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PUBLIC ADMINISTRATION STUDIES: THE DIGITAL TRAJECTORY*

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Abstract

This paper asks how Information and Communication Technology (ICT) will influence Public Administration (PA) as an academic discipline in the near future, both in research and teaching. After looking at current ICT phenomena — from AI to gaming — and how PA has taken them up, two critical, interlinked phenomena are then analyzed: MOOCs (Massive Open Online Courses) and their effects, including a review of how the Covid-19 pandemic pushed this kind of teaching, and the current ability of algorithms to write a certain type of texts. These may have the effect to strongly enforce, even lock in, current epistemological tendencies of PA, but they may also give rise to an altogether different kind of development of scholarly inquiry in the discipline and beyond.

Keywords: AI, algorithms, gaming, ICT, MOOCs, online teaching, Public Administration, Zoom.

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1. Introduction

When the very honorable invitation reached me to contribute to this special issue of the *Transylvanian Review of Administrative Sciences (TRAS)* on 'Strategic Challenges for Public Administration — The Way Forward', with its special reference to Public Administration studies and an emphasis on digital governance, which is both driving and driven by PA, I realized that I had last dealt with this topic in writing half a decade ago (Drechsler, 2017), based, in turn, on earlier texts (especially Drechsler, 2015). Five years are an eternity in the digital sphere, and so it seemed obvious to revisit and update these considerations. Rather than commenting on them, then, this is a genuinely new iteration of that text, more new than old, or more exactly its ICT part, from the perspective of 2022[1].

2. From AI to gaming?

How Information and Communication Technology (ICT) influences, and especially will influence in the future public administration (PA), i.e. the digital trajectory, is one of the most-researched and published — and talked-about — topics in the discipline, often under the label of Digital Governance — even the state as an institution might be transformed, although it almost never is (Drechsler, 2018). But how about ICT's influence on PA as a field of scholarly inquiry?

In this context, as in so many others, the future is here already. What that means is that most people are not fully aware of what is actually going on in ICT and what we already have achieved. But there is also a fashion and even a hype element, as always in PA (Wright, 1997). The most recent 'pig that is driven through the village', to use the German saying, is Artificial Intelligence, or AI. Papers, workshops, conferences, and even graduate degree courses (!) in AI and PA abound, and the impetus for this — staying abreast of tech — is both natural and laudable. But the fact is that most of what sells as AI today is 'just' Big Data, i.e. the algorithms in question are not sentient, but rather, from a mass of data, patterns are abstracted and applied (see Ganascia, 2018). Certainly, there were and are a few

1 Seeing the iterative aspect of this paper, I will allow myself a more detailed than usual description of its genesis. Originally, it was designed as a public lecture in the ISPOLE lecture series at the Université catholique de Louvain on 27 March 2014, where I then visited as the holder of the Chaire André Molitor. This paper was also presented, in a slightly adapted form, at the 2014 EGPA annual conference in Speyer on 10 September; this was published as Drechsler, 2015. A substantially revised version was then presented at the National College of Public Administration and Governance, University of the Philippines — Diliman, on 5 April 2017, and that was published in the *Philippine Journal of Public Administration* (Drechsler, 2017) — this is the version from which the current paper takes off, i.e. it is the heavily edited and developed basis for the latter, without the epistemological part. The lecture style, however, has still not entirely disappeared. A 'side' version, also including other themes — such as my favorite topic of Non-Western PA (Drechsler, 2013), which is entirely left out here, and more on indicators and philosophy —, was published in Andrew Massey's Elgar *Research Agenda for Public Administration* (Drechsler, 2019); a few updates there have also been carried over.

good examples of AI in PA (see e.g., Bastani *et al*., 2021), but often enough, at least right now, to quote Lanier and Weyl (2020), 'AI is an Ideology, not a Technology'. In addition, the technology-driven enthusiasm for Big Data (whether called AI or not) often hinders realizing the very serious 'political risks of Big Data dominance' (DeBrabander, 2021). This is quite apart from the fact that nobody could seriously want data- or generally technology-*driven* public policy, since that would curtail human agency, and nothing in the public sphere is more crucial than that (Drechsler, 2020).

