Chapter 2 Networking and Strategy

"Would you tell me, please, which way I ought to go from here?"
"That depends a good deal on where you want to get to," said the Cat.

~Alice, speaking with the Cheshire Cat,

*Alice's Adventures in Wonderland, by Lewis Carroll (1865)

2.1 Strategy Is Built on Goals

Sustainable networking is a multi-tool that can be used to help you and those around you to succeed. But what is a tool without a plan or project? Imagine what the final product would be if you took a hammer and began to nail boards together with no end in mind. It would probably be a waste of effort and nails! Generally, to build something useful, you need to know what you want to build (your end goal) and how you will build it (a strategy or plan to achieve your goal), and networking is no different.

Networking strategically is important, because it allows you to focus your efforts and be more efficient with your time. And fundamental to your networking strategy is your goal or goals. Knowing yourself and what you want to achieve is how you set a goal, which is the foundation upon which you develop your networking strategy. The more specific your goal or goals, the more effectively you will be able to focus your efforts. Your goals will also act as a metric by which you assess which networking opportunities to pursue and which you should forego.

You are the ultimate orchestrator and architect of your career; just as you would not do an experiment in the lab without a hypothesis or a plan for what measurements to take, neither should you haphazardly go through your career without some sort of goal. What goals you choose to pursue is a personal matter that depends on your history, current circumstances, likes and dislikes, and aspirations for the future. Goals can be long term and ambitious, such as getting or creating a dream job in a different industry, sector, or country. Goals can also be short term and straightforward, such as taking a course to get certified for a new skill. Or you might pick a goal that is focused on your colleagues and community, such as forming a journal club or organizing a happy-hour social event.

You may not have any specific goals in mind yet, and that's okay. Goals and plans can change as you change and acquire new data about yourself, your work, and your surroundings. Like the quest for better networking, communication, and social skills, you can bring your research and study skills to bear upon the problem of goal setting. Mentors can also be invaluable during this discovery process;

the value of being a mentor or a mentee is discussed in Chapter 7. And if you want some out-of-the-box career inspiration, consider looking through the American Physical Society News Series *Profiles in Versatility*, by Alaina G. Levine.¹

If the idea of having a master plan seems daunting, don't worry, but do set *some* kind of goal. Start with something concrete and achievable. It could be about acquiring a particular skill or simply getting back in touch with people in your network who you haven't spoken to in a while, at a rate of one person a week. In fact, reconnecting with old friends and colleagues is a great way to maintain your network (see Section 2.5). But large or small, near or far, set a goal. The goal doesn't have to be perfect or forever. Do not be afraid to experiment and try new things that present themselves to you. There are valuable lessons to be learned from new experiences. Even if it means discovering new things that you didn't like, that is also valuable data to have.

On the other end, if you have a large or long-term goal, tackle it by breaking it into smaller goals and achievements. Identify skills, contacts, or experience you need to achieve in order to obtain your goal. Setting small, easily quantifiable goals in the direction of your ultimate goal will give you confidence and help you consistently move towards what you are trying to achieve.

While working towards your goal, don't be afraid to reassess and change directions. If your goal, or your approach to it, doesn't seem to be working, tweak a parameter and try again until you find something that does work. Negative results are still useful results. Steve Kamb's article "How to NOT Suck at Goal Setting" on the *Nerd Fitness* website addresses these issues of goal setting, specificity, and breaking down larger goals with respect to physical fitness, but many of these lessons are transferable to networking goals and other areas.

An important part of goal setting is self-awareness. Self-awareness is also key to empathy and communication, as will be discussed in detail in Chapter 3. It requires being attentive to and honest with yourself, examining what you do and do not like about your current situation, and what you want from your job, your career, and your life. Being or becoming self-aware means recognizing emotions within yourself and discovering what makes you happy or fulfilled. You can think of your life experiences as data and analyze them as you would if you had collected them in a lab. What trends do you see? Do the data support your hypothesis? Do they suggest other useful experiments to perform?

Having a goal is also good for time management. Your time is precious, and while it is important to be generous and network sustainably, make sure that you do not go overboard. Do not allow too much of your time to be drawn away from your own goals and what you are trying to accomplish. If a request doesn't take long, then it is easy to decide to help, but for more time-consuming tasks, make sure that you have enough time to take care of your own work before committing your time elsewhere. In its own way, protecting your time and the quality of your work is supportive of your network, because the more successful you are at your job, the more resources you will have at your disposal to assist your network. Your goal is a metric for prioritizing tasks and requests, allowing you to decline or avoid activities that would be detrimental to your progress.

