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INEQUALITIES OF PROFESSIONAL LEARNING ON SOCIAL MEDIA PLATFORMS

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ABSTRACT

Professional learning on social media is generally framed as unproblematic, but the transition to these platforms marks a change as professionals' work is conditioned by their logic and economy. In this paper, our focus is how problematic inequalities of teachers' professional learning around access, participation and resources are produced as their professional exchanges is formed by social media participation. Three aspects of inequality have been examined. First, the performance of teachers' (un)equal professional opportunities; second, (un)equal access to resources; and third, (un)equal existential opportunities for professional development. We draw on examination of three-years of API data from a large teacher Facebook-group asking, who can participate (gender, location), what voices are heard (status, language), and how does the social media platform condition professional exchange and participation? Our results consider the opportunities and costs for teachers as individuals, professionals and intellectuals. They reveal problematic temporal aspects such as work intensification, and limited professional exchange, partly conditioned by the platform functionality.

KEYWORDS

Professional learning inequalities; Social media platforms; Facebook data

1 INTRODUCTION

The advent of social media platforms has provided opportunities for large-scale networks of professionals to share experiences and resources on a daily basis, and professional learning on such platforms has tended to be framed as relatively straightforward and unproblematic. Yet the transition to these platforms marks a change as professionals' work are conditioned by the logics and economy of social media platforms. These global internet platforms economically rely on massive amounts of user-generated content and data production. Technically, the platforms work as "online content-hosting intermediaries" (Williamson 2017, p. 62), and they have a profound political and economic impact on educational sector by introducing it to the business model and political economy of platform capitalism (Srnicsek 2016). Different platform domains on a micro-level shape the communication and function of user interaction and accessibility. As essential parts of schools and teachers' professional lives are formed by online professional exchange within these emerging platform contexts, problematic inequalities around access, participation and resources (co-)produced by social media platforms have become evident.

2 FOCUS AND QUESTIONS

In this paper, our focus is how problematic inequalities of professional learning are produced, in the transition to social media platforms and in the regulatory powers of social media participation. The approach is based on a critical sociological engagement with the domain studied. Our aim is to problematize the construct of social media participation as an equally assessible and democratic space by conceptualizing it as a place where different forms of inequalities are produced and intersect. Educational inequalities are

highly problematic for a democratic society and currently, professional development opportunities for public sector teaching are undergoing large transformations. A key transformation is the emergence of large professionally oriented social media groups where teachers discuss their practice. We seek to identify and unpack the forms of inequalities for professional learning that are produced through teachers' participation and interaction in such large-scale profession-oriented social media groups.

Three aspects of equality have been explored, widely focusing on "the capability of functioning fully as human being" (Therborn 2013, p. 41), including "freedom and knowledge (education) to choose one's lifepath, and resources to pursue it" (p. 43), in this exemplified by teaching professionals working online. Firstly, it concerns the performance of teacher professional's opportunities of (un)equal professional/life chances, secondly, (un)equal access to resources e.g. materially-infrastructurally and lastly, (un)equal existential opportunities of professional development, autonomy and respect in relation to norms of social media participation. In this sense, classical aspects of distributional and categorical inequalities have been used, that is, how educational resources are distributed to and among teachers as public sector professionals, and how categories like gender, location, language and 'voice' relate to these aspects.

We draw on a research project based on a 3-year 'big data' corpus of activity in a large thematic profession-based Facebook group as an empirical case collected in 2016. Questions raised are, who can participate (based on gender, location), what 'voices are heard' (status, language), how is the social media platform conditioning a professional exchange and participation?

3 METHODOLOGY

The methodological choice of a ‘big data’ approach follows from analyses of current research within educational science which largely has been limited to small-scale studies using self-reports or traditional interviews on how teacher professionals use social media for professional learning and networking (Macià & García 2016). The project mainly draws on a big data corpus covering all of the group activity of 13,000 members including all posts, comments, and likes from the group’s three first and most active years. The data was accessed by the Facebook Graph Application Programming Interface (API) and collected through the Facepy library (Gorset 2015) for the Python programming language. The project has used a combination of methods, mainly starting from computational content analysis and participant observation methods followed-up by surveys, interviews and in-depth interaction analysis. The data set has been aggregated and visualized in a variety of ways to examine different aspects of the group’s activities over time including group size, core members, temporal aspects like activity distribution, discussion topics, shared resources, norms and repertoires in the group (e.g. Lantz-Andersson, Peterson, Hillman, Lundin & Bergviken Rensfeldt 2017; Bergviken Rensfeldt, Hillman & Selwyn 2018).