In contrast, in my opinion, a really important new phenomenon, one that has largely been flying under the radar, especially of PA (and even governance) studies experts, has been the rise of gaming (Dyer-Witheford and de Peuter, 2009), and here particularly the specific mode of watching other people game. In fact, although this is more of an anecdotal statement, in spite of people following closely the actual war in Ukraine, almost as many youths seem to have engaged in a digital, fantasy-medieval game called *Elden Ring* in early 2022 (Faulkner, 2022). But this is actually closely intertwined, given that a majority of people below 24, i.e. including the college student cohorts, receive their news primarily via social media, to the extent that they are not trying to avoid (classical) news altogether (Eddy, 2022).

But spending a large portion of their time online, political information and ideology for this group does not only come when one seeks it, but during whatever one does, and here gaming comes back. The habit to watch other people game, not to only game oneself, as one of the main engagements of that group has not often been noticed outside of specialist circles, although youth exposure to the main platform providing this, *twitch* (www.twitch.tv), tends to be the longest of all platforms (Breland, 2020). The running commentaries and chats on *twitch* are often political (with some tendency to be very right-wing; Breland, 2020) and of strong impact (Deng *et al*., 2015). As importantly, the games themselves and the values they (re)present have clear political and even administrative shaping potential, and while they are — as *Elden Ring* — often in line with mainstream economics, their political orientation is usually highly aggressive and even destructive (Stallabrass, 1993). In a world where the public sphere has been seriously endangered by social media in a 'new structural transformation', as Jürgen Habermas has just described in some detail (2022), to be aware of that and put values first and tech second is hardly anywhere more crucial than in PA. And there is no public sphere, or public value, in *Elden Ring*[2].

2 Anecdotally, I would like to add that in 2017, when I was visiting professor at the Lee Kuan Yew School at the National University of Singapore, both at the latter and at Nanyang University of Technology, there was substantive talk about cooperation of social scientists and IT experts to move towards creating immersive games related to social science classes — gamified Introduction to Policy Analysis or the like. Then a fascinating concept with great potential (think about the lack of possible distraction for the students), I have not noticed much further uptake of that idea, especially among the social scientists' communities, to the point that I would be hard pressed to present a case of development or even systematic experimentation towards such a development.

3. MOOCs

Academics in the previous years have been very much impressed by the rise of 'massive open online courses' or MOOCs. A main driver in PA is, as we said, what is cool and in fashion, and if everybody does it, you have to do it, because if not, you look bad (cf. only Friedman, 2013). MOOCs are mass-enrolment online courses, centrally offered, to which everybody can subscribe; the legatees of putting lectures online and long-distance learning. There is still no business model for them, the creation of MOOCs is very expensive, but since everybody does it, one does it, too. One studies something online, the teacher is online, maybe the exams are local, but often there are no exams. Some of the MOOCs are really successful, many of them have enrolments in the 100,000s, and there are a couple of important platforms, like Coursera, that offer them and bring them to about any connected household (see *The Economist*, 2012).

But the MOOCs, or similar arrangements, have several problematic implications even in addition to the ones just mentioned. If there is an online course for 200,000 people, what kind of exam can one give? How can this be graded? One can only ask questions that are basically multiple-choice checkable or checkable by computer or other infrastructure, because otherwise it is not possible. That is one of the influences of the MOOCs, and if MOOCs become more popular, that, in return, has an influence on science. MOOCs privilege knowledge that is replicable and general and usual. One cannot have courses for many people in which one asks essay questions for students to react in a nuanced way to complicated problems. Of course, the more literary computers become, the more they can ask complex-looking questions, because they can understand and judge the answers to them as well. On the other hand, the tendency to ask simple, easily evaluated questions is not only technology-driven, but it also conforms to the logic both of large classes and/or teaching being a quite low priority in an academic system where — often existentially necessary — funding is allotted based on anything but good teaching, however measured.