2.2 Networking Strategically

Being selective and using your time and energy for the greatest benefit and impact is very important. It means being intentional about how you network. Even if you're not looking for a new job, you should be cultivating your network, because it affects how you get your job done, and it allows you to help others succeed. Networking strategy is about being able to maintain the quality of your work output while maintaining your network, helping your connections, and accessing your network to work towards your goal.

Your networking strategy will do many things for you. It will keep your networking efforts on target so that you don't waste time and can stay focused on your main concern: doing science or engineering. Your networking strategy will help you curate and filter the inputs you receive via your network, and act as the algorithm that helps you choose how to spend your time. You cannot have a reputation as a successful scientist without doing good work, but you also cannot have a reputation as a good scientist if no one knows about your work. You need to do good work for the former, and you need to network for the latter. Your abilities will not advertise themselves; waiting to be acknowledged for your talents and abilities does *not* constitute a strategy. When there is a talent that you want to showcase, seek out opportunities to exercise it. Be proactive and let your network know what you are trying to accomplish so that they can help you.

It is especially important to network strategically if you are planning on doing something new or outside your current comfort zone. For example, if you are planning a career transition from academia to industry, industrial contacts will be invaluable in your transition. If you have cultivated a diverse network, you should already have some contacts in the relevant area, but adding further to your network when you know you want to make a change is very important. This means reaching out to your existing network and asking them to make introductions to people you would like to meet, attending the types of events where you can meet such people and gain relevant skills, and researching the subject online.

Strategic sustainable networking is a long game. Cultivating your network in a kind, sustainable fashion is like growing an orchard or building a cathedral brick by brick. Being consistent in terms of helping others and your community, meeting people, and establishing relationships is the best way to network. Think of your network as a long-term investment (not something you pay attention to only when you need a new job), and it won't be hard for you to find a new job or ask for help when you need it.

There are those who consider time spent networking to be a waste of time, but networking is to your career what exercise is for your body. If you don't occasionally take some time out of your busy schedule to exercise and care for your body, it suffers. And just as exercise can be a boring, miserable thing that you have to drag yourself through if you don't pick an exercise that suits you, networking can be too with the wrong approach. This is why it is important to find your own optimal way of networking as you design your strategy, just as it is important to find a type of exercise that you enjoy, so that neither is an onerous

task. Just as you improve at fitness activities with practice, so too will you improve at networking if you make a strategy that works for you and stay consistent.

Because of this unfortunate, commonly held attitude about networking being a waste, learning to be a strategic networker gives you immediate access to some low-hanging fruit. Most people don't have a plan or strategy, so even doing a minimum of these activities will give you a significant advantage in your career. Following up after meeting or making contact with someone is one the most important networking habits to practice, but following up with consistency is hard. Even sales people, whose success is typically dependent upon networking to find new clients, often fail to follow up with prospects.³

Whatever activity you do gives you experience doing that activity and ultimately yields more opportunities to do more of that kind of activity. Like generates like. Idioms such as "you reap what you sow" and "the rich get richer, and the poor get poorer," and the concept of compound interest, are all related to this principle, which is referred to in this book as Opportunity Momentum. It applies to networking and professional opportunities, as well as personal hobbies and activities. The more you network, the better at it you will be and the more networking opportunities will come your way. People will associate you with that activity and present you with more opportunities to do it, and that gives you access to things you might never find otherwise.

Author Anecdote

I first experienced Opportunity Momentum when I began volunteering. I served as Treasurer of my SPIE student chapter in graduate school, and I was able to refer to that experience when asking for other volunteering opportunities. As I received more publicly visible volunteering opportunities at conferences, other people began to see me as a volunteer and think of me when they needed one. Each volunteering task I did, I gained more volunteering experience and more Opportunity Momentum for volunteering.

A good networking strategy built on your goals, preferences, and abilities will help you find the best and most effective ways to use your time and play to your strengths. For the introverted or the shy (which are not the same thing!), who may avoid networking or find it arduous or draining, having a strategy based on goals allows for a straightforward selection process (and being an introvert doesn't mean you can't be a good networker; more on that in Chapter 3). Using your strategy will allow you to be targeted in your networking and to attend or participate in specific events where you expect a high success rate in meeting either the type of people you want or a particular person. A networking strategy will also help you resolve feelings of anxiety that you may have associated with networking, because you will know why you're participating and what you want to accomplish, making you more relaxed, focused, and productive. It will also save you time by enabling you to avoid events that are unlikely to be fruitful.