4 ACCESSIBILITY AND RESOURCES AS (UN)EQUAL PROFESSIONAL OPPORTUNITIES

We base our empirical case on a Swedish example, a country that has undergone a distinct decentralisation and marketization of its school system since the 1990s. The decentralisation has resulted in a differentiated and municipalized situation where local conditions mainly determine what types of resources and digital infrastructures are

accessible for teachers and schools. The decentralised school system has led to devolved responsibility for teacher professional development (Parding, Berg-Jansson, Sehlstedt, McGrath-Champ & Fitzgerald 2017). Compared to other OECD countries, the allocation of work hours for teacher professional development in Sweden is around half of the average (OECD 2013). This situation has to a large extent left teachers’ individually responsible for dealing their professional development through distributed market choice and ‘forced freedoms’. The current situation also can explain why social media platforms constitute such an important and popular option for teacher professionals. Facebook in particular also has been a very popular social media platform in Sweden which make this a convenient and ‘equal’ choice for teachers in their professional life. The marketization of Swedish schooling has made the private digital platform sector highly visible and the internationally popular Google and Apple based one-laptop-per-individual movement has been a part of this, at least in regions with strong economic resources such as the bigger city regions. Interestingly, this may serve as a background to how our Facebook teacher participants are geographically distributed, where the majority live in urban and suburban areas. However, our analysis based on distinctions between urban/suburban and rural municipalities made in official statistics produced by the Swedish Association of Local Authorities and Regions/SALAR (2017) shows that the geographic distribution of top contributors in the group reflects the overall geographical distribution in Sweden (see Table 1).

Population	Urban/sub-urban	Rural
Top 50 contributors	37 (74%)	13 (26%)
Sweden (Statistics Sweden, 2017)	7,577,848 (75%)	2,542,39 (25%)

Table 1. Distribution of contributors with most posts and comments by municipality type (SALAR, 2017).

The geographic distribution of group members may reflect Sweden overall, but this may mask inequalities on local levels such as the differences within schools and between schools and teachers in the same municipality or school forms. In an interview with the group’s moderator, she expressed that what characterized the group of teachers was, “this need for professional development we have, for further learning, but always on our own terms and as a part of our everyday work, not because someone says, ‘this is what everyone should do now’”. The grassroots-driven, but also individually and self-regulated population of teachers gathered around a shared pedagogical theme forming a shared space that fit well with the logic of social media platforms. In particular, activity in the group followed the model of constant engagement, but also took advantage of the intermediary function and ‘free use’ of the digital platform that are such key aspects of the business model of platform capitalism (Srnicsek 2016). With platform capitalism, platforms like Facebook elicit social interaction and encourage users to engage in activity such as pressing like buttons and sharing photos to promote further activity and data production. While internet platform industries make use of teachers’ labour and data production, putting them in a constant loop of desirable engagement and feedback from algorithmic powers in much the same way they do with any other user, there are particular concerns in relation to inequalities of professional

opportunity. Examining our corpus in more detail, it is evident that on a daily basis, teachers engaged in the Facebook group as a form of extension of work, taking place during breaks, evenings, and holidays. As Figure 1 shows, 43% (6,945) of posts and comments on work days were made during the early morning or evening hours (before 08:00 or after 17:00) and only 32% (5,180) were made during working hours. Outside the hours depicted in Figure 1, 25% (4,038) of posts and comments were made on weekends and while peak months for contributions were at the beginning or middle of school terms, 11.5% (1,852) of contributions were made during the months of June and July, when schools are not generally in session in Sweden. Compensation for a lack of formal professional development opportunities with social media groups of the kind we have studied means that teachers are reliant on platforms that not only turn their digital work outside of work hours into a boundless professional assignment, but also into labour for large internet conglomerates. In this situation, differences in life situations and willingness to sacrifice leisure time and recreation lead to significant participation inequalities that influence different teachers’ possibilities for professional learning.

