

Editorial

Artificial Intelligence and Education in our Time

There is presently a lot of excitement around the importance of educating ourselves at all levels about the uses and abuses of Artificial Intelligence (AI). Research applications to funding agencies abound that wish to show to students of different ages and abilities how to access some of the most recent general AI programs such as ChatGPT and their equivalents for purposes their academic work. Among the commonest is aid in writing scholarly essays. In this part of the world, essays in English are paramount. But any language will do these days.

Certainly, it is important that many who need it can get help in producing a written piece of a topic of one's choice. But of course, the other side of this is that such written pieces can be produced as one's own work for credit in some educational arrangement or another at school, college, or university level. So, there is equal interest in teaching learners at all levels the moral wrongness of how one might be offering work as one's own that is really just the product of access to these general AI programs like ChatGPT.

It seems to me that teaching how to properly use such AI systems for particular purposes is a valuable thing. And teaching the ethics of their use is another valuable thing. But it also seems to me that the most valuable thing that we might each learn, in an era of omnipresent AI, is what thinking is necessary in order to create a new and useful piece of AI that can perform something valuable that some of us can do or perform that could be turned into a system that could be turned into AI for the benefit of others too. That is learning ourselves how to break down the steps we actually use to accomplish an important task that we can do and other find difficult. When one understood these important steps, the steps that we uniquely easily and automatically perform, could be used to create new and useful artificial intelligence.

One can illustrate what I mean by a problem that occurred to historians in the 1970's who were interested in the history of populations and social structure. In order to look at whole populations, historians had discovered that by the mid-19th century large files of entire populations were being routinely generated. An obvious one was census of entire populations in many countries. The Bible tells us that the Romans took such censuses of everybody in their empire at the time of Jesus's birth. And most European countries and perhaps China took such censuses routinely in the mid-19th century.

A social historian might want to study specific geographical regions where such censuses existed, once they were made available publications, to understand their social structure of the particular region. But in order to do this other routinely generated files of records covering the same population, such as tax rolls, or registers of births, marriages and deaths would've to be attached person by person in a particular region so that we not only knew where people lived, but how they lived, how large their families were and what kind of money they had available annually to their families. Such tasks could have been performed by historians with great patience. They could search through such routinely generated records, when available, to bring together all the records relating to each individual in a particular town, region, province, or country and so get a picture of that society over a particular time period. From such individual records now brought together, one could have built up families or other social structures to help us tease out the history of our social past. Such work, aided by computers or automatically link such individual records, became an important new contribution to social history in England, the United States and Canada through the work of scholars like Peter Laslett in Cambridge, UK, Steven Thernstrom at Harvard in the United States and Michale Kartz at the University of Toronto in Canada. Because they could specify detail what their techniques were that permitted such "record linkage" by hand, a good computer programmer could recreate their steps and automatically link by computer assistance such records of individuals, thus making the historian's task much easier.

Every discipline offers opportunities like this for the practitioners to think through the steps necessary to accomplish a particular specific task and move it to AI. Thus, we need teaching that will help us understand our own important cleverness and analyze it to the benefit of others into steps where possible.

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