STAYING AHEAD OF THE CURVE
Active career self-development and personal success
What does “staying ahead of the curve” mean?

The most likely origin of the expression is linked to the growth curve that might describe, for example, the take-up of a new technology by consumers or the number of people investing in a new financial product. Those who are ahead of the curve in this sense are the early adopters of the technology when the gradient of the growth curve is smaller. In this position you take maximum advantage of an expanding area by being one step ahead of other people.

In terms of career and professional development it means a number of different but related things:

- proactively managing the progress of your career and ensuring your continued employability;
- keeping your scientific or professional knowledge up to date;
- deepening and widening your areas of expertise;
- anticipating and responding to potential new developments that might affect your working life.

Of course, it is not possible to anticipate everything that might happen, or to control every aspect of your career development. Many of the things that might affect your professional development are external factors outside your control — technological developments, changing labour markets, political priorities or the decisions of recruiters. However, there are many tactics that you can employ to maximise your ability to take advantage of opportunities and minimise the impact of negative events.

After reading this helpsheet, you may wonder how you would undertake all of these career-enhancing activities and do your job at the same time. Presented here are a range of possible tactics. Consider which combination of activities would be most appropriate for your circumstances and your personality. However, bear in mind that taking charge of your own career development will sometimes require you to operate outside your habitual comfort zone.

Why bother?

A changing employment market

The modern workplace is a rapidly changing environment. New jobs are being created and traditional jobs are being lost at an increasing rate. The trend for mergers and acquisitions in the private sector and the drive for cost savings in the public sector mean that no organisation is safe from restructuring. If you assume that change will not affect your position, you may be setting yourself up for an unpleasant surprise in the future. This is especially true in the technology and finance areas in which many physicists work. The sensible response to such an uncertain environment is to remain alert to changes that might have an impact on your position and to think constantly about how to maintain your continued employability.

Avoiding career plateaus

Another reason to take a more active approach to your professional self-development is to avoid a career plateau or dead end. Such situations may occur when you have mastered the content of your job and there is nothing more to learn. This may be compounded by a lack of opportunities for progress in your organisation. Over time, such lack of challenge often leads to a reduction in motivation and performance. If you are ambitious to advance your career, it makes sense to take as much control over your own development as you can. Even if you are not ambitious in this way, being more proactive may ensure that your career continues to be interesting and rewarding.
What it takes to stay ahead

There are three key ingredients that are necessary to increase your chances of having a successful career and developing expertise in any field:

- attitude that facilitates success;
- proper understanding of what constitutes expertise;
- appropriate strategies for identifying and taking advantage of opportunities.

Attitudes of successful scientists

Paul Thagard (2005) collated information from various sources to produce a list of characteristics demonstrated by successful and creative scientists. Whether you are working in science or not, it may be revealing to apply these attitudes to your own situation.

Make new connections

Maintain a range of interests by reading widely within your field and by finding out about adjacent or seemingly unrelated fields. Consider everything to be potentially interesting and useful unless proved otherwise. This could involve attending conferences that you might otherwise dismiss as being too unrelated to your work. Play with ideas and actively try to find analogies between your speciality and other disciplines. Look for aspects of your discipline that are less well trodden and avoid copying what everyone else is doing.

Expect the unexpected

Anticipate failures and setbacks in your research, especially in the early stages. View each setback as an opportunity to increase your understanding and refine your approach. Investigate anomalies carefully — they are occasionally the first indicators of the need for a revision of current thinking. On the other hand, try to ensure against complete failure by not committing all of your resources to one project or approach.

Be persistent

While you should remain alert to their potential for opening up whole new research areas, it is important to prevent peripheral issues from distracting you from focusing on key problems and pursuing your work systematically. Being a good scientist always involves a combination of an open-minded determination to pursue potentially interesting ideas and a willingness to abandon such ideas when convincing evidence builds up against them.

Get excited

Physics often attracts people who like to ask questions about the world. It is important to maintain this intellectual curiosity and ensure that you can link the work that you are doing directly to an important question. This is key to maintaining your enthusiasm and sense of direction. This may mean making an extra effort to pursue projects that are fun or have potential in the long term, rather than just taking what is easily available now. It may also mean taking a few calculated risks.

Be sociable

Although independence is a common characteristic of successful scientists, it is also true that they tend to work effectively with other people. Whether it is collaborating with other researchers or building strong supportive teams around them, forward-thinking individuals will try to benefit from other people’s experience and expertise. They will often learn from other people’s successes and failures as well as their own. And they will invariably ensure that they communicate and promote their work to others.

Use the world

You are more likely to come across the right opportunity if you are in an environment rich with opportunities and you are constantly alert. Choosing a research area where there are many avenues of investigation increases your chance of being fruitful. It is important to stay alert to the wider world and the bigger picture. Enduring researchers are the ones who can anticipate and ride the various waves of funding priorities linked to political imperatives.
Understanding and developing your expertise

Being an expert in any area is not just about gathering more and more information. There are a number of important dimensions of expertise (van der Heijden 2002). Evaluate your strengths in each of these areas to work out a strategy for your future development. See our other information sheets: Reflecting on Development Experiences and Identifying Your Professional Development Needs.

Knowledge
As well as declarative or factual knowledge (knowing what), there is procedural knowledge (knowing how), conditional knowledge (knowing when and where or under what conditions) and relational knowledge (knowing who).

Metacognition
This can be described as knowing about knowing. It relates to self-insight and self-awareness — knowing the boundaries of your knowledge and being aware of your strengths and limitations. It also relates to your confidence in your abilities and the extent to which you value your existing knowledge appropriately.

Skills
There is a difference between knowing how to do something in theory and being able to perform well in a given function or activity. Skills are developed from experience by applying a theoretical understanding to the complex situations of real life.

