Chapter 15

Virtues and flourishing

Virtue ethics has ancient roots. Different versions of virtue ethics have emerged in different cultures. The Western tradition of virtue ethics originated in ancient Athens, with Aristoteles (384–322 BCE) as a key figure. Aristotle was a student of Plato and later founded his own school, the Lyceum, where he taught Athens’ citizens what we would today call a combination of political philosophy and moral philosophy. Other virtue ethics traditions are, for example, Confucian or Buddhist, which were developed one or two centuries before Aristotle. Virtue ethics may sound antique and irrelevant for our time, but many people, in academia, in industry, and in popular media, believe it is worthwhile to turn to it and revive it, for example, in business

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and professional ethics, and in self-help books on ‘the good life’ or ‘the art of living’.

Some people misunderstand virtue ethics. They believe that it is individualistic and deals with living a goody-goody life. That is not the case. In order to correct such misunderstandings, let me take you back to Aristotle’s Athens. Let us dig up the ideas of *polis*, *telos*, and *ethos*; ideas that have gone missing in the centuries since. Let us blow off the dirt and the dust and see how we can use these ideas in our time. (Please note that some assumptions of Aristotle’s time, notably regarding slavery and women’s rights, are plainly unjust, and, fortunately, have been corrected over time, at least partially.)

**Polis**

Aristotle’s teachings were concerned with living together in a *polis*, a city. He believed that we are *zoon politikon*, social animals. We are meant to live together. That idea got lost during the Enlightenment. Many people currently believe that we are independent individuals. Losing the idea of community is unfortunate and has been a major cause of lots of injustice.

Virtue ethics does not ask how I, as an independent individual, ought to act, but asks what I can do to contribute to creating conditions in which people, including myself, can *flourish*. Of course, our time is very different from Aristotle’s. He was concerned with living in a *polis* with tens or hundreds of thousands of people (many without citizenship; notoriously, women and enslaved people). In contrast, we are concerned with living together with billions of people on one planet and with global issues, like the climate crisis. Or, on the level of nation states, we are concerned with finding ways to live together with millions of people, with whom we share legislation, language, culture, and institutions. We can also be concerned with collaboration between countries. I sometimes imagine the European Union as a *polis*, with 400 million people in 27 different countries. This image immediately raises a range of questions, like: Where are the boundaries of this *polis*? How solid or fluid should we make these boundaries? Which people can or cannot be citizens of
the EU? And how to balance national and international concerns? Such questions are at play, for instance, in deliberations about migrants or refugees, and about solidarity between member states.

In short, virtue ethics is inherently social and virtues are meant to promote conviviality, to find ways to live well together. You may have noticed that I have used the term flourish several times already. It is meant to convey a key idea of Aristotle: eudaimonia, which refers to living well together. It includes happiness, but it is much more than ‘feeling happy’. We can understand eudaimonia as living a meaningful and fulfilling life, together with others. We can characterize such a life as satisfactory, with pleasant and happy moments, but also with moments of difficulty and pain.

**Telos**

Another key concept of Aristotle is telos or purpose. I can illustrate what he meant with that by asking: Why does it rain? When you hear this question, what do you think of? Possibly an explanation; something with water in the seas and oceans, sunlight that evaporates the water, formation of clouds, a temperature drop, and the creation of raindrops. Maybe you heard the question as: Where does rain come from? Aristotle, however, would hear the question differently. For him, everything and everybody has a particular purpose, a telos, and everything and everybody strives towards their particular purpose. He would hear the question as: What is the purpose of rain? Well, it rains so that plants can grow and plants can feed animals and people. An acorn strives to grow into an oak tree. People strive towards realizing their human potential to flourish. And collectively, our purpose is to create societies in which all people can flourish.

This idea of purpose, however, also went missing in the Enlightenment, which was all about mastery, about means and mechanics. People made huge advances in science and technology, which yielded a focus on exercising control and on growth for its own sake; more of the same. ‘We’ve constructed ourselves an industrial system that is brilliant on means, but pretty
hopeless when it comes to ends’, wrote John Thackara, a pioneer and critic of online media; ‘We can deliver amazing performance, but we are increasingly at a loss to understand what to make and why’. For Aristotle, the end was obvious: human flourishing to live well together.

