

Patrizia Anesa (ed.)

**Extended reality, AI, and discursive
formations**

Educational and professional perspectives

With a Postface by Stephen Amidon

CERLIS Series

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PHILLIP WILKINSON

AI and Discursive Formations: Reflective Connections from Serious Games

1. Introduction

Artificial Intelligence (AI), in its various forms, has mediated multiple academic disciplines. Within the transdisciplinary field of digital humanities, AI provides new digital research tools while also being the subject of scrutiny primarily through speculative criticisms over potential impacts. This chapter is one such speculation. Here, however, I will argue that there is a need to focus on potential impacts beyond AI's materiality to include the discursive worlds that form around it. The intention is to encourage critical reflection for us, as researchers, and consider the disciplinary entanglements we encounter.

The utilization of AI within the field of discourse analysis, and the application of discourse analysis to critique implementations and understandings of AI, creates multiple interdisciplinary assemblages. Interdisciplinarity is often seen as a necessity for tackling “wicked problems” (Kim et al. 2019) and is increasingly legitimated through institutional strategies. However necessary or welcome this interdisciplinarity is, it is not unproblematic. Interdisciplinarity is predicated on the reciprocal exchange of ideas and approaches (Grüne-Yanoff/Mäki 2014; Callard/Des Fitzgerald 2015). However, the degree to which this reciprocation is mutual needs to be reflexively scrutinised.

Especially when that the disciplines that are coming together are not starting on an equal footing.

This chapter will start with an appropriation of CP Snow's lamentations over the bifurcation of "the intellectual life of the whole of western society" (Snow 1990: 169). Thinking in terms of intersecting cultural contexts is useful here for two reasons. First, it helps to illustrate that the coming together of disciplines is not just an exchange of formalized taxonomies, methodologies, or epistemologies. There are axiological dimensions that influence not just what counts as knowledge but what kind of knowledge is valuable or legitimate in different contexts. As this chapter will discuss, there is a risk of increasingly prioritizing knowledge production that is easily operationalizable or understood through pragmatic domains.

The second reason it is necessary to think in terms of intersecting cultures, rather than disciplines, is the perforation of academia by socio-cultural, political, and economic contexts. The scrutiny and utilization of AI within discourse analysis exists within a wider discursive formation (Foucault 1977) that increasingly over-elevates the potential of AI through essentializing its form and impact, leading to a potential obscuring of other social technical realities or critical issues (Winner 1977; Johnson/Verdicchio 2017). There is a risk then that that discourse analysis merely becomes an uncritical beneficiary of the field of AI, either not reciprocating or limiting any reciprocal contribution by a need for operationalizable knowledge. That is, criticality is welcome but only if it contributes to AI's development or implementation.

I have this concern and write this chapter based on my experience walking between these 'two worlds' and feeling the hidden power differential. To help illustrate my argument here, I draw from my observations on superficial interdisciplinary entanglements within the field of 'Serious Games'. This is not to self-elevate my vantage point as inherently incisive or even unique. I write this chapter as a collection of representative anecdotes. Insufficient to capture the complexity of interdisciplinary discursive entanglements but sufficiently reductive to illustrate that there is indeed complexity worth capturing (Tell 2004).

2. Between Two Worlds

In 1990, British scientist C.P. Snow lamented what he saw as the bifurcation of intellectual engagement into “two cultures”. These cultures were populated by polar groups of ‘literary intellectuals’ on one end and ‘scientists’ on the other. He contends that these two groups rarely, if at all, meet but internally self-elevate and outwardly denigrate. Of course, as he admits, this characterization of academia at the time is “little more than a useful metaphor” (Snow 1990: 170). In a contemporary context, I find this to still be a useful metaphor.

Rather than literary intellectuals and scientists however, for my purposes here I broadly categorize these two cultures as the humanities and sciences. I find this a useful starting point for this chapter for three reasons. First, to identify that there is wide, blurred, dividing lines between that go beyond disciplinary boundaries. Second, that these cultures, if not outright antagonist toward each other, do not always blend well. Third, much like C. P. Snow and others I find myself uncomfortably flitting between these two cultures. Where I depart from C. P. Snow however is the source of my discomfort.