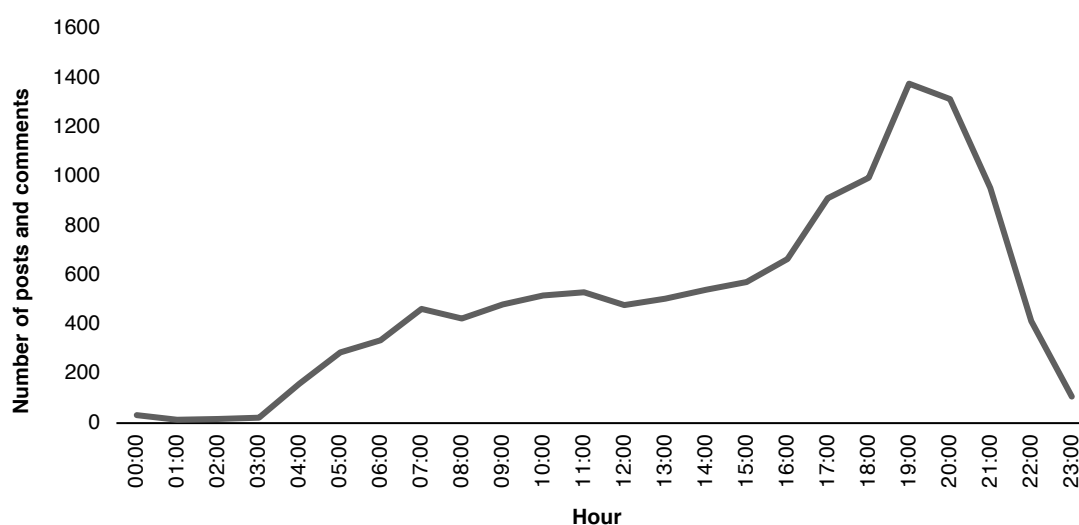


Figure 1. Posts and comments on weekdays during the school term by hour.

5 PARTICIPATION IN/EQUALITIES

One way to understand possible participation inequalities produced in the Facebook group, has been to analyse aspects of status and language, including the gender distribution of male and female active voices. Based on a comparison of the first names of group members with data from Statistics Sweden (2017), we assigned a gender to each activity within the corpus. Our analysis of the average length for posts and comments showed that women used 23.5 words while men used 37.1 words, that is, men took nearly the double amount of the active voice space (see Table 2).

Gender	Posts and comments	Top 50 contributors	Average word count
Women	10,948 (65.5%)	30 (61.2%)	23.5
Men	5773 (34.5%)	20 (38.8%)	37.1

Table 2. Comparison of posts and comments in the group by women and men.

In this way, there seems to be little difference in gender inequalities on the digital platform compared to the offline world,

however, based on calculations of who claims most space, a different pattern can be seen, however with regard to the top contributors in the group. The number of women and men among the top 50 contributors is proportionally similar to the overall number of posts and comments contributed by women and men respectively (see Table 2), but this distribution is skewed with all the top 10 contributors being women. To some extent this is visible in the gendered nature of the content of members posts and comments. Performing emotional work in a teacher Facebook group is also to perform one's profession. This norm, performed by the teacher professionals further adds to the powerful features of the social network effects of the digital platform as moderators and other top contributors are encouraged by the platform functionality to conduct more social and emotional labour (Arcy 2016). While contributions of all kinds can be found by both women and men, at an aggregate level, those of women tend to be shorter and less critical or explanatory than those of men. Our analysis shows that supportive comments in particular tend to be much shorter than those offering critique or explanation (see Figure 2).