**Ethos**

A third concept of Aristotle that we need to understand is *ethos* or virtue. Some people recoil at the notion of virtue because it reminds them of being told to behave well and comply to all sorts of norms. That is not what Aristotle taught. Quite the opposite. In *Nicomachean Ethics*, Aristotle explained virtues in terms of excellence (which resonates in the word *virtuoso*). A virtue is a *disposition* that one develops based on past actions and that guides one’s future actions. It is a disposition that aims for an *excellent* expression of relevant virtues, according to the *appropriate mean*. That is a mean between deficiency and excess: between doing too little or too much of something, dependent on the specific, practical situation one finds oneself in. You can develop and cultivate virtues *over time*, so that your thinking, your feeling, and your acting become more and more aligned. The purpose is to increasingly align your head, your heart, and your hands.

You may understand Aristotle’s advocacy to cultivate virtues as ‘fake it until you make it’. He advocated acting virtuously, embodying a virtue, as a step towards cultivating virtues. It is easier to *act* your way into a new way of thinking than to *think* your way into a new way of acting.

Let us turn to an example: the cultivation of the virtue of courage, the excellent expression of the appropriate mean, between cowardice (deficiency) and recklessness (excess). Imagine that you are out on the street at night. You see a person being attacked. If you are a frail person, it would be courageous to stay out of the conflict and phone the emergency number. It would be reckless to intervene in the fight. Alternatively, if you are an athletic person and skilled in deescalating conflict, intervening would be courageous. It would be cowardly to stay out
of the conflict. So, different people in different situations will need to find out, and try-out, what would be an appropriate expression of a particular virtue, depending on their particular abilities and on the specific situation.

Notably, one particular virtue can take very different shapes in different contexts. Courage, for example, looks different in firefighting, in nursing, and in data science. A firefighter walks into a burning building to rescue people, fully aware of the danger, having trained extensively to work in such circumstances. A nurse often may need courage in the form of endurance in order to provide care in adverse circumstances. A data scientist may need to ask uneasy questions about difficult issues and tolerate awkward situations resulting from this. What these different expressions of the same virtue share is acting courageously in the face of danger, adversity, or difficulty.

It is important to stress that this mean has nothing to do with mediocrity. The mean for courage is not between too little courage and too much courage. It aims at excellence: doing very well what a virtuous person would do in this specific situation. One can find this mean by using practical wisdom (phronesis). Ask yourself: What would a courageous person do in this situation? Or a just person? Or a compassionate person?

Aristotle gave practical advice to find this mean. He advised those who tend to go to the excess-side of a specific virtue, to try and go to what feels like the deficiency-side of that virtue, in order to hit the appropriate mean. If you found yourself acting rashly before, do something that may feel like cowardice (to hit the mean). Alternatively, if you tend to go to the deficiency-side, you may want to try out what feels like the excess-side. If you found yourself acting cowardly before, do something that may feel like rashness (to hit the mean). These examples illustrate that self-awareness, self-knowledge, and reflexivity are critical ingredients of practical wisdom. You need wisdom to steer and modulate other virtues, like courage, self-control, or justice.

Finally, it is important to understand that virtue ethics is everything but restrictive. The opposite is the case. It is aspirational. It does not state what you should or should not do. Rather, virtue ethics helps one to guide and shape one’s natural
impulses; to shape and follow one’s desires, like the desire to eat well and take care of your body, the desire to create beauty, or to contribute to a larger purpose. In that sense, virtue ethics is an alternative to consequentialism, which can involve calculation and making trade-offs, and to deontology, which can involve compulsion and curtailing oneself.

Furthermore, in its acknowledgement of the specifics and complexity of each situation, virtue ethics is especially useful for professionals, who find themselves in specific and complex situations, often with intricate histories and conflicting demands. Moreover, there is a time-dimension to virtue ethics; cultivating virtues takes time and involves learning from experiences.

*In virtue ethics, we look at people as rational, experiential, social, and active beings. It focuses on cultivating virtues (ethos), finding the appropriate mean in specific situations, on growth (telos), and on living well together (polis) and promoting people’s flourishing (eudaimonia).*

**Practical applications**

Now, how would you apply virtue ethics in your projects? Virtue ethics is *not* about counting plusses and minuses. It is also *not* about clear rules that apply universally. In virtue ethics, it depends. It depends on the specifics of the situation and on the people involved and their abilities and willingness to cultivate and exercise relevant virtues. It depends on the various conceptions that people can have of the good life, of the kind of society they want to create.