Recognition
There is little point in developing expertise if no one knows that you have it and you never have an opportunity to use it. True expertise involves developing a reputation and gaining credibility.

Growth and flexibility
To ensure continued development, it is important to be willing to extend and diversify your expertise into adjacent or different fields, thereby ensuring that your abilities are up to date and responsive to changing demands.
Adopting strategies to optimise your opportunities

Developing a positive attitude and growing your expertise will equip you to take advantage of many opportunities that happen to come your way. However, to stay ahead of the curve you have to take the initiative. It is important that your behaviour increases your chances of spotting or generating opportunities and enables you to act on them. There are three main types of activity that you need to consider: perceiving, positioning and persuading. The other “P” word to consider is “people”.

Perceiving

You are more likely to spot development opportunities if you actively look for them. Be alert for new projects or initiatives in their early stages. Similarly, you are more likely to have advance warning of any threats to your position if you pay attention to what is going on around you. Repeated bad news in your sector or unexpected meetings of senior management can be early indicators of changing times.

As well as keeping up to date with current issues in your field, it is important to cultivate political awareness at all levels: the manoeuvrings of office politics in your department, the formulation of strategy in your organisation, and the potential implications of national and international policy decisions. Even if you have no desire to become involved in office politics, they are likely to affect you, so it would be wise to be well briefed on what is going on. Be prepared to socialise with people outside the circle of colleagues whom you see every day so that you receive information from a number of different directions.

Think ahead. Make a conscious effort to investigate the possibilities and likelihood of career progression where you are now. Seek out potential roles that you might want to consider at some point in the future and investigate how the current incumbent got into that position.

Positioning

Becoming aware of opportunities is only useful if you are suitably placed to take advantage of them. This will involve proactively gaining potentially useful skills and experience that take you beyond the requirements of your current role. Investing in further training or qualifications is only a part of this. Be alert to the developmental possibilities of other activities, such as delivering training, taking on extra responsibilities or initiating projects. Try to surprise yourself by discovering skills that you never knew you had. The only way to do this is by experimenting with new things and taking a few risks. See our information sheets entitled How to Identify, Select and Brief a Training Provider and Training: When it Can Help and When it Can’t.

It is sometimes necessary to consider a sideways move to escape from a dead end into a more rapidly growing area. Beware of comfortable stagnation. If your current job is not providing you with frequent opportunities to learn or progress, you should be making strenuous efforts either to innovate or to move on. Even the same role in a different environment may be preferable because you’ll get to interact with new people.

A final aspect of positioning is increasing your visibility. If you haven’t told anyone that you want to take on more responsibility, it’s less likely that you will be considered when such opportunities arise. Get involved in interdepartmental or collaborative projects, so that it’s not just your immediate boss who is aware of your talents. Consider joining committees and working groups, especially if it brings you to the notice of influential people.

Persuading

It is not always the most deserving people who receive attention; often it is the ones who make the most noise. The idea of self-promotion makes many people uncomfortable. Most people can bring themselves to sell their strengths and achievements in order to get a job, but fewer continue to do that when they are in the job. It’s not about groundless and repetitive boasting; it’s merely making sure that significant people are aware of your efforts and accomplishments, and that you’re not undervalued. The best self-promotion comes from other people. Seek feedback from colleagues, clients and managers, and be ready to share their good opinions of you with the right people.

To be taken seriously by those with influence over your future, you also need to look the part. This is more about demonstrating interest, motivation and enthusiasm than wearing the right clothes. It’s not just about what you do but how you approach your work and how you interact with people along the way.
**People**

Very few people have successful and rewarding careers without receiving help from someone else. Be ready to identify the different ways in which people can help you:

**Information hubs** These people have links with a range of people and are reliable sources of information and gossip. If you don’t have the personality to be one of these people yourself, try to befriend one.

**Idea sources** There are some people for whom lateral thinking is like breathing. Having someone around who regularly generates novel ideas and helps you to see things from different angles can be very useful.

**Reference points** They could be mentors with whom you can discuss issues or ideas. They may also be people who know vast amounts about a particular area or have extensive experience that you can benefit from.

**Collaborators** You should always be on the lookout for people with whom you can build mutually beneficial relationships. Seek out people whose talents compensate for your weaknesses.

**Role models** Find sources of inspiration in people who have already been successful. Try to discover their secrets.

**Rising stars** Sometimes you can benefit from the success of people with even more talent and drive than you. Make yourself useful to the entrepreneurs and fast developers.

**Gatekeepers** Identify the people whose decisions will have an impact on your career progression. Ensure that they are aware of your gifts and achievements.

**Advocates** It is not just when you need formal references that it is useful to have people who will speak and act on your behalf.

**Supporters** Who will help you through setbacks? Who will nag you to keep trying?

Also, see the information sheet entitled *Networking for Professional Development* for more information about tactics.
Right place, right time

It is generally true that many of the people who have pursued successful and satisfying careers have demonstrated the qualities and tactics described above. However, even if you do all of these things, there is no guarantee that you will have a glittering career. Luck — good or bad — will always play a part. For every successful person there are sure to be a number of equally talented people who did all of the right things too but didn’t get the big break. However, there are an even larger number of people who are presented with opportunities but fail to recognise them or are unprepared for them. The approaches above will reduce your chances of falling into this category.

Further reading


B van der Heijden 2002 Prerequisites to guarantee life-long employability Personnel Review 31 (1) 44–61.


For information on science policy
www.iop.org/activity/policy
http://sciencecareers.sciencemag.org/career_development/more_topics/science_policy
www.royalsoc.ac.uk

The UK Department for Innovation, Universities and Skills (www.dius.gov.uk) will include the Government Office for Science.