There is an elevation of the ‘sciences’ within academia broadly. This is visible in the type of undergraduate and postgraduate degrees that are publicly elevated or politically denigrated (Kent 2012). Operationally, it is also visible in the availability of research funding with the humanities, typically, receiving less funding compared to the sciences. This is of course understandable given the latter’s closer ties to industry and neoliberal economics. To an extent, we can even trace the elevation of the sciences to the pervasiveness of post-enlightenment hyper-rational ideologies. Cultural outputs are worthy and illustrate human development, and it is scientific and technological advancement that are the engines of this development.

Discussions of AI illustrate this point. Its development is framed, primarily, as a technical achievement. Contributions from the humanities, even basic definitions such as ‘robots’ (Neven/Leeson 2018), are given little consideration. This technical determinism is a pervasive issue in public reporting on AI, as is the case with other emergent technologies. Further, this broader determinism permeates

academia. The underlying forces that (de)legitimate the science and humanities disciplines are too complex, intersectional, and ethereal to be adequately reified in this chapter. All that I require is that we accept, generally, that they exist and that due to this the sciences and humanities may not be on equal socio-political, economic, or cultural footing.

This unequal footing is perhaps best illustrated by the seemingly perpetual need for the humanities to reassert its contemporary relevance and significance. Problematically however, this justification of the humanities is inherently influenced by economic imperatives and a rational determinism. The relevance of the humanities is framed through contributions to metricated constructions of economic outputs. Further, as science and technology are seen as having an elevated, if not deterministic, role then humanities are often justified as an enabler. Interdisciplinary assemblages that cross these ‘two-cultures’ are influenced by broader constructions of each discipline’s significance.

Given the elevated importance of science and technology for the economy, or societal determinism more generally, the role of humanities is one of support and safeguarding. The humanities are there to enable the operational logics of sciences and technologies to progress efficiently or serve as a necessary critical check to ensure that such progress is done responsibly, ethically, and sustainably. While the sciences drive progress, the humanities provide navigation.

Of course, I am speaking in broad terms. Because I am speaking of broad issues. The coming together of different disciplines, as mediated by wider socio-cultural and economic forces of legitimation, is complex and highly contextual. Further, these contexts can include international, national, institutional, and even departmental political expediencies. On an individual scale however, the most frequent reminder of these ‘two-cultures’ and the tension at play is my discomfort sitting at their intersection.

Naturally, there is an inherent discomfort to being an interlocuter, or interloper, across two cultures—something akin to a double imposter. I identify with a bricoleur interdisciplinary identity—drawing inspiration from Latour’s reflection on his position as “half-engineer and half-philosopher” (Latour 1993: 3). My discomfort is that the former half of my identity appears to have far more symbolic capital than the latter. That is, my prior background as a computer scientist is

much more sought-after than any humanities disciplinary identity I can lay claim to. I may have, or view myself, as existentially plural but not all my existential positions are equally valued. As mentioned earlier, I do not wish to elevate myself – especially as my discomfort comes from a feeling of unearned elevation by virtue of a disciplinary affiliation.

3. Disciplinary Entanglements

The coming together of different disciplines, especially those spanning the ‘two cultures’, is an entanglement of connections—a complex network of various ideological, epistemological, and ontological multi-directional forces from which discursive formations and academic outputs emerge. Given these underlying forces, my concern is the potentially prescriptive nature of these connections and the extent to which certain connections are followed over others. In this sense, it is helpful to view interdisciplinary AI-Discourse Analysis activity rhizomatically, in the spirit of Deleuze and Guattari (1987).

For Deleuze and Guattari’s, and my, purpose, rhizomatic thinking draws from the biological definition of the rhizome—an underground network of horizontal plant stems that create connections of various length, thickness, and concentration. Rhizome roots form plant systems that can then connect to other systems. As described by Deleuze & Guattari, the “rhizome itself assumes very diverse forms, from ramified surface extension in all directions to concretion into bulbs and tubers” (1987: 7).

