

The Dose Makes the Poison



ENGLISH PRACTICE – With the overabundance of information that pours in on us every second, **non-stop criticism of everything seems like the most normal thing in the world.** But let's refrain from always assuming and thinking the worst possible thing.

Oberau – Never before in human history has there been so much information. But a large part of our modern society finds it difficult to deal with it in a meaningful way, because excessive critical **scrutiny** and constant criticism have long since gotten the upper hand and blind many to objectivity. Most people don't even realise that they're **blithely** engaged in this occupation of constantly criticising and bad-mouthing. Some even consider constant criticism to be a measure of intelligence and citizenship in a modern democracy.

Overabundance of information

Since writing was invented over 5,000 years ago, humankind has recorded its knowledge in analogue form. In a remarkable success story, digitisation and the internet have increased the traffic density of information by billions in just a quarter of a century. Computers were invented decades ago. In 1986, the first commercially successful laptop appeared from IBM. At that time, there were only about 0.02 exabytes (20,000 terabytes) of digital information worldwide. The internet went public on August 6, 1991. As early as 2002, the volume of digitally stored, communicated and processed information reached parity with that in analogue form for the first time.

In 2007, the proportion of information in digital form grew from 295 exabytes to 94 per cent. If you were to archive all this digital information (data) on the CD-ROM storage medium, which is now considered old-fashioned, with around 700 megabytes and a thickness of 1.2 mm per disc, this would create a stack

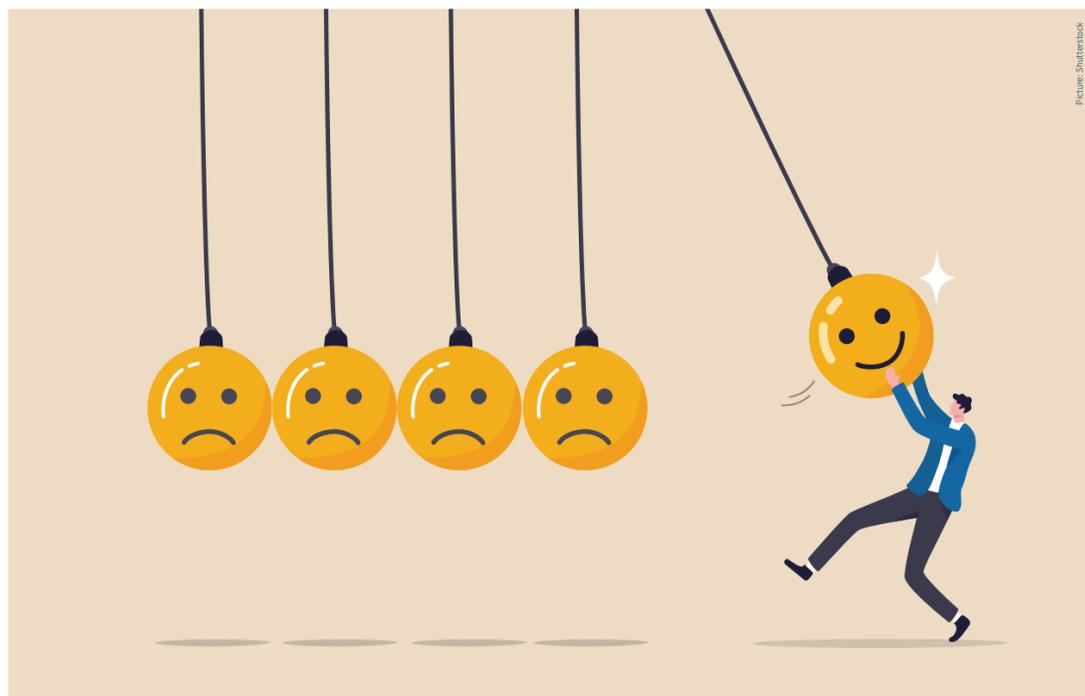
We all know the saying, "knowledge is power". This maxim has virtually done away with itself due to the immense wealth of knowledge accessible to almost anyone at any time.

at the level of 1.4 times the distance from earth to the moon (384,400km).

In 2012, 6.5 zettabytes of digital data were generated, which would be about 32 CD-ROM towers from the earth to the moon. In 2025, there will be an estimated 181 ZB, that is, almost 900 CD-ROM columns to the moon. In other words, this number of bits would correspond to about 190,000 times the number of grains of sand on our planet.

But these are only the annual generated data volumes. Much of this data remains stored and accessible for a long time, which is why the size of the global database is growing immeasurably. More than 99 per cent of all information in the world has long been digital; the proportion in analogue form, measured in terms of volume, is now **negligible**.

There is no end in sight to the development of information technology. In the next few years, the quantum computer will probably be able to map the constellation of 300 fully entangled qubits, quantum bits. Then its power lies in being able to accept as many constellations in parallel and thus process information as there are particles in the universe. But that's just a start.



Almost infinite knowledge

Nowadays, we can get infinite knowledge almost effortlessly. On the internet, in digital space, we can recruit knowledge for ourselves at every corner, any time, in any possible or impossible situation. This way, we have the world's knowledge at our disposal. But it's not about adding even more knowledge – it's about essential knowledge. And even more so, about a well-founded, correct understanding of facts.

We all know the saying, "knowledge is power". This maxim has virtually done away with itself due to the immense wealth of knowledge accessible to almost anyone at any time. Thus, knowledge is no longer power, but knowledge has become common

property and, therefore, a building block of the great turn of eras we experience.

Knowledge is fantastic because it is better to know than not know. However, if you know, you should also know what you know, how you know it, what it is connected to, where it belongs and how it fits together with other knowledge, the other insights of other thinkers.