For example, imagine two people attending a conference, Andy and Elif. Andy's goal is to make a career change from academia to industry, so his strategy for networking at the conference will be to attend professional development classes on the subject and meet others there. He'll also attend the career fair to see what industry jobs are available and talk with recruiters. He might visit the exhibition and talk to vendors in the sectors that interest him, asking about what their work is like and what skills he needs. Elif, on the other hand, is a tenured professor not looking to make any career changes, but she may have a new project in mind for which she will need funding and collaborators. She will probably set up meetings with people she already knows who work in the area relevant to her new project, as well as attend talks and meet speakers presenting relevant work. She might also attend a course on proposal writing to brush up on her writing skills to prepare for applying for funding. There might even be people at the conference who work at a funding agency that she will be applying to, and she might meet with them to discuss what they are looking for, if appropriate.

Even if both of these people are attending the same event, they will have very different experiences based on their respective goals and strategies. And this sort of goal setting and strategy development applies to any kind of networking activity or venue. How you network at a conference, online, or within your own company and town, can be strategized based on the goal or goals you set for yourself.

Another important part of strategic networking is knowing your network well. The more you know about what people are doing, and what their interests and expertise are, the better you will be able to help them in their endeavors, and the better you will understand what you can and cannot reasonably ask of them. Knowing what's going on with your contacts can help you to know when you should offer support, or when not to ask for assistance. If you know someone is looking for a collaborator or to change jobs, then you know to pass along someone's contact information or offer to review their resume. Or maybe they have a big project and they are incredibly busy, or they are coping with something like an illness in the family, and it would be inopportune to ask for anything.

Likewise, you want your network to know you and what you do, so that when information and opportunities arise, they think of you or know that you are the right person to ask about something.

Finally, as you network strategically, remember to keep your efforts in perspective. While you have control over your own actions, you typically have no direct power over the result. The Hindu practice of Karma Yoga emphasizes a lack of attachment to the fruits of one's actions, because it is only the action that one can control, nothing else. While networking is a personal and professional practice, not a spiritual one, this is an important parallel. Do your best to create the result that you want, but recognize that there are many aspects of networking that are out of your control. If things don't turn out exactly the way you planned, don't be hard on yourself. Simply examine if there was anything you might have done to achieve a different result, if applicable, and move forward, absorbing the lesson.

2.2.1 Following up

Following up is a key aspect of sustainable networking. This means making a second contact with someone after an initial interaction. Typically, following up happens digitally after an in-person contact, but not necessarily. It is key to being able to continue and solidify new networking connections, thank people for assistance and advice, let people know you appreciate their time, express your interest after an interview, and get feedback from others. Following up is discussed in a general sense in Section 7.12, in reference to conferences in Section 9.9, and in terms of content and medium in Section 10.2, but it is a concept that appears throughout this text.

2.2.2 Personal branding

In terms of strategic networking, personal branding can be a useful way to think about yourself, the work that you produce, and the value that you can offer others. Brands are about consistency and expectation management. If you are familiar with a brand, you know what to expect from it. What comes to mind when you think of Starbucks? Or Thorlabs? Or Chanel? Each of these brands has an image and identity that give you an idea about what to consistently expect from their products. Your personal brand lets others know what they can expect from you.

Think of yourself as a business or company, and your work outputs as your products. From there, you can craft a brand statement that expresses what someone can expect from you and your work. And you won't have only one brand statement, because the value that you can offer to someone will depend on *their* needs, work, and understanding. The brand statement you would give to a scientist in your field would be necessarily different from what you would give to a CEO of a company or a new acquaintance who does not work in STEM. This is about adapting to your audience, as discussed in Section 1.4.

While personal branding is a useful conceptual framework, it is not treated extensively in this book due to scope. Many of the concepts discussed here fit well into a discussion of personal branding, and it is just as useful for people working in STEM as it is for other fields. To read more about personal branding, the book *Networking for Nerds*⁵ treats it well as a networking concept for a STEM audience, and the book *Brand You*⁶ is wholly dedicated to the subject as written for a general audience.

2.3 Kindness Is Imperative

As you are thinking about your goals and designing your networking strategy, it is important to remember to do so sustainably, and core to sustainable networking is kindness. It is important to be kind to everyone. Whether or not you believe that being kind to others is the right thing to do, being unkind will affect you and your career negatively, whereas being consistently kind to others will work in your favor. People will notice if you are rude, mistreat others, or are dismissive of people whose value to your career is not immediately obvious. It will reflect poorly upon you as a person, and it makes you unlikable.

Overwhelmingly, people hire, choose to work with, and help people whom they *like*. If two candidates are equal in their qualifications, the more likeable one will be hired. This is human nature and psychology, and though it is irrational and frustrating, it is a reality. It therefore behooves everyone to be kind. Beyond generally making life more pleasant, kindness makes interactions with others more enjoyable, and it makes it easier for you to find collaborators, opportunities, and new employment.

