



On the Hying of Scholarly Research (with a Shout-Out to ChatGPT)

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The Spectre of AI Revolution

Last week I read Dragan Gašević's afterword for a very important forthcoming book: *Human Data Interaction, Disadvantage and Skills in the Community: Enabling Cross-Sector Environments for Postdigital Inclusion* edited by Hayes et al. (2023). As the editors did their last preparations for production, the text-to-text AI model ChatGPT¹ had suddenly become the topic of the day. As it happens, these days everyone seems to be an expert in conversational artificial intelligence (AI) models, and everyone seems to have an opinion of how they should (not) be used.

Those already working in the field have tried to bring in some common sense. In a New York Times essay that immediately became viral on publication, titled 'The False Promise of ChatGPT', Noam Chomsky wrote:

In short, ChatGPT and its brethren are constitutionally unable to balance creativity with constraint. They either overgenerate (producing both truths and falsehoods, endorsing ethical and unethical decisions alike) or undergenerate (exhibiting noncommitment to any decisions and indifference to consequences). Given the amorality, faux science and linguistic incompetence of these systems, we can only laugh or cry at their popularity. (Chomsky 2023)

And more broadly, Bozkurt et al. (2023: 53) remind us that 'AI has a long history and philosophy. AI has already been widely used in all dimensions of our lives including education'. However, such calls — even those written by intellectual giants such as Chomsky — have fallen on deaf ears. Mass and social media have

¹ See <https://openai.com/blog/chatgpt>. Accessed 1 April 2023.

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(again) unlocked the spectre of the AI revolution, and its shadow is now cast above all of us.

Goodbye Winter, Hello Summer!

Today, Gašević is a key figure in AI research. Yet only a few decades ago, he did his PhD in AI '[c]arefully hidden as Semantic Web due to the still on-going AI winter' (Gašević 2023). For those newly minted experts unfamiliar with the term, AI winters are several periods in AI research that have taken place between the 1970s and today, beset by reduced interest and poor funding.

I am happy for Gašević and all other AI researchers who have finally emerged from the cold winter and entered their field's fifteen minutes of summer. However, I cannot help but remind myself that all seasons are well, seasonal. Basking in the hot, glittering sun of public attention (and hopefully some research funding), AI researchers can expect, sooner or later, another long winter. And this does not apply exclusively to AI; researchers in many fields, at one point or another, can expect radical changes in climate around their work.

The Grasshopper and the Ant

Research winters are cold, miserable, and bring hunger; so what is the best strategy for pushing through? Researchers who spend decades focused on one field of study may find inspiration in Aesop's '[The Grasshopper and the Ant](#)'. An important survival strategy is, of course, to work like the Ant — spend the summer storing up food for the winter. Researchers with fewer disciplinary ties may try out the Grasshopper's footsteps, hopping from one fashionable topic to another. Always on the jump for new themes, always on the run for new trends, these researchers may end up replacing the wheel of seasons with the hamster's wheel.

What are the main implications of this? Admittedly, I write from very limited experience. *Postdigital Science and Education* is the first journal I have edited and is only in its fifth year. During this time, however, we have already experienced considerable hype in post-truth and fake news, followed by a huge hype in Covid-19 research, and now we have the hype of ChatGPT.

Capitalism loves hypes because they bring in the cash. For instance, with the Covid-19 hype, *Postdigital Science and Education* managed to expand its readership, improve its citation ranking, and even receive some awards (see Jandrić 2020). Hypes also benefit knowledge development; for instance, Covid-lockdowns have done more for distance and open learning than several decades of research (see Jandrić et al. 2021). However, that does not make hypes inherently positive: hyped cash flow has a limited time span, and many types of research fare better with continuous research funding rather than with hyped financial ebbs and flows.

Importantly, hypes are just very stressful for researchers. I do not want to spend my summers like the Ant, toiling to store enough food for winter, and I do not want to spend my life like the Grasshopper, always jumping to the next fashionable topic. So what is to be done about the research hypes?

What Are Research Hypes?

Answering this question requires deep understanding of research hypes. I started out like the average academic Joe: by reviewing existing literature on the topic. Unsurprisingly, people working in all imaginable fields are worried about research hypes related to topics as diverse as drugs (Kubinyi 2003) and battery (Lombardo et al. 2022) research, metaverse (Dwivedi et al. 2022), stem cells (Caulfield et al. 2016), e-learning (Conole 2004), artificial intelligences (Hopgood 2003), and, of course, the newest star in the sky, ChatGPT (Lund and Wang 2023). Somewhat more surprisingly, more general(izable) attempts at understanding research hypes seem, based on my limited research at least, rare (see one example in O’Leary 2008).