Say, you are involved in the design or application of an algorithm for a government agency. The algorithm is meant to find fraudulent behaviour of citizens. Which virtues would you need in such a project? Self-control? Courage? Justice? Humility? You can pick one or two of these virtues and create opportunities to cultivate them. You may want to say ‘no’ to a proposal to add some functionality that stretches the project’s scope towards potential misuse. This would involve self-control and courage. Self-control in that it restricts what will be built. And courage
in that it can be difficult to argue against a prevalent logic of adding functionalities. Additionally, you may want to carry out an experiment to evaluate the algorithm’s fairness. You may want to look into not only the fairness of the algorithm in a narrow sense, but also into the fairness of the processes around the algorithm, for example, whether operators or citizens are able to inspect the algorithm’s functioning or to correct the algorithm’s output. This would involve not only justice, but also humility, for example, in being transparent about what the algorithm can and cannot do, acknowledging its limitations.

It is critical to experiment and to learn from your experiences, when you want to cultivate virtues. At first, you may feel awkward or your actions may not be entirely successful. Over time, however, you will become better in it, and your thoughts and feelings will better align with your acts. And the other way around. You may need to consciously modify your behaviour and you will probably still feel somewhat uneasy, but you will act more virtuously nevertheless.

Cultivating a virtue is a process. A person who has cultivated a virtue will have learned to express this or that virtue out of habit, in an optimal form, for appropriate reasons, and with appropriate feelings. This is the beauty of virtue ethics: it involves an aspirational mindset; it enables exercise, learning, and growth.

In addition, you can look at exemplars, people who embody, exemplify, or champion specific virtues; people whom you can look to as role models. In Chapter 21, you can find a series of short profiles of people whom I see as exemplars. You can watch online talks by them or listen to interviews with them. You can model their ways of thinking, feeling, and acting and learn from them. You can try-out relevant virtues in your work and learn by doing.

**Contemporary virtues**

Aristotle discussed a range of virtues that he found relevant for citizens of Athens. For each virtue, he discussed the well-cultivated, excellent form, and less appropriate, deficient
or excessive, forms. Many of these virtues are still relevant today, like courage, self-control, justice, and wisdom. Each virtue refers to a one’s disposition to reliably find a mean between excess and deficiency that is appropriate, given the context and one’s abilities.

In her book *Technology and the virtues: A philosophical guide to a future worth wanting*, Shannon Vallor, Baillie Gifford Chair in the Ethics of Data and Artificial Intelligence at the Edinburgh Futures Institute at the University of Edinburgh, proposes that virtue ethics is needed to discuss the opportunities and risks of emerging technologies. She argues that consequentialism and deontology are less suitable because they require more clarity and more details of the technologies we deal with. Emerging technologies, however, are in the process of being developed so that we can know very little about how they will function practically; and even less about how people will practically use them in their daily lives. A consequentialist will, therefore, find it hard to determine and analyse the plusses and minuses of, for example, a robot system that a social enterprise is developing in order to provide care for elderly people and to support care workers. There is a wide and diverse range of actors and stakeholders involved, with various and conflicting interests. Many question marks. Likewise, a deontologist will find it hard to articulate a categorical imperative that is appropriate for, for example, a surveillance and security system that a private-public partnership is developing and that includes cameras in public spaces. Identifying and discussing all relevant duties and rights will be very challenging. Again, many question marks.

For products or services that are under development, virtue ethics offers a lens to alternately zoom-out and zoom-in. You can zoom-out to explore more general questions about the ways in which the innovation that you work on may help or hinder to create a ‘future worth wanting’, a society in which people can live well together and flourish. Alternatively, you can zoom-in to explore more detailed questions about specific features of the product or service you work on and explore how these may help or hinder people to cultivate relevant virtues.
A social media app

We can have a look at social media, using an example from Vallor’s book. In 2013, Facebook aired a series of video ads to promote its Facebook Home service. One of the ads portrays a group of eight people, a family with an additional aunt and uncle, at a large table full of food, four on each side. The aunt tells in boring detail about what happened to her today. Some pretend to listen. Others concentrate on their food. One rolls their eyes. The video’s protagonist is a teenage girl. She takes action; presumably the action that Facebook endorses. She pulls out her mobile phone, keeps it in her lap, and browses through a series of snapshots of her friends: a friend behind his drumkit, drumming; her friends outside, throwing snowballs. As she scrolls these photos, these people appear, magically superimposed, with sound, in the room where they have dinner. The drummer in the corner. Her friends throwing snowballs across the room. She can experience a virtual reality that is more attractive than the reality she currently is in. This, by the way, Vallor points out, only works when one person retreats to their personal bubble. If all the people at the table would retreat in their isolated bubbles, the joint dinner would collapse.

