Funding the Future

The danger of "shutting up and calculating"

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It is often said that the Nobel laureate physicist Richard Feynman said that he would always prefer a question he could not answer to an answer he could not question.

Whether Feynman actually said this, and whether it was original to him if he did, has not apparently been proven, but it does sound like the sort of thing he would have said, given his interest in pedagogy, and that is good enough for me.

I say that because I agree with him. The characteristic that does, I think, make us human above all others is curiosity. No innovation, invention, social progress or relationship of any sort developed without curiosity being present. And what characterises curiosity is our capacity to imagine something, although we are not sure what, that we do not know at present. It is a wish to discover that makes us who we are.

That is why those who wish to keep us in our place are so keen to prevent us from asking questions whilst demanding that we accept the answers we are given. This is how silo thinking within economics is maintained, for example, as I suggested in a recent video.

The expectation of those who wish to maintain the status quo is that we work within the parameters of what is, supposedly, known because, unless we do, we might ask a question which they do not wish to hear, which is, “But what if it didn’t need to be like this?”

As I explained in that recent video, one way in which this demand is reinforced is by expecting all those who wish to progress in academia to do so within existing frameworks of thinking if they wish for career progression, and that is what the majority of those who undertake that activity actually do.

There is, in addition, another way in which this goal is achieved. The instruction is given to those who might otherwise ask questions is that they “shut up and calculate”.

As anyone who has read anything about physics will know, it made a number of

massive advances at the beginning of the 20th century, culminating in major changes in understanding of the way in which the whole subject, and our planet, worked in the 1920s and for a decade thereafter. And then something happened. Physicists were told to shut up and calculate.

Economics also made advances in thinking in the 1930s and 1940s. And then, from the time of Paul Samuelson onward, those who wished to advance were told the same thing: "shut up and calculate" was the instruction.

In both disciplines, that was what most did. They processed data. And they distorted reality, and their assumptions, to ensure that both fit the data and their computational capacities if that was what was necessary to shut up and calculate.

This was especially true in economics. It is also true in academic accounting, which has also succumbed to this instruction.

Thought, curiosity, playfulness, fun, and the inquisitiveness liberated only by accepting the possibility of being wrong were all pushed to the sidelines.

What was left? Unquestioning acceptance of the assumptions previously supplied, and work within a paradigm increasingly removed from the real world, as the demands of the maths took precedence over the need for relevance in the work undertaken. And that is how we have reached the sorry state we are in.

The problem is not, of course, that we have run out of questions to ask. The problem is that we have created institutions in which asking the questions that most need to be asked is actively discouraged.

And this is not just an issue for academia. The consequences are apparent throughout our politics. We have politicians who are told that they cannot do things because economists have calculated that they cannot, when what we should be questioning are the assumptions upon which those calculations are based.

We have economists who can calculate the supposed cost of tackling climate change but who appear remarkably incurious about what an economy might look like in which we no longer destroy the planet.

We have accountants who can calculate the return that a company makes for its shareholders but who appear remarkably incurious about what the purpose of that company might be.

And we have central bankers who can calculate the supposed impact of a change in interest rates but who appear remarkably incurious about whether there might be better ways of managing inflation.

In each case, the capacity to calculate has been confused with the capacity to think.

They are very different things.

And, I suggest, we have also confused knowledge with wisdom. Knowledge might provide us with the capacity to answer a question. Wisdom might suggest that we should be asking a very different question.

What is more, the advent of artificial intelligence makes this distinction all the more important. If all that we are going to require of people is that they shut up and calculate, then we have just invented something that might make a great many of those people redundant.

But if what we require of people is that they be curious about the world in which we live, that they imagine how it might be different, that they ask why things are as they are, and that they have the courage to suggest that they need not be so, then we have an almost unlimited need for human ingenuity.

What we need, then, is to liberate curiosity.

We need to create an education system that rewards the asking of questions as much as it does the provision of answers.

We need an academic environment in which questioning the assumptions underpinning a discipline is seen as a contribution to it, rather than as a threat to it.

And we need a politics in which the question of what might be possible takes precedence over the endless repetition of reasons why things supposedly cannot be done.

Above all, though, we need to give ourselves permission to be curious, to speculate, to play with ideas, to make connections between things that others think unrelated, and to be wrong.

And, I stress, there is no shame in being wrong. It is an almost inevitable consequence of being curious. There is, however, something profoundly worrying about an unwillingness to contemplate the possibility of being wrong.

I agree with Feynman, whether he said what is attributed to him or not. I would much rather live in a world full of questions that we cannot yet answer than in one full of answers that we are not permitted to question.

A world full of questions we cannot answer offers us the possibility of a future different from the present. Answers we cannot question condemn us to repetition of errors already made.

And I think we can do very much better than that.