Half-knowledge and manipulation

It is, therefore, negligent and dangerous to apply superficial half-knowledge, to present oneself as someone with a critical mind, to not accept facts or to reinterpret them, and even to pretend to know future developments, which by their very nature no one can know.

In addition, it is too often overlooked that a lot of information on the internet, in electronic media, should be treated with caution because it has been falsified or misused.

This applies to the almost omnipresent fake news and the already **deceptively** real-looking deepfakes. The latter are realistic-looking media content such as photos, videos and audio contributions that are

generated with the help of artificial intelligence and are deliberately used for propaganda, deception, conspiracy theories or abusive business purposes.

Unfortunately, many people fall for them because they don't take the time or make an effort to use common sense and fact-check. For example it is known that on the platform TikTok around 20 per cent of all videos contain incorrect information. The same is the case with many other platforms and social media channels.

The Orwellian computer model

The influence and manipulation of digital media users began when Facebook implemented the Like button in 2009.

Michał Kosinski from Stanford University is one of the leading specialists in psychometrics, which studies people through their digital traces on the internet. In a 2013 study, he found that Facebook likes can automatically and fairly accurately characterise a number of highly sensitive personal characteristics of users and predict their behaviour. Kosinski's algorithm was able to determine with 95 per cent accuracy what skin colour a person has, 93 per cent what gender, 88 per cent what sexual orientation and 85 per cent of the person's political views.

In another study, Kosinski proved in 2015 that with only 10 likes, a computer model basically knows the user better

than their colleagues; with 70 likes, better than a friend; and with 150 likes, better than a family member. Based on just 300 likes, Big Data even knows the user better than their spouse.

The British consulting firm Cambridge Analytica used such algorithms to manipulate voters in several democratic countries, which was exposed in 2018 and ended in a scandal.

There are now even more powerful technologies of this kind for all sorts of platforms and social media channels, which are used to pursue brutally abusive interests.

Toxic criticism

This targeted misinformation, supplemented by the fact that today, with the overabundance of information that pours in on us every second, non-stop criticism of everything seems like the most normal thing in the world, the main thing being to find something to fault.

This produces countless hair-splitters, pseudo-prophets and would-be geniuses who badmouth everything and know better. Yet, this is precisely what suppresses too much of what we agree with, what works well and is positive, what many people have worked hard and successfully for with heart and soul, decency and tireless commitment, and what has developed pleasingly and happily.

The dose makes the poison

Using spices in cooking is an excellent way to enhance flavour, but only if you use small amounts. Using spices in large quantities will ruin the taste. Everyone will turn away from a too-spicy, too-peppery, too-salty or way-too-hot dish. You can't get any praise or a Michelin star for that.

If you see sound criticism as an essential and effective yet careful tool, a kind of spice or remedy, then you are on the right track. A delicious dish needs seasoning, but usually, it's only a few grams. Anything beyond that will make a dish inedible. It is no different from medicinal substances in medicine.

The famous **tenet** of the Swiss doctor Theophrastus Bombast von Hohenheim, aka Paracelsus (1493-1541), was: "All things are poison, and nothing

is without poison; the dosage alone makes it, so a thing is not a poison."

Critics rarely go down in history for good reason

Unfortunately, constant criticism and **nagging** have become a habit of sorts for many people. Many find it easier to join in the chatter at the regulars' table or to take part in sweeping rounds in the group in the office or the tea kitchen, to find the negative, to express it, to get upset, to spread rumours and thus to over-salt the soup, to **squirt** poison. This often has a kind of addictive character because, at first, it feels great when you belong to the supposedly best-informed know-it-allies.

But that only drags you into the mental abyss of dissatisfaction, pessimism and hopelessness and robs you of your motivation, confidence and life energy. At the same time, one attracts other people irresponsibly into this black hole, not only switching off the light at the end of the tunnel but along its entire length.

Quietly, however, no one likes such critics; no one feels safe and comfortable in the circle of such people who constantly criticise. Unconsciously, everyone feels deep down that caution is called for because one day, I, too, could find myself in the firing line of critics.

The 99:1 rule

It would be better to reflect on our everyday life, on our way of thinking about people, institutions, developments and events and to deal with **insinuations** and prejudices. One would think and express well-meaning benevolently 99 per cent constructively and only one per cent critically, i.e., to apply a 99:1 rule. This also applies to self-criticism and self-pity.

Very successful, highly respected people do precisely that. They see the positive, the chances and opportunities, stay away from verbal attacks and practise only little but factual, well-founded, helpful and constructive criticism.

Even in cases that we are justifiably struggling with, at least a 3:1 rule should still be possible. Of course, there are very few exceptions where this does not succeed or is inappropriate. But such exceptions are known to confirm the rule.

Criticism diet

Let's go on a criticism diet. Let's refrain from always assuming and thinking the worst possible thing; and from judging or prejudging too quickly without having all the facts in hand and knowing the whole picture.

Above all, let us refrain from talking about someone absent, picking on others or spreading rumours. Let us not join in this chorus when others do but change the subject to something constructive or humorous. We all know that the future holds many surprises and twists, but we will continue to master it.

If many people behaved like this, they would not only gain more time for better things, but then a great deal of fear, worry and anger, frustration, aggression and pessimism would be eliminated. Then the dose would be suitable for confidence, enthusiasm and an infectious optimism for success and would inevitably take many others with you on this journey.

Reinhold M. Karner

first published on timesofmalta.com. A German version of the article is available under www.rmk.org



THE AUTHOR is an entrepreneur, start-up evangelist, business adviser, science author, university lecturer and chairman of companies.