To this end, an important aspect of strategy in networking is to widen your focus beyond the people who are currently the most powerful. Your network is a long-term investment, and getting to know people before they rise to positions of power is much more effective than the other way around. Today's graduate student is tomorrow's CEO, and they will probably remember if you were unkind to them. They will remember when they were starting out, at their point of greatest need, if you didn't help because they weren't "useful." So if being kind isn't simply the right thing to do, then do it because it will help you achieve your own goals. This includes the gatekeepers and assistants for people important enough to need a filter, and anyone else not in a traditional position of power. Make sure to be kind and gracious, and acknowledge their help when they provide it.

Being a kind, sustainable networker means using your network to help others solve their problems, anticipating people's moments of need and asking how you can help, following up on introductions or leads, following through, and giving people answers to their questions. It's about recognizing that each of your contacts has their own goals that they want to achieve and finding ways to help them. It involves understanding the other person, including knowing the other person's communication preferences. These are all acts of kindness, and they have the nice side effect of benefitting you down the road. Avoid the dark, transactional side of networking, and embrace sustainability and kindness; the success of your network will support your success.

While it is easy to be kind to people who are kind to you, it can feel impossible and frustrating to be kind to people who are not. Unfortunately, sometimes you will encounter people who are either inadvertently or intentionally unkind, and you may want to pay them back in the same currency. This desire for revenge is also part of human nature. ^{10,11} Instead of succumbing to temptation, you can use your self-awareness to recognize what feelings are provoked when someone is unkind, and choose your response rather than instinctively react with unkindness.

2.4 Care and Maintenance of Your Network

While regularly putting effort into maintaining and caring for your network is very important, it doesn't require a large amount of time. You also don't need an enormous network to be successful at networking. What you need is to keep your network informed about what you are doing so that they know when you are the right person to seek out and so that you can ask the right questions to the right people in your existing network. The information should always flow both ways, which requires you to stay in touch with your contacts by performing routine maintenance of your network.

You can easily imagine how this might turn into a time sink or a distraction. And your existing network is probably bigger than you think it is. It's not just the people with whom you work: it's the people you went to school with, your friends from non-work activities, your neighbors, etc. Fortunately, with the flourishing array of digital networking tools available, from email and LinkedIn to things like Twitter and blogs, keeping up with your network is easier today than it has ever been (digital networking methods and platforms are discussed at length in Chapters 10 and 11). Having a strategy, and being disciplined and consistent with your network maintenance, will eventually make it a habitual and easy task to perform. And you can aim for a level of involvement that suits you and your goals; for some, that will be daily, and for others, weekly or biweekly, depending on what you want to accomplish and what works well for you.

A quote attributed to the late martial artist and actor Bruce Lee is that "Long-term consistency beats short-term intensity." This principle has been studied with respect to health and fitness, 12,13 and it applies to many other areas, including networking. Consider two hypothetical extremes: networking for three consecutive days once a year versus networking 15 minutes every workday for a year (which is a little less than three days total). What do you think would be more effective? The latter would allow you to stay current on things that are going on and respond quickly, but a three-day-marathon networking session would only give you a snapshot of your network once a year. While this is an improbable example, it is a good illustration of how short, regular exchanges are more effective than infrequent information dumps.

It is human nature to avoid change and uncertainty, to stick with routine, and to not deviate unless forced. However, this is an ineffective strategy for success and happiness in today's working world. Often, we get wrapped up or trapped in a mode of managing crises or simply doing daily tasks. But regularly managing and expanding your contact base is an important investment in your future success and the success of those connected to you. Make a point to regularly comb through your connections and see who you haven't spoken with in a while, and check in with them to hear how they are doing or ask them if they need anything (digital networking makes this process quick and easy).

As you make it a point to be regularly in contact with your network, your goal should be to find ways to benefit your connections, which requires familiarity with their needs and interests. You can send them messages to check in and ask them how they are doing, ideally when you don't need anything. You can also check their activity on social media platforms such as LinkedIn, or follow their blogs or newsletters. This can mean sharing articles or papers that seem relevant to the person's interests, sending a handwritten note or gift, or giving them a phone call, if appropriate. Sharing other people's content with your network is another sound way to help, such as sharing their blog post, article, or paper on your own account. This helps raise your connection's visibility with the rest of your network.

In terms of meeting your contact's needs, remembering their work and personal details is important. It is up to you and how you want to do things, but many people find it helpful to take notes about their professional contacts. For

example, remembering that your boss's partner's name is Umar and that they have three children together (and the children's names and ages) might be a challenge for you, but it's also something that may mean a lot to your boss. Putting forth the effort to remember shows that you care, and taking notes on these sorts of details is one way to do that if you don't have a good memory for that sort of thing.