From a birds-eye view, it seems that we know the major drivers behind many research hypes of the past. We can also outline some general research areas that are likely to experience some sort of hype in the future — artificial intelligences, biotechnology, online platforms... We can never know if, and when, this or that exact topic will be hyped and why. What we do know, however, is that research hypes are born and raised in the public sphere (see Caulfield and Condit 2012). This expands my literature review to beyond the keyword ‘hype’ towards topics such as theories of viral modernity, post-truth, and fake news.

Research Hypes and Viral Modernity

Viral modernity is ‘a concept that is based upon the nature of viruses, the ancient and critical role they play in evolution and culture, and the basic application to understanding the role of information and forms of bioinformation in the social world’ (Peters et al. 2022a: 675; see also Peters et al. 2022b). This concept, which ‘draws a close association between viral biology on the one hand and information science on the other’, describes (but does not explain!) the nature of various phenomena such as viral YouTube videos, creating some unpleasant implications.

Viral information and viral media have developed a special link between the way that information behaves in digital networks and the role that information plays as a messaging system in genomic biology. In social digital networks, viral media does not discriminate between information and knowledge: it can generate and circulate information irrespective of its truth value. It is an ideal medium for hype, exaggeration, falsehood, lies and gossip that are characteristic of the age of post-truth. (Peters et al. 2022a: 699)

Importantly for this argument, research hypes are a part of viral modernity (Caulfield and Condit 2012). While it would be interesting to inquire into their exact relationship, at this point, I will just examine one point of convergence; a fictional viral YouTube video about ChatGPT. Our imagined video contributes to the current AI summer, bringing in many positive effects such as increasing the visibility of the field or perhaps even a certain research group or laboratory. However, circulating information irrespective of its truth value, our video can, in some cases, lead to serious misconceptions and even misjudgements. When that happens, fact-checking is of little help, as the errata often reach much fewer eyeballs than the original (MacKenzie et al. 2021).

Research hypes not only make our career prospects uncomfortable, they also work against the basic assumption of scholarly research: that our statements' true values should matter. Scholarly research has its own established ways of weeding out falsehoods, and I am confident of our collective ability to patch these ways in the face of new challenges such as ChatGPT. In this text however, which is almost a thought experiment, I would like to leave the confines of Kuhn's (1962) 'regular science' and address the question of research hypes outside of the box.

We Do Not Do Hype. We Are Hype.

Somewhat paradoxically, my inspiration for thinking outside of the box of regular research arrives from another box (albeit most of them are quite thin these days): the television. The only fashion designer listed on Time magazine's list of the 100 most influential people of the twentieth century, Coco Chanel, once said: 'I don't do fashion. I am fashion.' (in Picardie 2011) What Chanel meant there, I imagine, is that her personality, style, taste, vision, and demeanour embody the essence of fashion. That may be true! — but it does not mean that we can all go the same way. There is only one Coco Chanel, and her elegant heels are far too high for the rest of us mortals.

However, postdigital research is slightly different from fashion. We, postdigital researchers, do postdigital work. Living in a postdigital world, we are also, and quite literally, postdigital. Speaking of viral modernity, as I recently wrote in the context of the Covid-19 pandemic,

Postdigital Science and Education is a fertile ground, and a host, for the bioinformationalist virus of Covid-19 research publication. Authors in this issue, writing about the virus, are also the virus. And I, the journal's editor and author of the Call for papers, am what epidemiologists call a super spreader of the bioinformationalist virus of Covid-19 research publication. (Jandrić 2020: 534)

Of course, I made sure to note that 'does not mean that you and I are real viruses, or that *Postdigital Science and Education* is a real viral host. Yet the problem remains'. (Jandrić 2020: 534)

The problem also deserves some serious unpacking. In the age of viral modernity, we do not just follow research hypes. We are, literally and metaphorically, the flesh and blood of research hypes! While what can be achieved by individual actions from the position in and against research hypes is questionable (see Holloway 2016), the research community is stronger than any of its members. The answer to reaching beyond the reductive in and against dichotomy, as often happens, is therefore necessarily collective (see Hayes and Jandrić 2014; Peters et al. 2020).

