

Understanding the Data Gaze and Students' Improvisation of Passages on Chinese MOOCs

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Abstract

A powerful, though not universal, imaginary that posits the 'rational' nature of data appears to have taken hold, particularly in the field of digital education. Ranging from invisible learning analytics to self-tracking applications that visualise students' learning activities, data—or, in many respects, performance data—are regarded as indispensable for driving data-led insight and foresight in education practices. Yet, these metrics often create a space for surveillance in which the data gaze produces meaning and reinforces entrenched educational assumptions. This paper examines the complexity of this gaze within Massive Open Online Courses (MOOCs), platforms that were once heralded as revolutionary for massifying higher education and facilitating connectivist learning. Specifically, focusing on XuetangX, one of the largest MOOC platforms in China, this study investigates the persistent score indicator on the course learning page, aiming to understand how this indicator 'gazes' upon individual students and the way the gaze is returned. This research, rooted in phenomenology, conducted interviews with students from elite Chinese universities to acquire an understanding of their lived engagement with XuetangX. Drawing upon Beer's theory of the data gaze, the study positions the score indicator as the 'gazer,' with students occupying the role of the 'gazees.' Viewed through the gazer's lens, the findings reveal the neoliberal principles underlying the performative gaze of this score indicator, which privileges a fixed model of education and renders individuals responsible for their own learning progress. However, the gaze is not unidirectional or passively received. An interpretation of the students' responses to the score indicator using Ingold's more-than-human perspectives unravels different 'lines' through which these university students strategically resist the data gaze. Rather than reproducing the preconceived educational assumptions, the gazees are found to be improvising specific passages by 'swiping' their way into the gaze. The paper subsequently argues that the data gaze on XuetangX is a dynamic, non-static 'line of becoming' where the ongoing educational reality is co-responded, unfolding in the space between the gazer's expectations and the gazees' agencing. This theorisation provides critical insights into how data both performs and is performed in the high-stakes context of the Chinese higher education system.

Keywords

MOOCs, Data Gaze, Performance Metrics, More-Than-Human Perspective

Introduction

Under the banner of neoliberal accountability, education data have long been essential to schooling practices, capturing and making visible students' learning. This process of being constantly 'knowable' through data can be understood as the 'data gaze'—a 'performative social presence' that goes beyond the panoptic promise (Beer, 2019, p.8). Data, in this sense, open possibilities for data-led thinking and governance. Digital technologies, as they encroach upon the education landscape, have been co-opted as major sites of such gazes, frequently manifesting as tracking metrics within networked learning environments, such as MOOCs. A typical example can be found on *XuetangX*, the largest Chinese MOOC platform, where a score indicator is constantly visible in the top-left corner of the course page. As completing MOOCs is often a formal course requirement in Chinese universities, the 'gaze' of the numerical display could be understood as a governing strategy that expects students to self-regulate. This mechanism masks a neoliberal ideology that, as Gourlay (2025) argues, makes students responsible for active participation while 'atomising' them in the pursuit of performance optimisation. For students, such educational data are thus non-neutral but 'lively' agents co-constituting the relationships between the learner, the institution, and the digital environment.

This paper examines the agency of the score display on *XuetangX* and how such metrics are made visible, amenable and therefore influential to students' MOOC engagement. Based on 17 interviews with Chinese university students, the findings indicate subtle influences enacted by the score indicator on students, who, in turn, adopt approaches to negotiate such influences. While the 'data gaze' serves as the conceptual entry point, Ingold's (2012) more-than-human perspectives are further employed to make the co-constitutive relationships more evident. Although a decade of MOOC research has focused on amassing data to boost participation, the performativity of such data remains under-researched, especially in the case of Chinese MOOCs, which are structurally integrated into the national higher education (HE) system. In response, this paper contributes to the evolving concept of Networked Learning (NL) by exploring the sociotechnical interplay between data infrastructures, student agency, and institutional governance—a network uniquely configured by the Chinese MOOC landscape.

Theoretical stance and research questions

In digital education, data are hardly neutral 'raw materials.' Ample research suggests that numbers of all sorts are performative. For example, most MOOC research, with its focus on profiling students and quantifying participation, can privilege specific forms of engagement, thereby establishing 'normative' conditions of learning (Knox, 2016). Understanding these circumstances requires examining the underlying modes of thinking within which such data dwell. This is where the notion of the 'data gaze', understood as enmeshed in 'particular visions' of the social world (Beer, 2019), becomes a useful means for interpreting the score indicator on *XuetangX*. Specifically, as Beer (2019, p.2) notes, the gaze involves seeing: 'What [data] can do, because it is here that the outcomes are being pre-set, where agendas are being articulated and embedded and where claims to know-how and expertise are being made.'