Some people keep notes on business cards, spreadsheets, etc. It can help to categorize your contacts by characteristics such as their specialties, where they are from, where they are now, how you know them, etc. You can keep a notebook, a file, notations in your contacts, or even a spreadsheet to remember details about your contacts that can help you to help them. There is also "client relationship management" (CRM) software that can help you keep track of people, often used in business, marketing, and sales. ¹⁶ Taking notes about things that you can't find in someone's LinkedIn profile, such as where you met them, can help you keep track of your contacts and find ways to be more helpful to them. Making a few notes about someone you just met can also help you remember them and enable you to better maintain the relationship moving forward. If you choose to take these kinds of notes, make sure you do it in an organized and easily accessible fashion, so that you can find them when needed.

Author Anecdote

I only recently began keeping notes on contacts, because at some point I recognized that my network had grown to the point that I wasn't able to remember certain details. After looking into my options, I began recording details in the notes section of my Google contacts. I use Gmail and an Android phone, which means I have easy access to my contacts and notes at any given time. Because I am usually connected with people on LinkedIn, where their professional details are available, I typically only record significant personal details, about family or where they grew up, or anything else I learn that seems important.

In addition to notes, digital and online networking accounts will also play a key role in your networking strategy. Given how international science and engineering are, your network could potentially be spread all over the planet. Networking online and through social media are important ways to maintain your connections, but you should seek out face-to-face meetings whenever you can, especially at the beginning of a relationship. Whenever you travel, look into your contacts and see if anyone may be nearby, and check in with them to set up a meeting. If you attend a conference or trade show, make a point to catch up with people you don't see very often but who will likely be in attendance. Digital networking platforms are incredibly powerful and important, but it is improbable that anything will ever fully replace the experience that you get by seeing someone in person. A networking strategy that incorporates both in-person and online approaches will serve you well.

Attending social or networking events is an important way to maintain your network. When a group of people you already know gather together, showing up and engaging with them is an efficient way to perform maintenance. This is part of what makes conferences (see Chapter 9) such amazing networking events: they do the work of bringing many of your existing connections together in the same place in a way you never could alone.

You can also include your connections in activities that you are already doing. This is a matter of personal preference and style, but, for example, if you are a runner and you have a professional contact who is also a runner, then going running with them to do connection maintenance is a great idea. You were already going to run, so it doesn't take a new time commitment, but it allows you to keep up with this person. This applies to any hobby or activity that you do that is professionally appropriate, and you can even include multiple contacts in these activities, as a way to cross-pollinate your network. Networking expert and author of *Never Eat Alone*¹⁷ Keith Ferrazzi is a strong advocate for this approach, but it is a matter of personal taste. It can be a very effective networking habit, but you need to be comfortable engaging with other people this way.

Your main focus in networking should be to help your connections in a way that is consistent with, or at least does not detract from, your career goals. You will ideally receive regular requests from your network for your time or assistance. With that in mind, you want to say yes as much as you can. For requests that are easy or require little effort or time commitment, saying yes should be obvious, but you need to be careful with your time and be more selective about high-commitment requests. The greater the commitment, the more important it is that it aligns with your goals and networking strategy. Saying yes to chairing a committee for an organization you care about is a good commitment to make if you want to find a leadership position in that committee or if leadership experience is important for you.

The reality is that sometimes you will need to decline because you are busy, under a deadline, or determine that the request is not a good fit for you. You want to network sustainably and perform network maintenance by participating, but not at the expense of the quality of your work (the basis of your reputation). If your reputation is harmed, it's not just bad for you but also for your network, because it hinders your ability to be helpful. So saying no and *not* over-committing yourself is not only good for you, it's good for your network.

When you recognize that a request is not timely, too much for you to handle, or not in line with your goals, politely decline and do so promptly. Don't make the person wait or have to guess your answer from your silence. Simply explain that due to the nature of the request and the time that it would take, you cannot help, but ask how you might be able to assist in a less-time-consuming way (if you want). And of course, referring someone else who might be interested and have the time to help is always a good idea—and a win—win if you find someone who would benefit from the opportunity.

2.5 Expanding Your Network

In addition to caring for your existing network, once you begin networking strategically, you will also want to think about expanding your network. There are a variety of methods, both active and passive, that you can use to begin adding connections to your network. As defined in this book, active methods include seeking out individuals, groups, organizations, or events that you want to become involved with, whereas passive methods mean sharing your information and ideas in places where others can find it and reach out to you.

Active methods can be exercised in person or remotely, but most passive methods are remote, through online social media profiles, activity on social media, or electronic and print publications. Presentations and talks given to a public audience, as well as recordings of them, can also be considered passive methods, because they make you more visible without seeking out a particular audience or person (except to the extent that you chose the venue or conference at which you are speaking). Passive networking is about making yourself visible so that other people can approach you, not the other way around.