Vallor argues that the ways in which people use technologies can either help or hinder them to cultivate specific virtues. For people who work in tech, this means that they also need to cultivate a set of virtues, in order to design and apply technologies in ways that foster prospective users’ abilities to cultivate specific virtues, and thus promote conditions in which people can flourish and live together well.

For the design and usage of social media, virtues like self-control, empathy, and civility are especially relevant. Vallor defines self-control as ‘an exemplary ability in technomoral contexts to choose, and ideally to desire for their own sake, those goods and experiences that most contribute to contemporary and future human flourishing’. Social media, however, are often designed to lure you into using the app and to keep you glued to it. This easily undermines people’s abilities to exercise
self-control. Alternatively, you could envision and create an app that enables people to cultivate self-control, for example, to articulate their goals and work towards these goals. The interface could prompt the user: ‘You have set a 5 minute limit. These 5 minutes are over. You may want to focus on your goals’.

In addition, we need empathy. The absurdity of ‘social’ media is that in theory they can bring people together; in practice, however, they often corrode our abilities to communicate. Vallor defined empathy as a ‘cultivated openness to being morally moved to caring action by the emotions of other members of our technosocial world’. Imagine that your job is to create a social media app to cultivate empathy. Such an app could display information that helps the user to better understand other people and their experiences and to connect to people with diverse experiences. It could function as a tool to become better at listening, communicating, and relating to others.

Moreover, in the context of social media, we need to cultivate the virtue of civility. Maybe you associate this term with courtesy or politeness. Vallor, however, defines it differently: as ‘a sincere disposition to live well with one’s fellow citizens ...; to collectively and wisely deliberate about [what matters]; to communicate, entertain, and defend our distinct conceptions of the good life; and to work cooperatively toward those goods of technosocial life that we seek and expect to share with others’. Our social media would look very different, if they were designed and used as tools to cultivate civility.

You can think of other virtues that are at play (or at risk) in this dinner table case. For example, courage, to speak up, to express one’s feelings, to go against the pattern of rolling eyes. Or care, to take action to foster more compassionate ways of interacting between the people present.

**Relevant virtues**

If, by chance, you find the vocabulary of virtues archaic, you can think of them as superpowers: the superpower to choose goals that contribute to flourishing (self-control); the superpower to be open to others and to act to improve their lot (empathy); or
the superpower to engage in joint deliberation and collective action to find ways to live well together (civility).

There are many lists of relevant virtues. Here, I would like to mention a series of virtues that I would see as especially relevant for people who work in tech. My goal is to provide good enough starting points for cultivating these virtues, without claiming completeness or rigour.

People who develop new technologies need to cultivate (some of) these virtues, in order to deliver technologies that can support others (‘users’) to exercise the very same virtues. If you are working on an algorithm that can impact people’s lives in terms of justice, for example, regarding fairness, and equality, then you will need to cultivate the virtue of justice. Similarly for the other virtues.

First, there are the four *cardinal* virtues: courage, self-control, justice, and wisdom. These date back to ancient Greece, but they are still relevant today:

**Courage**: The ability to act rightly in the face of adversity; a disposition to perceive dangers and opportunities and navigate between these; to find an appropriate balance between fears and hopes, between cowardice and rashness. Courage may include perseverance, dedication, and commitment. Courage plays both during design, for example, in mentioning some uneasy topic, and during usage, for example, in supporting people to cope with difficulties.

**Self-control**: The ability to steer one’s desires and impulses; a disposition to choose habits and experiences that promote human flourishing. This may include temperance, discipline, and patience. As a designer or developer, you may need to exclude specific features (to combat ‘feature creep’). While working on systems or products, you may need to consider how these can enable (or dampen) prospective users’ abilities to exercise self-control.

**Justice**: The ability to notice and evaluate diverse benefits and drawbacks of specific innovations or applications; and to
seek just and fair distributions of these benefits and drawbacks across people and across groups (distributive justice). You will need to consider how these innovations or applications can promote (or corrode) (material and procedural) justice, fundamental rights or human rights, and wellbeing of specific individuals or groups of people.