This paper further explores the relational nature of student engagement. Here, Ingold's (2012) concept of 'improvising passages' invites a more inventive engagement with the data gaze. It emphasises that beings are not predetermined but are continuously improvised and 'correspondent' (Ingold, 2012). Within this process, the role of the individual is not to 'reproduce' preconceived assumptions, but to 'follow' the flows of digital infrastructures. Aiming to reveal the agendas embedded within the score indicator and how students 'follow' these 'lively' metrics, this study addresses the primary research question: *How does the XuetangX score indicator entangle with Chinese university students' lived MOOC experiences?* Two sub-questions include: 1) *What rationalities constitute the XuetangX score indicator?* 2) *How do students negotiate or correspond with these metrics in their everyday MOOC education?*

Methodology

Research design and participant recruitment

This paper draws on the findings from an ongoing phenomenological study that aims to capture the 'lived experiences' of Chinese university students as they navigate *XuetangX*. A qualitative design rooted in phenomenology, which allows for exploring the 'more-than-human' entanglements, is adopted. Research proceeded in two stages: first, institutional access was secured via formal email with an elite Chinese university to reach target participants; and second, 17 participants were recruited through a combination of purposive and snowball sampling. Purposive sampling helped identify students who met the inclusion criteria: those with experience studying one or more *XuetangX* MOOCs. To expand the pool, snowball sampling was utilised, with initial interviewees referring eligible peers. Although the majority recruited were social science postgraduates (n=14), potentially limiting disciplinary diversity, it's important to note that this study prioritises analytical depth over statistical generalisability.

Data collection and analysis

Data were collected through semi-structured interviews, a method well-suited for phenomenological inquiry due to its depth and flexibility. The interviews lasted around 60 minutes and focused on students' lived interactions with *XuetangX*, their affective responses, and their perceived relationships with the institution. Data analysis followed van Manen's (2014) 'phenomenology of practice' through 'thematic reflections' and 'eidetic reduction.' By recursively reviewing interview transcripts and discerning 'succinct' phrasings, the researcher distinguished between invariant themes that pertain to the core of the 'gaze' and variant themes reflecting diverse students' reactions. Finally, these themes were sensitively expanded into narrative passages and utilised as findings' headings to reveal the 'originary' thematic insights of the students' digital learning lives.

Findings and discussion

The rationalities constituting the score indicator

As shown in Figure 1, a score indicator is constantly displayed in the top-left corner of the XuetangX course page. This score can be clicked and is accompanied by a progress bar showing the percentage of video watched, along with a reminder of the points needed to proceed. All participants identified the components of this score as ‘video-watching time’, ‘discussion participation’, and ‘assignment results’, listed in descending order of frequency mentioned. Arguably, these metrics redefine what counts as ‘legitimate’ MOOC learning; students are expected to fully watch the video, finish the assignments, and participate in the discussion. This finding is partly resonant with early MOOC research by Kizilcec et al. (2013), which measured students’ video-watching and assessment results to identify four categories of MOOC engagement, including “auditing”, “behind”, “on track”, and “out”. In this respect, both *XuetangX* and Kizilcec et al. (2013) value video lectures and formal assessments as the primary components of MOOC education. This ‘fixed’ mode of learning may recast flexible student practices, such as skipping easy content, which may otherwise be considered ‘efficient’, as less valued. The means by which Chinese university students might engage with MOOCs may be significantly limited.

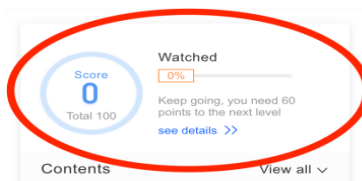


Figure 1: Screenshot of the XuetangX course page

Afolayan (2018, p.314), referring to Sartre’s work, argues that in the gazer’s gaze, ‘I see myself as the Other sees me’. This suggests that when captured in a gaze, individuals judge themselves based on the assumptions of the gazer. It is thus unsurprising that 10 of 17 participants acknowledge the subtle influences they experience. Specifically, one participant mentioned occasionally clicking the score because ‘the indicator is really big’. Four others explained their attention to the score since ‘it counts towards the final grade’. Because the score is integrated into formal course requirements, the gaze from the score is enacted by rendering students’ learning knowable, not only to themselves, but also to their teachers and institutions. Transparent metrics, in this case, serve to ‘produce domination and responsabilisation’ (Ball, 2013, p.59). By positioning progress as something continuously monitored, the gazer makes students responsible for following the indicator’s ‘kind reminder’. This projects a rise of the neoliberal ideal learner, which assumes the figure of an autonomous subject within a culture of accountability. The perceived institutional importance of this score thus shapes real-life practices that constitute Chinese university students’ MOOC enactment. Overall, the score indicator can be understood as a performative power that enables *XuetangX* and universities to mediate how students ‘see, know and do things’ (Williamson, 2015, p.17). Within this system, Simon (2005, p.15) explains that students are no longer ‘individuals’ but ‘dividuals’, such that the ‘reference of the panoptic gaze is no longer the body’ but the students’ data body. Consequently, students’ physical selves are made invisible because what matters in the score is not their lived learning experiences, but their data traces of ‘video-watching.’

