Part 4 : Our relationship with digital technology

Guillaume : Okay, I think we are good now. We've done enough rehearsing, I think we can shoot now.

Théo : Yeah, but it's getting late now. Can't we continue tomorrow?

Guillaume : Why?

Théo : I only have tonight to finish the "Imagine the world of tomorrow" challenge on Minecraft.

Guillaume : The World of tomorrow?

Théo : Yeah, I'm making a really futuristic city with smart devices everywhere. There are even showers where you can have a coffee and they teleport you anywhere you want. Goodbye GPS.

Guillaume : What do you have against GPS?

Théo : Nothing. I actually love it. Without it, I'd get lost at the end of my street.

Guillaume : Doesn't that worry you? Doesn't that bother you that you're completely dependent?

Théo : Again with the big words.

Guillaume : No, they aren't big words. We're dependent and it's not getting better. The more we dematerialise, the more dependent we are. If we do away with the health service, will we have to self-treat with a smartphone? Well, only if you have signal.

Théo : Yeah, but don't worry. 5G is on its way. It'll be better.

Guillaume : What does "better" mean for technology ? Can you even tell the difference between your new phone and old phone? Besides the fact you've changed it. You're forgetting one small problem. In 50 years, if we can no longer access metals for manufacturing computers, what will we do if everything is digital? No more access to healthcare, school or public services? This is what we should be thinking about now, not when we have shortages. Some people even say reducing digital tech isn't enough, that we actually need to leave it behind.

Théo : Have you heard of the quantum computer? Maybe we should speed up innovation to find a new solution.

Guillaume : Speeding up sounds nice, but if it just means hitting a wall sooner, there's no point. We're told that we need to "consume responsibly". I'd like to keep my old phone for a long time, but if I can't fix it or if it becomes obsolete, what am I supposed to do?

It's not just up to me and my antiques to save humanity. I prefer to take up a plan of obsolescence. Force industries to manufacture more cleanly and sustainably . And not to be forced to own a smartphone to pay for parking or my dentist. Uh? Hotline, how can we get out of this dead end? What does science say?

Hotline : Guillaume, it's complicated, because the questions you're asking aren't just scientific. They're also becoming political, ethical and economical. Science doesn't have the answer to everything. It needs data, ways to process it and time to analyse it. It's what we call "research" which is science

under construction. Researchers are like you, they ask questions and try to utilise the best of the information when they don't have to spend time gathering and putting it together themselves. On the one hand, we have scientific or technical knowledge that are built up and stabilised, and on the other hand, legitimate questions from citizens or politicians that merge ethical and moral considerations. This can lead to what we call "sociotechnical controversy".

Guillaume : Sorry? Sociotechnical controversy. A dialogue of the deaf.

Théo : Like we saw with 5G.

Hotline : Yes. The hardest part for everyone in this case is to admit that there's uncertainty. If scientists were used to that, their goal wouldn't be to prove that they're right, but to reduce uncertainty to a maximum. It's more complicated for citizens and decision-makers who are waiting for responses. Science is like cooking, it needs time to stew. Think of it as a big melting pot of ideas. The researcher is like a cook, they use the ingredients they're given. So, their job depends on political will, budgets, and rules. They need some time.

Guillaume : Yeah, but this is urgent.

Hotline : Yes, true, but building awareness doesn't mean we don't know anything. We can perform assessments thanks to indicators or we can try to predict results with modelling, for example. We can quantify uncertainty through statistical tools like error bars or confidence intervals.

Guillaume : Basically, we're more or less sure that we're in trouble. Mmm. That's reassuring. So, what should I do about my smartphone? Are digital technologies good or bad?

Hotline : You see, Guillaume, that's a moral issue. What's certain is that we have a powerful tool at our disposal: technology. Is it possible to use digital technologies for the good of humanity while still protecting individuals, preserving nature, continuing to develop our societies and emancipating us from work and disease? Digital technologies, like all technologies, are part of the problem, but also of the solution. The idea isn't to make a list to pinpoint what would be good or bad, because there are too many factors and participants. Every one of us is responsible from a usage point of view, but these usages are also conditioned by our society, industry, the economic model that we depend on, by political decisions, and finally, by reality and the limits of the world in which we live. Science offers us tools and a way to form our opinions, but it's neither perfect nor infallible. It's up to us as individuals and citizens to determine what's right or fair.

Guillaume : Wait, if I have the solution, we need to do more than just study a Mooc. We need to talk about this with each other. We need to make ourselves heard . We need to debate, pass laws.

Théo : Yes, exactly. While you call Amazon and Downing Street, I'll start tidying up.

Guillaume : Now you're just being hopeless.

Hotline : It doesn't mean that it's up to you to bear it all. We need a collective step that includes all participants: You, the users and citizens, as well as scientists, philosophers, industries and politicians.The world of tomorrow will depend on our ability to coordinate these different perspectives from these various parties and the order of priority that we give to their goals.

The hard part is perhaps that our short-term dependence is stopping us from making the right decisions today in terms of what will put us in danger tomorrow.

Guillaume : Hotline, is it me or did you just express an opinion?

Hotline : Me? No

Guillaume : Yes, you did. The last bit about order of priority?

Hotline : I said "maybe" Guillaume. It's a hypothesis. In science, we come up with hypotheses to—

Théo : To change the world. Just like for my shower teleporter. See? Hypothesis!

Guillaume : Right. The impacts of digital—

Hotline : Interesting concept, Théo.

Théo : You think?

Hotline : Yes, but teleportation won't come along any time soon.

Théo : Yeah, I know.

Hotline : Let's check it out together if you want?

Théo : Yes.

Guillaume : The environmental impacts of digital technologies, take one.