Practical wisdom: The ability to determine, for each specific situation, which virtues are needed, and to express these virtues appropriately, aiming for an appropriate mean. It functions as a master virtue that you can use to steer and modulate other virtues. It involves reflexivity, self-awareness, and self-knowledge, in order to critically reflect on practices in which you are involved and on your role and participation in these practices.

In her book, Vallor identifies and discusses a series of technomoral virtues, which we need to cultivate in order to flourish in our current, technosocial world:

Honesty, reliability or integrity: A disposition to respect and promote truth and to build and promote trust. This is relevant, for example, regarding fake news and political and cultural polarization. In your projects, you may need to consider how the system or product that you work on can foster (or stunt) honesty in people who use this system or product.

Humility: A disposition to recognize the limits of science and technology. Humility would involve questioning what technology can and cannot do and would avoid an overreliance on technological innovation. It would, for example, help to bring attention to the potential of social innovation, as a complement or alternative to technological innovation.

Civility: A disposition to seek ways to live well together with others; to promote joint deliberation and collective action towards societal goods. This is different from 'being polite'. In your work, you may want to include concerns for societal goods
and consider how the product that you work on can encourage (or hamper) people who use it to cultivate civility.

**Empathy and compassion:** A disposition to be concerned with others and with non-human animals, to be moved, and to take action. This may involve questioning your project’s objective. You may want to reflect on the ways in which the product that you work on can aid (or stifle) people’s abilities to exercise empathy and compassion.

**Care:** A disposition to meet the needs of others; to contribute to the ameliorating of suffering. This can refer both to your role in a project and to the project’s outcomes. For example, you may need to consider how the product that you work on can help (or hinder) people to care for themselves, for others, and for nature.

Vallor also discusses several *technomoral* virtues, which I chose to modify, in order to adapt them to the experiences of people who work in innovation and technology projects:

**Perspective and curiosity:** A disposition to look at situations and appreciate the various moral elements in them; and a disposition to be open and receptive towards other people and their experiences and learning from them. This virtue is needed in organizing all sorts of meetings, both with project team members and with potential users.

**Flexibility and creativity:** A disposition to steer and modulate one’s actions, beliefs, and feelings to changing situations; and a disposition to generate ideas and combine different ideas. I like to think of curiosity and creativity as mirror images, as complementary moves: curiosity has to do with impression (going in), creativity with expression (going out).

Lastly, I would like to mention several virtues that are relevant to working in technology and innovation projects and to engaging with prospective users or other stakeholders. We will
further discuss these virtues in the chapters on Human-Centred Design (Chapter 17), Value Sensitive Design (Chapter 18), and Responsible Innovation (Chapter 19):

Collaboration: A disposition to promote and foster cooperation. This virtue is probably best expressed in combination with other virtues, for example, in collaborative curiosity or collaborative creativity, and it requires care for the people involved and for group dynamics. Collaboration plays both in the context of design and in the context of usage.

Empowerment: A disposition to view the systems that you help to develop as tools to empower their users. Empowerment requires that people in design roles enable putative ‘users’ to participate actively in the design process. It also involves empowering ‘users’ to exercise virtues like self-control, empathy, and civility, when using these systems.

Anticipation and responsiveness: A disposition to explore both desirable and undesirable outcomes of your project, including, for example, higher-order effects, and to respond to changes and findings during the innovation process, for example, to question earlier choices. It involves the organization of iterative processes of experimenting and learning.

Diversity, inclusion, and participation: A disposition to promote diversity, for example, in a project teams’ composition, to include unusual perspectives or fields expertise or to enable diverse ‘users’ to participate in research and development, and in application and deployment. The latter requires sharing power with them (see Empowerment).

Take a project that you work on. Close your eyes. Inhale. Exhale slowly. Feel your feet on the ground. If you are sitting, feel the chair that supports you. Now envision your project delivering results and creating impacts in the world. How does the product that you work on affect people’s daily lives, zooming-in? How does it affect structures in society, zooming-out? Which virtues are relevant in this case? How does the product
help or hinder people to cultivate these virtues? How might the product (better) support people to cultivate these virtues? You may also want to focus on the virtues that you need, working in this project. Do you need to cultivate courage, or self-control, or justice, or another virtue? Pick one or two. Now think of opportunities to cultivate these virtues. How can you try-out these virtues, taking small steps at first. Maybe there is somebody whom you admire, a moral exemplar, whom you can learn from?