2.5.1 Intentional relationship cultivation

Using your time effectively means networking in the right areas to achieve your goals. A part of this is intentionally cultivating relationships. Who you know and who will call upon you for assistance, and vice versa, have a powerful effect on your career and how well you can implement your knowledge and ideas.

The idea of strategic relationship building might make you squeamish, bringing the dark, transactional side of networking to mind. It might make you shy away from the idea. But with strategic relationship cultivation, as with all your networking efforts, if you do it sustainably with kindness and the ultimate goal of mutual benefit, then there is nothing wrong with it. If you seek to help first, ask favors second, and produce mutual success, then you are using the sustainable approach that benefits everyone.

It should go without saying that you should not spend time forming a connection with someone solely thinking about what you can get from them or how they can help *you*. This doesn't treat them like a person; it treats them like an object whose value is based solely on its leverage, which is not kind. The German philosopher Immanuel Kant described this as the "Formula of Humanity," which states that you should "Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means." It is okay to have in mind that someone might be able to help you, and if you are looking for help, you should be transparent and honest about that. But you should first consider if there is something you can do to help them with their goals and career.

When you want to begin strategically acquiring new connections, research your new or desired contacts and work to understand what they do. This advance preparation will help you understand what they might need and how you might open the relationship in a generous way. Your research should cover the person's

professional history, their research interests, and public social media accounts. Knowing this kind of information gives you the opportunity to establish a greater connection with them. You can use a variety of search engines, find them on LinkedIn or Twitter, and see what is important to them and what interests them. LinkedIn will also tell you if you already have a mutual connection, so that you can ask for an introduction instead of sending a cold email (how to write a good cold email is discussed in Chapters 10 and 12). If you can get an existing contact to introduce you, the person is more likely to respond, and respond favorably. If you already know that you went to the same university, studied the same subject, or have similar travel tastes, you can spend more time discussing those subjects.

You can work towards creating a connection with a person of interest by following them on social media, commenting on their public posts, attending events where you might encounter them, or contacting them directly with questions. During your initial meeting or in your opening message, let them know why you are interested in them, compliment their work, or congratulate them on an accomplishment, if applicable. Ask them questions about themselves, and if you have found a way that you think you can be of service, mention that as well. If you are looking for help, be honest and upfront about it. Remember to be concise and respectful of their time. If your initial contact leads to a phone call or in-person meeting, always follow up via email or other relevant medium with thanks and action items.

In a follow-up with a new contact, make a point to remind them of the things that you can do for them, not the other way around. You want to motivate them to stay in touch with you. Calendar alerts can help you stay in touch with people. After a meeting with someone, if you want to cultivate the relationship or if you discussed an action item with them, leave yourself a reminder to follow up with them in a week, month, or any amount of time you think appropriate. If it's a new connection you are trying to cement, don't let too much time pass without communication. And if someone referred you for the introduction, make sure to follow up with the original referrer and let them know what happened, especially if it went well and you can deliver good news; regardless of the outcome, thank them for their effort.

Ultimately, as you build relationships this way, you will augment your network such that when you are ready to commence a new project or make a career change, you will not be stepping out unsupported. You will be advancing with the aid of friends and colleagues.

In terms of relationship cultivation, people who are especially good to know because of their wide contact networks include journalists and recruiters. They are generally very well connected and are likely to remember you if you help them find someone to fill a position or with a story they are working on. So take the call or email from recruiters or journalists, because even if you aren't the person they need, you can try to help them find the right person and benefit everyone, including the connection that you refer.

2.5.2 Other ways to actively expand your network

There are a number of ways to expand your network beyond seeking out specific individuals. These include attending social and networking events, conferences, volunteering, and becoming involved in online groups and discussions that are relevant to your field, interests, and goals. Activities such as these can help you engage with others and make new connections. See Chapters 7–9 for more details.

Another good approach is to revisit old relationships from your past that have become neglected. This increases the number of active contacts in your network in a way that requires less effort than establishing brand-new contacts. People are more likely to respond to people they already know. Catching up with someone about what they have been doing since you fell out of touch is a great way to open a conversation and re-establish a connection. These can be thought of as dormant connections that need reactivation.

2.5.3 Passive network expansion

Methods for passively expanding your network are about making yourself available to be approached by others. You do this by increasing your visibility through social media, online communities, and publications. This includes your technical publications. Your conference presentations, proceedings, and any other public speaking engagements you make also serve this purpose, especially if your talk is recorded and posted online where it is searchable. Public speaking (discussed further in Section 7.7) and presenting are a grey area between passive and active, in that you can actively seek a particular venue or audience, but who approaches you afterwards is outside of your control. Asking questions during question-and-answer sessions after talks also serves as a sort of passive networking (see Section 9.3), because you are putting yourself in front of an audience. Like presenting, because you have actively chosen to attend that talk you have some impression of who the audience will be, but it is passive because it allows others to approach you if you asked a memorable question.