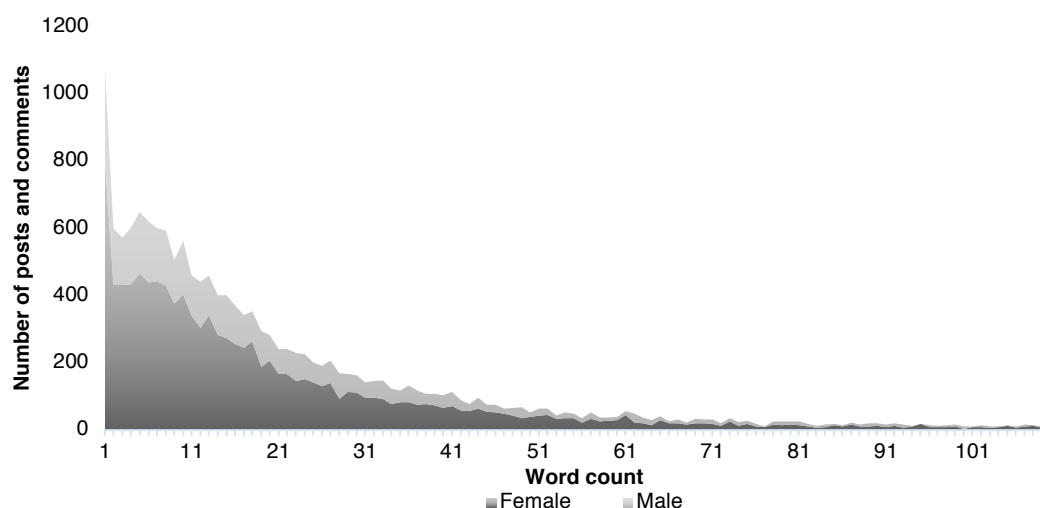


Figure 2. Distribution of posts and comments by word count and gender of contributor.

Furthermore, and that despite women making up more than 70% of group members, posts and comments of 80 words or more are posted in roughly equal numbers by the two genders. As education is such a crucial part of a society's development and the democratic opportunities and life chances of people, it is problematic that gender inequalities in educational contexts are continuously reproduced. An equal access to digital platforms should also include equal access to a communicative space. Social media participation, however, does not seem to disrupt or change the gender distribution of voices being heard in our example. This suggests that teacher professionals' engagement and self-organization on social media platforms should be problematized by teachers and moderators themselves beyond the polite norms of the profession and social media 'netiquette'. Equal distribution of opportunity to speak is of vital importance for all teacher professionals as is encouragement to conduct intellectual work in spaces such as large-scale Facebook groups. While there are clear gender differences in the character and length of posts and comments visible in our corpus, we should make the point that such data extracted through APIs are always biased towards active users who actually like,

post and comment. 'Lurkers' and other 'silent reactions' are not represented and, in this way, our corpus is not an exhaustive record of the activity or interactions of group members who may very well react and interact in a multitude of ways that go unrecorded.

One indicator of activity taking place outside the platform that is visible in the corpus is hyperlinks to other online resources. Since the language of the group is Swedish but the topic of the group is international, it is possible to see which resources are in that language versus others. This gives some indication of the relevant discourse outside the group that is conducted by group members and professional associates and the relevant discourse produced by or with an orientation to the international topic space.

Our analysis shows that Swedish dominates as the language of 84% of the blog posts linked to in the group (See Table 3).

Resource type	Swedish	Other
YouTube video	55 (58%)	40 (42%)
Blog post	185 (84%)	34 (16%)

Table 3. Indicators of language of posted resources.

This indicates a local discussion that extends beyond the group. Further analysis of the blog posts themselves reveals that a great

many are written as longer reflective pieces of writing or reports of classroom practice by the members who posted them. Similarly, in terms of videos linked to or posted in the group there is a preference for Swedish language content with Swedish indicated as the audio language in the YouTube database for 58% of the videos. Further analysis of the videos themselves reveals that like the blog posts, those in the Swedish language are often produced by the posting member and consist of content used by that teacher in their professional practice.

However, with only a few exceptions of videos in Norwegian and Danish, the remaining 42% of YouTube videos posted are in English and generally take the form of instructional or inspirational content aimed at teachers with an interest in the topic of the group. In this way, many of the voices heard through the resource linked to in the group are those of the teachers themselves sharing their practices and perspectives. However, a significant amount of discursive space is taken by international voices contributing with less practice-oriented perspectives on the topic. Generally, these posts also receive less attention in terms of discussion perhaps because of a perceived distance to the language space and voices of other professional contexts.