The AI-Discourse Analysis entanglement can be treated as a ‘tuber’, an area characterized by the density of connections. To illustrate this assemblage of connections, I draw from Wittgenstein’s illustrative discussion of the language of games. When exploring the meaning of games across different contexts, he argues, we are examining “complicated network of similarities overlapping and criss-crossing” (Wittgenstein 1958: 66). Extending this, and staying with

games for the purpose of illustration, in the *Study of Games* Elliot Avedon and Brian Sutton-Smith (2015: 438) argued that:

Each person defines games in his own way – the anthropologists and folklorists in terms of historical origins; the military men, businessmen, and educators in terms of usages; the social scientists in terms of psychological and social functions. There is an overwhelming evidence in all this that the meaning of games is, in part, a function of the ideas of those who think about them.

Any discursive formation around ‘games’ can therefore be characterised through differential meanings that trend towards a homogenization of language. Much like AI, meaning is contested and negotiated through various disciplinary frames of reference. Further, this complex network of meaning is also subject to various underlying ideological and epistemological forces. As discussed previously, there is a concern that the practical application of AI becomes the central focus of any interdisciplinary entanglement. The benefits of AI, such as they are, are highly valued. As discussed by Berger and Luckman, theoretical knowledge can be seen as competing for legitimacy—that is, what constitutes legitimate ways of defining and approaching concepts, especially where these concepts creates connections across different epistemological positions.

4. Pragmatic Discursive Formations

As argued by Berger and Luckman (1966: 137), where there are competing theories, or ways of connecting in the case of interdisciplinary practices, then practical applicability can become the differentiable factor.

This brings us to another, equally important, possibility of conflict – that between rival coteries of experts. As long as theories continue to have immediate pragmatic applications, what rivalry may exist is fairly amenable to settlement by means of pragmatic testing.

Again, staying with games, the ‘interdisciplinary’ field of serious games illustrates the tension of competing epistemological positions and what interdisciplinary connections are therefore created. The development, or application, of games for purposes beyond entertainment is a focal point for competing expertise and epistemological positions. Some of which focus on the artistic merit of games and their greater representational affordances to create richer, immersive, and affective experiences. Likewise, the popularity of serious games, especially in sectors outside of academia, creates an appetite for pragmatic frameworks and taxonomies. Naturally, there are also positions in between.

To focus one example Games with a Purpose (GwaP) was put forward by a research team publishing two research articles. Now, the term itself is broad and speaks to the widest possible interpretation of the potential of serious games. However, the specific nature of their research was concerned with games that make boring tasks, such as labelling data, more interesting (Fulton et al. 2020). In this instance, referring to them as Games with a Very Specific Purpose (GwaVSP) would be more appropriate.

Taking this further, the type of boring tasks they were focused on was the kind of human effort to solve ‘CAPTCHAs’ “to digitize text, annotate images, and build machine-learning datasets. This in turn helps preserve books, improve maps, and solve hard AI problems” (Google 2024). Activities that, typically, benefit international private institutions through distributed labour. So instead, we should perhaps be calling them: Games with a Purpose to Generate Free Uniformed Labour on Behalf of Multibillion Dollar International Corporations (GwaPTGFULoBoMDIC).

Now within the field of serious games, in terms of familial similarity, GwaP is one example. And a particularly egregious one at that. It does, however, neatly illustrate that the prioritization of pragmatic motives is visible through terminology whilst also illustrating the, potential and necessary, contributions to be made by discourse analysts.

5. Creating Connections

I have, perhaps tenuously, laid out my concerns for the interdisciplinary assemblage of AI and Discourse Analysis. This is largely predicated on the kind of connections that are made between these disciplines, how reciprocal they are, and what constitutes ‘legitimate’ knowledge or knowledge-generating activity. Indeed, in her classification of interdisciplinary engagements, Julie Thompson Klein reflects on the *disciplining* role of language. She argues that the “question of knowledge cannot be separated from how we talk about it. Terminology is not simply a reflection of reality. It is a form of boundary work that filters and directs attention” (Klein 2017: 32).

