth, is in the audience, and I see an opportunity to make her blush!

Episode Three opens with a young couple smiling in front of the Golden Gate Bridge.

The beautiful woman in the frame has just moved to the United States to do post-doctoral research. The curly-haired man next to her is me.

After deciding to leave academia, I had planned to start my new company in Australia.

It was an easier proposition than setting up overseas.

But when Elizabeth was invited to San Francisco to continue her research career, I saw it as an opportunity.

I changed my plans. I followed my heart. We moved to The City by the Bay.

It was the start of two long and beautiful relationships.

The first lasted 21 years and ended when I sold my company, Axon Instruments.

The second is still going, stronger than ever.

Yes, you're thinking, but what's your message, Alan?

Sometimes the world will send you in a certain direction.

You can fight it. You can struggle mightily. Or you can embrace it and forge ahead.

Be confident even if you don't know where you are going. For the future belongs—as it always has—to those who have the confidence to take risks.

In the words of the poet Ralph Waldo Emerson, "All life is an experiment. The more experiments you make, the better."

Your Scripts

Well, that brings us to the end of *The Finkel Files*. And I will use this opportunity to pivot to *your* movie.

As I mentioned earlier, some of you might already have a script outline for your careers.

You might be like John Glenn. He was an engineering student who wanted to be an astronaut. He worked hard and became the first American to orbit the Earth in 1962.

Back on Earth, many of my fellow Monash University students knew they wanted to work as electrical engineers. They have been successful. They have had immensely satisfying careers doing exactly what they had planned.

But many of you won't have the storyline all worked out. You might not have written the script for what will happen in the next episode, let alone at the end of the movie.

Whichever path you identify with—be it following your personal movie script like John Glenn or striding through the doors of opportunity like me—there is no better platform for the journey ahead than an engineering degree.

As engineers, you are trained problem-solvers. You know how to approach a challenge, develop a solution and test the results. You have an innate curiosity and a proven ability to learn.

In today's world of rampant change, this mental toolkit will equip you to tackle new challenges, living in a future that is yet to be determined but that you will create.

Everywhere I have gone in life, the engineer's perspective has served me well.

You have the same advantage.

Conclusion

As you move to the next episode in your lives, you might like to draw on the trilogy of lessons from *The Finkel Files*.

First, don't wait for the perfect opportunity at the expense of a very good one.

Second, be prepared to make your own luck.

Third, bravely leap through open doors.

Today marks a key milestone in your own Hollywood blockbuster.

Take a moment to reflect on what you have achieved.

As engineers, you are incredibly well prepared for what the rest of the movie brings.

The cameras are rolling.

The stage is yours.

Thank you.