Postdigital Research in the Age of Viral Modernity

Postdigital Science and Education has a long queue of Online First articles. By the time this editorial is listed at the top of one of its issues, ChatGPT may already be deep in its next winter sleep, with poor AI researchers gathered around their rusty barrels of fire. Academic grasshoppers will frantically jump to other promising themes; ChatGPT ants will carefully chew on their dry foods and pickles. This will not last forever! — they will console each other, clumsily flipping through summer photos in their scruffy gloves. As they lie down in the evening, the hype monster under their beds will plot its next move.

Should we participate in the current ChatGPT hype, or indeed in the next one, and then in the next one? Sure, because scholarly research needs to live with the present and address the challenges of its day. Should we be afraid of research hypes? Sure, because the hypes pay little attention to the truth value of media appearances. There are many strategies for the age-old balancing act between publishing current research and publishing durable research with long-lasting implications — and *Postdigital Science and Education* uses them all (see Jandrić 2022). However, these are all reactive measures — is there anything that we can do proactively?

Holloway's (2016) solution for transcending the position *in* and *against* capitalism is to try and imagine a world *beyond* capitalism. Similarly, Coco Chanel said (in Picardie 2011): 'My life didn't please me, so I created my life.' This sounds so easy from the mouth of the theorist (Holloway) and the fashion diva (Chanel)! In (research) reality, however, taking control over research hypes is next to impossible: we never know which video will become viral, or which research topic will be hyped next. However, all hypes are built on existing discourses, and those can be built by opening important themes, debunking popular myths, and insisting on the truth value of our work.

We cannot control and predict the next research hype, but we can try and co-build an overall research discourse that is less susceptible to hyping. If that is too ambitious, we can still co-create an overall research discourse that is more suitable for the development of some hypes and less suitable for the development of others. Such (very) indirect ways of directing research hypes are far from ideal, but they are still much better than going with the flow.

So What Is the Hype About ChatGPT?

AI research has experienced different winters and summers for decades, and conversational robots (often made to ‘beat’ the Turing test) have always played an important role in this change of seasons. This time, things are no different. A few months prior to the 2023 ChatGPT hype, Curcher (2022) wrote a great paper in which he imagined students submitting AI-generated essays to a teacher, who provides them AI-generated feedback that students upload to their AIs without ever reading it, which improves the next round of AI-generated writing. A host of recent articles on ChatGPT (e.g., Marche 2022) entertain similar thought experiments. There is even an emerging class of employees, called prompt engineers, who are ‘experts in asking AI chatbots — which run on large language models — questions that can produce desired responses’ (Mok 2023).

In January 2023, Neil Selwyn, Thomas Hillman, Annika Bergviken-Rensfeldt, and Carlo Perrotta published their Special Issue of *Postdigital Science and Education* titled ‘Education in The Automated Age’.² Many ChatGPT issues appearing in today’s popular media can be mapped, with uncanny precision, to the overview of the Special Issue’s themes described in their Editorial (Selwyn et al. 2023). And these examples are from just one of many scholarly journals!

So, would you like to learn more about the challenge of ChatGPT? Browse scholarly databases using keywords such as ‘artificial intelligence’, ‘automation’, ‘datafication’, ‘algorithm’, and ‘AI winter’. You will find many good contributions, which are about ChatGPT in everything but the name. Of course, my argument does not imply that we ignore new ChatGPT-related research. History is the teacher of life, but teachers do not know everything, and the ChatGPT hype may follow the footsteps of its elder siblings such as the Covid-19 hype and provide some truly novel insights.

However, I do want to emphasize that when it comes to research hypes, undiscovered (or simply ignored) public knowledge is a big problem (see Swanson 1986, oldie but goodie). All that glitters is not gold, and the most recent writing on ChatGPT is not necessarily better than an older text on conversational artificial intelligence models. And even if the new writing is better than the old one, an in-depth understanding of the topic requires contextualization and historicization, nuance, and feeling, that come only from knowing theories old and new.

Postdigital Science and Education has been exploring artificial intelligences the whole winter. I am writing this editorial in the heat of the summer. We co-created conditions for the ChatGPT hype, we are now riding the wave of the ChatGPT hype, and soon we will be reflecting on the ChatGPT hype. I took a flashlight, checked under my bed, and I assure you that the hype monster does not exist. We do not do hype. We are hype. So let us enjoy our hypes responsibly!

² See <https://link.springer.com/journal/42438/volumes-and-issues/5-1>. Accessed 1 April 2023.

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