MOOCs are therefore pushing the very technical approach, which is the mainstream approach in PA, and in university teaching generally, anyway (Drechsler, 2017). This has two consequences: First, an already visible split between elite and virtual education, i.e. actually it is not so that now the poor people from the provinces get an MIT education. MIT people still get an MIT education, for which they pay a lot of money, tens of thousands every semester, and whether the education is worth it or not may be debatable, but the networking surely is (Rothman, 2014). Thus, one gets a mass education for the masses, and the top people (in a money sense) still get to talk in an exclusive environment with the top professors (see Allen, 2013). Research has consistently shown that even within the MOOC itself, students from a more elite background do better in any way (Hansen and Reich, 2015; Reich and Ruipérez-Valiente, 2019). Conversely, 'Online Courses Are Harming the Students Who Need the Most Help' (Dynarski, 2018).

The second key consequence of MOOCs is mainstreaming and non-specificity. If a school says, 'we borrow the accounting class from Ohio State, and everybody in the world takes the Ohio State accounting class', what that means is that everybody learns Ohio State

accounting. Now with accounting, this may be okay, and with introduction to mechanics, and with a survey of astronomy. But in PA, if everybody takes the intro class from Ohio State, there is no specificity anymore, there is no different methodology, there is no way for a scholar to challenge the mainstream — and that in a field that does not even have standard textbooks.

This might not sound exactly horrible, but actually it is if one believes in context, legacy and specificity. Because what does it mean that everybody does the same in the world? That means that everybody does what is done in the United States, because that is, of course, the nation that is dominating the science world and particularly, together with Britain, the PA world (Pollitt, 2015). The Covid-19 pandemic has a little bit alleviated that problem, however, by increasing international collaboration on all levels in PA, as McDonald, Hall, O'Flynn and van Thiel have pointed out in an excellent essay by editors of leading PA journals (McDonald *et al*., 2022). And that brings us to a closer look at the pandemic and its effects on PA and ICT in general.

4. The pandemic

All of those considerations about the drawbacks of remote learning were drowned in the deluge of Covid-19, which relegated people, PA academics as much as students, to their homes and therefore rendered any discussion of using or not using online courses, at least, 'academic'. But although some online courses took the shape of MOOCs, with the problems discussed attached, many did not — the default was moving existing courses, as they were, online, or more precisely, to Zoom (or in more hostile environments, to MS Teams). This maintained, exacerbated, and locked in several problems, but some were also solved or bypassed.

It had, for instance, been an uphill battle to limit or even forbid the use of laptops, and any similar devices actually, from the classroom: obviously going against the demands of digital-native students and their lifestyle, research had been very consistent in showing that laptop use limited learning, bothered other students in the vicinity, and lowered the teaching quality of the very best lecturers (Hembrooke and Gay, 2003; Sana, Weston and Cepeda, 2013). People cannot multitask and the laptop will not only encourage but force them to do just that, to their own detriment (Mueller and Oppenheimer, 2014). But because of the pandemic, laptops became necessary gateways to any teaching experience at all, and it is difficult to imagine how there will be a change back, merely because it would make pedagogical sense.

One curious aspect of pandemic teaching is that only very rarely did it lead to any genuine 'innovations'; more often than not, the old teaching experience was just digitized (as early movies were often just filmed stage plays), and the potential for change and transformation was not taken up. In the first Covid-19 semester in 2019, that was understandable because of the panic people felt and the time pressure to deliver right now, but it is difficult to justify for the terms thereafter (Ebbinghaus, 2020). In contrast, classic face-to-face

teaching in the 2x45 minutes format, if interactive and on a high level, has proven both resilient and attractive, even if some Zoom-legacy laziness of the 'audience', as well as of the teachers', has to be overcome – far from being obsolete (Bothwell, 2020), it fully contradicts the claim for now that 'the best student experience possible right now is online' (*Times Higher Education*, 2020).