Passive networking means using things such as personal websites, publications, Twitter, and LinkedIn to publicly share your work and accomplishments, and generate useful content for others, including actively taking part in discussions. Your replies to someone's question in an online forum can prove useful to others, which develops your reputation as a helpful and knowledgeable person.

Ultimately, anything that can be found about you online should be considered a form of passive networking, one that requires maintenance, including being aware of and managing any negative information (e.g., you share a name with a prominent criminal). Generating content and managing negative information is discussed further in Section 10.8.

2.6 Planning versus Serendipity

While planning and strategy are essential to making your networking efforts effective, you should not make your plan so rigid that you do not allow for a bit of

serendipity. As scientists and engineers, we should have an appreciation of the value of the serendipitous and the accidental. There is a long precedent of unexpected and important scientific discoveries, including nuclear fission, ¹⁹ x-rays, ²⁰ and penicillin, ²¹ which is why no phrase in science is half so exciting as "Huh, that's strange." Studies have shown that densely populated areas afford unplanned face-to-face interactions and the development of rich networks, which increases productivity, ^{22,23} and has inspired designs and architecture intended to encourage serendipitous encounters. ^{24,25}

Accordingly, if you network in an exclusively strategic fashion, attempting to plan every move with no space for spontaneity, you will make it harder for serendipity to strike. While you should have an overall strategic plan for developing your network, make sure to leave space for accidental encounters, meeting someone at a coffee break, or on public transit. Attend the occasional networking or social event outside of your expertise or comfort zone. Some of these incidental encounters will lead to nothing, but some might become powerful collaborations or friendships.

One of the benefits of serendipity is that it is likely to result in a diverse network connection. It may be someone from a different company, field, gender, background, or country. Diversity immensely strengthens your network, making it a more powerful tool for success. The strengths and challenges presented by diversity, how to embrace diversity and reap its benefits, are discussed at length in Chapter 6. Serendipity in reference to conferences is discussed further in Section 9.9.

Exercises

- (1) Spend some time considering one or more career goals. For the purposes of this exercise, you want to generate at least one, but feel free to generate as many as you like, both large and small.
- (2) Develop a networking strategy for (one of) the goal(s) you came up with in the first exercise. Concentrating on that goal, do some thought experiments and research on general ways you could accomplish it through networking. Don't worry about the details yet; you'll be able to flesh those out as you keep reading.
- (3) Think about how you interact with others, especially people who are in service or administrative positions. Are you kind to these people? Do you treat everyone kindly, or do you have a tendency to correlate the kindness that you offer with the person's material value to you? Why? This can be a very difficult exercise that requires a lot of self-awareness and can bring up some unpleasant feelings, but try as best you can.
- (4) On what occasions have you been unkind to others? Thinking about it now, how would or could you behaved differently?

- (5) Think about some general ways that you can begin to care for and maintain your network. You could begin to reconnect with old friends, classmates, and colleagues; address overdue follow-ups; begin organizing your contacts; or start to take or organize notes on them.
- (6) Returning to the goal and strategy you created in Exercises 1 and 2, identify a relevant potential network connection and spend some time researching them. Run searches on them, find them on LinkedIn, see if they have a Twitter account or other social media presence. Try to think of ways that you could offer assistance to them or interesting questions you could ask, and find out if you have any mutual connections already. You don't need to contact them yet (unless you want to), but spend some time doing the initial preparation as practice.
- (7) Research some organizations, conferences, or events that you might attend to expand your network. Get involved or attend an event.

References

- 1. Levine, A. G., "Profiles in Versatility," *APS News*, American Physical Society (2007–2018).
- 2. Kamb, S., "How to NOT Suck at Goal Setting," *Nerd Fitness* (January 2011). Retrieved from nerdfitness.com/blog/how-to-not-suck-at-goal-setting. Accessed on February 19, 2019.
- 3. Brooks, M., "Following Up with Prospects: 90 Percent Never Do," *Sales Gravy*, Retrieved from salesgravy.com/sales-articles/closing-techniques/Following-Up-with-Prospects-90-Percent-Never-Do. Accessed on February 20, 2019.
- 4. Kumar, A. and S. Kumar, "Karma yoga: A path towards work in positive psychology," *Indian J. Psychiatry* **55**(2) (2013) [doi: 10.4103/0019-5545.105511].
- 5. Levine, A. G., *Networking for Nerds*, John Wiley & Sons, Hoboken, NJ (2015).
- 6. Purkiss, J. and D. Royston-Lee, *Brand You: Turn Your Unique Talents Into a Winning Formula*, Pearson FT Press, Harlow, UK (2012).
- 7. Higgins, C. A., and T. A. Judge, "The Effect of Applicant Influence Tactics on Recruiter Perceptions of Fit and Hiring Recommendations: A Field Study," *J. Appl. Psychol.* **89**(4), 622–632 (2004).
- 8. Dvorsky, G., "The 12 cognitive biases that prevent you from being rational," *io9 Gizmodo* (January 29, 2013). Retrieved from io9.gizmodo.com/the-12-cognitive-biases-that-prevent-you-from-being-rat-5974468. Accessed February 20, 2019.