Our results from analysing overall group participation show that members generally reacted with appreciation to posting of resources such as blog posts and videos. In many ways, the social platform enabled a professional exchange which otherwise would not be available in other forms for teachers in Sweden. However, the platform only supports certain forms of participation that can be most often characterised in contrast to more traditional professional development activities as relatively passive consumption of content. For example, of the more than 13,000 members in the group during the three years that we studied it, only 7.5% ever included a link to an external

resource in a post or comment. There were also few deeper reciprocal exchanges with only very few discussion threads lasting over several days or consisting of more than 100 comments. Here, a number of concerns arise from our data relating to the restricted ways that teachers were able to work as skilled, engaged and intellectual professionals online. For instance, while teachers were 'free' to engage with the group in any way they pleased, rather than being an accessible repository of accumulated expertise, Facebook presented a narrow selection of content to teachers who often made efforts to disrupt the platform's logic by creating markers such as 'follow' and '.' in comments so that they would be alerted to ongoing conversations of interest. The group was characterised by users' passive interaction with the online content determined (to a large extent) by the platform's algorithms and regulatory powers rather than teacher expertise.

6 DISCUSSION

What are the implications of social-media based professional learning in terms of inequalities of accessibility, and for professional and existential opportunity? Are there likely longer-term implications of how these emerging digital platform spaces are enabling or restricting professional self-development, freedoms, and intellectual exchange? The activity levels in the group we have analysed are high, but from an intellectual and existential opportunity perspective on the professional development, the general character of discussion is notably superficial, social-emotional, and often gendered in favour of men's dominance as active voices. Even if women's social interaction labour makes the social media based professional learning productive, this labour is also profited on by platform business logic, in that sense the inequalities of "gendered labor is extended in the digital media economy" (Arcy 2016, p. 366). The status of

teachers in relation to the platform is also problematic with Facebook offering the platform, but profiting from the work associated with public sector state funded professional teachers' active participation. As platform industries like Facebook are "becoming owners of the infrastructures of society" (Srniczek 2016, p. 96), Williamson (2017, p. 62) warns that, "platforms designed in the commercial sector may in future years increasingly intervene in and rework public education at massive scale, both within and beyond state control".

As researchers, we also profit from publicly available large-scale Facebook data collected at a time before such data collection was questioned. The corpus is based on a single and limited case where the group moderator could grant access. Other contexts or circumstances associated with conducting social media research on teacher professional's Facebook participation may lead to different conclusions. Comparing the context we have examined to other similar European or non-European contexts of teacher professional learning, offers an opportunity to understand teachers' multi-sited activities across different digital platforms.

Social media platforms are often discussed as an opportunity to replace 'traditional' professional learning and as a way to reduce spending on formal courses or time for workplace learning in the underfunded public sector. However, these possibilities come with realities of distributional and categorical inequalities. Access, participation and resources in relation to digital platforms raise the spectre of problematic inequalities for the profession. Added to this, there is also the cost of 'free' often gendered labour on the part of teachers as they engage and perform the ideal professional learner. These changing conditions for teacher's professional learning result in problematic temporal aspects such as work intensification, resulting in a competitive individualized neoliberal performativity. Similarly, extended dialogue, listening-and-responding, democratic exchange and

genuinely public and intellectual debate amongst professionals and of both sexes are rare. There are also risks for isolated and instrumental professional development for teachers as individuals, and less focus on their position as professional colleagues and 'public intellectuals' within society more broadly. The context reported on here relies on trust in teachers' will to develop and network as professionals, stakeholders like school management, politicians and parents have reduced insight into teachers' voices and professional commitments. Similarly, a move away from traditional professional development to informal and often ad hoc online groups also makes it hard for teachers to influence and change their current situation on a collective organized professional level or on a workplace basis. In that sense, social media platforms may function as 'sites for the cultivation and deployment of neoliberal subjectivities that prioritize entrepreneurialism, self-sufficiency, a willingness to work anytime and anywhere, and instrumental relationships towards institutions and other human beings' (Bengtsson 2016, p. 222-223). While some participants might consider these to be desirable characteristics, they are certainly counter to the senses of obligation and reciprocity that one would commonly associate with notions of 'community' and 'solidarity' within professional groups drawing on trust and mutuality.

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