In addition, while it remains true that we still do not fully know the effects of the pandemic on our lives, let alone in PA (Nemec, Drechsler and Hajnal, 2020), when considering 'the future of the university in the age of Covid' (Mance, 2020), one field where we have a considerable amount of good data is the impact of all those Zoom classes, as of MOOCs before as discussed, on student life, well-being, and equity. In an important and much-cited global study by PA scholars, specifically the experience of students has been looked at (Aristovnik *et al*., 2020).

But just as on the school level, i.e. before college, and just as with school closures (Leonhardt, 2022), it seems clear that the focus on remote online learning, as was to be expected, led to manifold health and well-being problems, a drop in knowledge acquisition, and not least a serious equity problem, in the sense that vulnerable communities suffered disproportionately much, whereas, just as with MOOCs, there was much less of an issue if there were no problems, technically, financially, and otherwise, to begin with (Goldhaber *et al*., 2022). So, while there can be no doubt that online courses (as well as hybrid ones) are here to stay, and that they came faster due to the pandemic than they otherwise would have been, the problems remain and are waiting to be responsibly addressed, as the price to pay for them in other areas is very high indeed.

5. Writing algorithms

Returning to the more perennial issue of scholarship, and specifically here the fact that algorithms can already write essays today (Lohr, 2011), we can say that we live in a world today in which some normal human texts, or what sounds like normal human texts, have not been created by a human, have never even been revised or checked or edited by one. Texts can be written by machines, and that is done especially if just data change, but how they are put together remains, over the years and decades perhaps, the same. What the computer programs do is that they look at a field, then they see how humans have written about it before, they see that just the data change, and then they take the sentences, of thousands, maybe soon millions of texts on the same subject, tie the particles and connections around new information and present it to you as a report, or statement, or even an essay — classic Big Data, no AI at all (see *supra*). Once again, we are not talking about the future, we are talking about now, and this is not that often realized (Lobe, 2015).

It started, apparently, with sports reports. For many people, in the newspaper — if it is online as much as on paper — this is the central part. You read about how people played soccer and who won. But if you think about it, even live soccer reporting is always the same. There is always an inflated piece of leather, and some young guys run after it, trying

to catch it with their feet and kicking it into the goal[3]. It is always the same story, always the same people (in the sense of types). There is nothing new in sports, really. Anything that has happened in soccer has happened before. All you, therefore, need to report a game is the hard information: ball goes from A to B, you can know that by tagging, and then you say, even live, 'Yes, yes, yes, he should be ... there is a struggle here ... he is taking over ... he is not taking over ... he is going in ... yay, goal!' and in the end, it may sound exciting — but any machine can do that.

The first reports that were actually done by computers concerned American football, not the major league but regional or college football. This was apparently done by a firm that is called Narrative Science, and their motto is 'retransform data into stories and insight'. And this has steadily increased. This means that there is sports reporting in the media already that has not been written by humans, because it is, essentially, always the same, and nobody notices (Kurz and Rieger, 2013, pp. 250–251, 260–261; Lobe, 2015).

Yet another by now typical way for computers to write essays is the quarterly reports of firms (Kurz and Rieger, 2013, p. 251). That means if a text is nothing but a story based on data, a computer program is probably even better than a human at writing the text around it. *Whenever prose narrates a table, algorithms can write it as well* (Kurz and Rieger, 2013, p. 251). Since a decade already, this has even reached the level of normal news (Dorrier, 2014; more recently GPT-3, 2020) without the public imagination having embraced this. It was news a few years ago that now software can 'fake UN speeches in just 13 hours' (Hao, 2019). And already five years ago, *Times Higher Education* could write, 'Rise of the research-bots: AI software that writes your papers for you' (Pells, 2017). On the day the galleys for this paper arrived, December 1, 2022, news of the OpenAI's new chat function (https://chat.openai.com/chat) hit the scholarly Twittersphere, producing, i.a., texts in reply to research questions that many academics judged as good, or better, as the average term paper at least (Vincent, 2022).