The utility of rhizomatic thinking here is not just its focus on connections, but its potentiating of new connections. In this instance, language becomes both the means by which interdisciplinary entanglements are entrenched and power differentials reinforced, as well as the means by which we can reflexively extricate ourselves from problematic discursive formations. Indeed, according to Deleuze and Guattari, any discursive formation that emerges is temporary: “[t]here is no mother tongue, only a power takeover by a dominant language within a political multiplicity” (1987: 7). Even if there is indeed a dominant ‘pragmatic’ focus in the connections made, there are other lines of flight to be explored.

Revisiting my quoting of Wittgenstein, we must reverse our focus and recontextualize the complex networks of similarities as existing in a wider, much more complex network that contains their dissimilarities. Indeed, as argued by Johnson and Verdicchio in call for reframing AI discourse, “[w]hat may a mere terminological issue reflects a much more serious semantic gap that affects the discussion of AI on several levels and in multiple contexts.” (2017: 577). Their identification of this semantic gap and the bridge across it they offer are, rhizomatically speaking, an identification and exploration of a new connections. Perhaps then, the paradox of interdisciplinary research is that its value is predicated on a coming together of different epistemological positions whilst maintaining their differentiation.

The bridging of difference, the forming of new connections, is what leads to new assemblages of meaning. Conversely, a pragmatic focus risks severing connections in an attempt to neatly define disciplinary knowledge such that it is operationalizable therefore limiting the different perspectives from which to view it. For instance, there is a repeated claim within the field of serious games that its genesis can be traced back to the work of Clark Abt in 1970 (Djaouti et al. 2011). This relies on a very narrow definition of serious games, of course, and immediately severs fruitful connections we can make to the contemporary practice of serious games to a rich history of purposive play (Wilkinson 2016).

Similarly current discussions of AI frame its development both deterministically and a matter of recent history at most. Critical concerns of AI could, however, instead be connected to historical accounts that address universal issues of techno-performativity and automation anxiety. The Mechanical Turk, a late 18th century ‘chess-playing automaton,’ was celebrated as a mechanical innovation as it moved its own pieces and won against human players. This was uncovered to be fraudulent, of course, with a human player operating the machine from a hidden compartment. So rather than the first example of automation bordering on human intelligence, we have the first example of a performative technical innovations.

Similarly, the contemporary anxiety over mass job losses through AI can be directly connected to the early 19th-century Luddite movement. This was a movement of English textile workers who protested the mass roll out of textile machinery, concerned about losing individual autonomy through mass automation (Merchant 2023). In addition to limiting our understanding, the severing of historical connections ungrounds us, feeding into feelings of disempowerment in the face of technological determinism. That is, we are apparently addressing fundamentally new challenges, with no apparent meaningful precedent from which to draw. It further removes the human element of any technological development. Discourse analysis can reintroduce this human element into AI discourse.

Resituating contemporary challenges into socio-historical contexts is just one connection to be made through interdisciplinary engagements. As discussed by Jichen Zhu et al., framing “AI as play

can expand current notions of human-AI interaction, which are predominantly productivity-based”(2021: 1). Thus, by making this simple connection of language, we can expand the discursive formation surrounding AI to mobilize the rich history of play research. Our ability to understand, interrogate, and situate AI can now draw on a philosophical consideration extending as far back as Plato, in addition to contemporary pragmatic discussions of the purposing of play (Caillois/Barash 1961; Wilkinson 2016).

6. Conclusion

This chapter attempted to draw some parallels between serious games as an interdisciplinary practice and the emergence of AI in discourse analysis. My goal in doing so was to signpost potential tensions that might arise and, critically, what might be lost through this interdisciplinary practice. The offerings of the humanities, with their florid and critical engagements with the cultural, political, and socio-material, can both include and extend beyond the pragmatic mobilization of knowledge.

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