Whilst the data body is often viewed as beyond the reach of the human body, more-than-human perspectives put forth the possibility of working with one’s data body ‘things’ ‘to do and be in the world’ (Thompson & Prinsloo, 2022, p.161). One’s human and data bodies are inseparable, with each enacting the other. Under this framing, the next section presents and discusses Chinese university students’ ‘agencing’ with the gaze to exist differently.

Students’ negotiations: The gazees ‘swiping’ back

In Ingold’s (2010) ‘improvising passages’, ‘following’ involves moving along what Deleuze and Guattari (2004, cited in Ingold, 2010) describe as ‘lines of flight’—spaces that escape the rigid structures of a system. Participants’ responses demonstrate this idea of ‘following’ as they did not conform but ‘hazard’ the improvisation, transforming a fixed educational requirement into a personalised trajectory of movement. One way the participants improvise is by ‘swiping’ their way through the gazer’s gaze. As one student shared, ‘I will *swipe* the course to boost the score.’ The

expression *swipe* is directly translated from the Chinese term 刷 (pronounced as ‘shua’), which literally means ‘to brush’ or ‘to swipe’. In the contemporary context, the verb ‘shua’ often carries the connotation of repetitive, mechanical actions aiming at rapid completion. This phrasing signals a mode of MOOC engagement that is less about acquiring knowledge, and more about strategically gaming numerical outcomes. Over half of the participants, although they did not explicitly use the term “swiping,” described similar actions:

If the videos didn’t count towards a score, I might just copy others’ assignments. (Interviewee L)

I would intentionally put some comments in the discussion section, you know, to behave like a good student and get some points. (Interviewee C)

I often ‘hang’ the courses when I’m busy: I just open the required MOOC and make it play while I might be doing other things. (Interviewee X)

With their knowledge of the data algorithm behind the score, students engaged themselves in acts of ‘swiping’ or ‘hanging’—digitally-enabled practices that foreground outcome over process. Rather than following the steps set by the gazer, over half of the students adopt a new mode of engagement where they interact more with their data body than with their peers. They correspondingly return the gaze by improvising passages through and with the score indicator, ‘swiping’ shortcuts that diverge from pre-determined assumptions of networked MOOC learning.

When one is able to glimpse attempts of the gaze to contain, categorise, and judge, the machinations of data gaze become more visible (Thompson and Prinsloo, 2022). By attentively engaging with the data gaze, the students are also able to better see themselves and their learning practices as the ‘other’ sees them. One participant summarised the endless pathways they engage with the gazer: ‘It (the score) wouldn’t really motivate me to seriously understand the MOOC content; it would only motivate me to get a full score for the sake of the score itself.’ The interviewee’s awareness of the gaming strategies not only visualises the machinations of the gaze, but also renders them more resistible, negotiable and consequently amenable. In this vein, the gaze performs and is simultaneously performed by students’ improvisations. This finding—often overlooked in Western-centric MOOC research where participation is mostly voluntary—resonates with broader scholarship on ‘gaming’ practices prevalent in datafication research. In the Chinese university context, where MOOC engagement is often mandatory, students’ negotiations mirror Bradbury and Roberts-Holmes’ (2017) findings about data abuse in UK schools, where neoliberal pressure to produce performance metrics incentivises the manipulation of data rather than genuine engagement.

Conclusion

In conclusion, the data gaze on XuetangX is not static, but is a ‘line of becoming’ that unfolds between the threads of the gazer and the gazed. The gaze, both performing and being performed on, constitutes a process where the gaze, the gazer, and the gazed are all juxtaposed through hyphenated data-bodies that continually co-constitute one another in practice. This mandates recognising the agency of metrics while redesigning them to prioritise relational connectivity, so that data-led governance supports rather than displaces the lived learning experiences of students.

This paper also responds to the Networked Learning Editorial Collective’s (NLEC) call to redefine NL. Aligning with scholars’ critiques of the ‘forgotten dyad’ between the learner and their own mechanisms of acquisition (NLEC et al., 2021), this study uncovers the complex student-data entanglements and thereby demands a ‘more-than-human’ understanding of digital engagement. By revealing a landscape of negotiation within the student-data body, the findings suggest that networked environments do not merely connect resources or humans, but create invisible, reflexive tensions between students and data. Thus, the paper argues for an expanded NL framework that accounts for these messy, individualised correspondences with digital infrastructure.

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