So, if one has a specific kind of essay, not exactly uncommon in PA, viz. just a variant of questions where the core of knowledge is a table or a quantification the outcome of which one then reports, is something that can be done by machines. They can also do the basic research, they can probably do this better than many academics, the more so the more databases are available, and then they can put it together as an article. And precisely this structure, this shape, these contents are typical of what counts for some of the best or most successful PA articles today (Drechsler, 2017; Groeneveld *et al*., 2015). We are therefore at a point in time when normal mainstream PA articles can almost be written by machines. And in fact, but this is still close to science fiction, when machines will be able to grade standard student papers, it would hardly be a problem for them to review this kind of PA articles as well, potentially cutting out the human middle-man altogether[4]. On the day this

3 As I am writing this in Doha, Qatar, just five weeks before the 2020 FIFA world championship kick-off, this is a particularly poignant point right now.

4 Another issue is that we require such papers to begin with. For many students — and I can attest that this is the case in PA as well — writing 20-page or even shorter papers, while imitating what is still the

paper was submitted, *Vice* published an article — even if again using 'AI' too loosely — headlined, 'Students Are Using AI to Write Their Papers, Because Of Course They Are. Essays written by AI language tools like OpenAI's Playground are often hard to tell apart from text written by humans' (Woodcock, 2022).

6. The trajectory

In sum, we can say that MOOCs (etc.) push PA scholarship further towards research that can basically be done, and that can be done soon, by machines, and this kind of research is the default of a certain kind of PA studies to begin with. In a profound sense, PA scholarship might therefore be on the road to becoming obsolete. But of course, this is a highly pessimistic scenario, and there is no reason to be pessimistic unless one has to be. One of the fathers of the ICT world, Nikolai Tesla, when talking about computers taking over — and he was one of the pioneers of that as well —, famously said:

> *'Today the robot is an accepted fact, but the principle has not been pushed far enough. In the twenty-first century the robot will take the place which slave labor occupied in ancient civilization. There is no reason at all why most of this should not come to pass in less than a century, freeing mankind to pursue its higher aspirations'* (Tesla, 1935, p. 7).

Two German authors and internet activists, Kurz and Rieger, who a decade ago wrote a book called *Free of Labor*, which I have cited *supra* quite frequently, a general account of machines replacing people, especially in intellectual jobs (2013; see also Frey and Osborne, 2013), have pointed out, talking about science, that if robots wrote all these boring essays, scholars could focus on interesting ones again (Kurz and Rieger, 2013, pp. 272–273). This is not different for PA — we could, if we wanted, soon leave, say, the usual comparative-empirical papers to the algorithms. Those papers often do not need humans to write them, sometimes not even machine-like humans. The 'traditional' scholars could then get back to the seminar room with some good students to seriously discuss what matters as far as the institutions of the state are concerned, and how, perhaps, they would have to react to Habermas' observations about the current challenges to the public sphere.

We thus might actually see the return of classical scholarship, exactly when it is needed, because of the challenges to mankind that we are facing because of ICT, including the shift in human self-identity. The positive story, then, would be that because of this insight, we will quit producing machine articles and switch back to writing scholarly ones. The dynamics of Western-global science is not welcoming to like that today, because funding is not allotted in such a way, but tomorrow that may change — money and technology

main medium of ranking in the academic world, is an irrelevant bother, as their focus is on producing visuals, especially media, and maximally one-page memos (Baskin, 2017). But in how many courses do we assign the production of videoclips?

are the two forces against which little can stand in the long-run, but they may alter course swiftly and surprisingly, and (necessarily self-referential) machine PA scholarship might at some point not seem helpful or even acceptable anymore to donors and masters. At Davos in 2018, Alibaba's Jack Ma, one of the more popular heroes of our times, demanded in a much re-tweeted statement, 'Everything we teach should be different from machines' (the link has by now expired).

And things will be more likely to change for the better if those of us who share this perspective keep pushing, in the various roles we have within the scientific world and outside of it, into the right direction. ICT pushes indirectly, if rightly understood (i.e. that we do not compete with machines), into the direction of relevance, of doing what humans can do best; if misunderstood, the opposite. Post-pandemic PA in the 21st century must and can mean that there will be space to reflect on this; at least *some* space.

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