9. Soll, J. B. et al., "Outsmart Your Own Biases," *Harvard Business Review* (May 2015). Retrieved from hbr.org/2015/05/outsmart-your-own-biases. Accessed February 20, 2019.

- 10. Harmon, K., "Does Revenge Serve an Evolutionary Purpose?" *Scientific American* (May 4, 2011). Retrieved from scientificamerican.com/article/revenge-evolution. Accessed on March 25, 2019.
- 11. Fehr, E. and S. Gächter, "Fairness and Retaliation: The Economics of Reciprocity," *J. Economic Perspectives* **14(3)** 159–181 (2000) [doi:10.1257/jep.14.3.159].
- 12. Kim, S. H. et al., "The Relationship of Exercise Frequency to Body Composition and Physical Fitness in Dormitory-Dwelling University Students," *J. Men's Health* **14**(1) (2018) [doi:10.22374/1875-6859.14.1.6].
- 13. Laskowski, E. R., "Which is better 30 minutes of aerobic exercise every day or one hour of aerobic exercise three times a week?," *Mayo Clinic Expert Answers* (December 14, 2018). Retrieved from mayoclinic.org/healthy-lifestyle/fitness/expert-answers/aerobic-exercise/faq-20058561. Accessed March 25, 2019.
- 14. Eidelman, S. et al., "Longer is better," *J. Experimental Social Psychol.* **46**(6), 993–998 (2010) [doi:10.1016/j.jesp.2010.07.008].
- 15. Ryback, R., "Why we resist change," *Psychology Today* (January 25, 2017). Retrieved from psychologytoday.com/us/blog/the-truisms-wellness/201701/why-we-resist-change. Accessed March 25, 2019.
- 16. "What is CRM? A Marketer's Guide," *Mailchimp*. Retrieved from mailchimp.com/crm/what-is-crm. Accessed on March 25, 2019.
- 17. Ferrazzi, K., Never Eat Alone, Crown Business, New York (2005).
- 18. Kant, I. and M. J. Gregor, *Groundwork of the Metaphysics of Morals*, 4:429, Cambridge University Press, Cambridge, UK (1998).
- 19. Tretkoff, E., "December 1938: Discovery of Nuclear Fission" *APS News*, **16**(11) (2007). Retrieved from aps.org/publications/apsnews/200712/physicshistory.cfm. Accessed March 26, 2019.
- 20. "November 8, 1895: Roentgen's Discovery of X-Rays," *APS News* **10**(10) (2001). Retrieved from aps.org/publications/apsnews/200111/history.cfm. Accessed March 26, 2019.
- 21. "Discovery and Development of Penicillin," *American Chemical Society International Historic Chemical Landmarks*. Retrieved from acs.org/content/acs/en/education/whatischemistry/landmarks/flemingpeni cillin.html. Accessed on March 26, 2019.
- 22. Pan, W. et al., "Urban characteristics attributable to density-driven tie formation," *Nature Comm.* **4** (2013). [doi: 10.1038/ncomms2961].

- 23. Waber, B., *Understanding the Link Between Changes in Social Support and Changes in Outcomes with the Sociometric Badge*, Ph.D. dissertation, Massachusetts Institute of Technology (2011). Retrieved from dspace.mit.edu/bitstream/handle/1721.1/67762/766797397-MIT.pdf. Accessed March 26, 2019.
- 24. Kettelhut, K., "Chasing Productivity And Innovation: Can The Workplace Get Us There?," *Work Design Magazine* (July 11, 2018). Retrieved from workdesign.com/2018/07/chasing-productivity-and-innovation-can-the-workplace-get-us-there. Accessed on March 26, 2019.
- 25. Wagner, J. and D. Watch, "Innovation Spaces: The New Design of Work," Anne T. and Robert M. Bass Initiative on Innovation and Placemaking (April 2017). Retrieved from brookings.edu/wp-content/uploads/2017/04/cs_20170404_innovation_spaces_pdf.pdf. Accessed on March 26, 2019.