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**Education as a Co-developed Commodity in Finland? A Rhetorical Discourse Analysis
on Business Accelerator for EdTech Startups**

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ABSTRACT

Education business and the actors involved in it have gained increasing global attention. However, little is known about the commercial actors participating in mainly publicly maintained comprehensive schooling in Finland and how the roles of teachers and schools are seen in this edu-business. In this article, we analyze ‘edu-business acceleration’ by a Finnish company, xEdu, that develops (mainly) EdTech startups for the global education market. Using rhetorical discourse analysis, this case study identifies and analyzes xEdu’s aims for EdTech business in Finland, focusing particularly on the role assigned to teachers and schools in the business. Through these discourses, xEdu wishes to ‘scale up’ Finnish comprehensive schooling by utilizing both the reputation of Finnish education and the expertise of Finnish teachers. Building on a framework of the global education industry, we discuss the dominant EdTech discourses surrounding Finnish comprehensive schooling and how they are legitimized and promoted by versatile rhetorical means.

KEYWORDS: Global education industry; education technology; business acceleration; Finnish comprehensive schooling; rhetorical discourse analysis

Introduction

The business surrounding education technology (EdTech) has become a global trend, reaching out to education systems at various strengths and depths. This paper explores the ideas that xEdu, an EdTech business accelerator company, seeks to integrate into schooling in Finland, as well as the roles assigned to teachers and schools. Furthermore, by employing rhetorical discourse analysis (RDA), the rhetorical means utilized by xEdu to establish their argumentation and credibility are examined. The Finnish context for researching edu-business

activities is particularly interesting due to its limited presence of private actors in comprehensive schooling (for 7–15-year-olds), as the Basic Education Act (628/1998, § 7) restricts opportunities to establish private schools and prohibits providing basic education for financial gain. Additionally, the National Core Curriculum of basic and general upper secondary education outlines that education and schools should not be used for commercial influence (Finnish National Agency for Education 2016).

Despite these restrictions, private actors with commercial interests have entered the field of Finnish comprehensive schooling, particularly since 2015, advocating for the development of an ‘edu-ecosystem’ in the country (Seppänen et al. 2020; Seppänen, Thrupp, and Lempinen 2020; Lempinen and Seppänen 2021). Driven by the growth potential of the EdTech industry and supported by global investment capital (Williamson 2018; Player-Koro 2016; Williamson 2022), various edu-business actors, including long-established publishing companies, other commercial entities, and state actors, have entered the field. The growing use of digital technology in Finnish schools has boosted commercialization opportunities (Tervasmäki and Tomperi 2018; Seppänen et al. 2020; Lempinen and Seppänen 2021; for commercialization, see Hogan and Thompson 2017). These opportunities further expanded during the COVID-19 pandemic in Finland (Kiesi and Hogan, forthcoming), reflecting the global trend of ‘edu-business expansion’ that occurred in the same period (Williamson and Hogan 2020; see also Williamson, Eynon, and Potter 2020; Williamson, Macgilchrist, and Potter 2021). The actors in edu-business in Finland view education as a commodity, particularly for international markets (Seppänen et al. 2023), and thus wish to be part of the global education industry (GEI; Verger, Lubienski, and Steiner-Khamsi 2016).

xEdu, a business accelerator company founded in 2015, is one of the small yet prominent private actors in the Finnish education sector and has identified profit-making opportunities in the EdTech business (Seppänen et al. 2020). Business acceleration refers to a development program designed to support startup companies in starting a business. In the case of xEdu, the acceleration program – which is a form of business itself – targets such startup companies that aim to create ‘transformative learning solutions with pedagogical impact’ (xEdu 2015a). The company is led by a former Nokia employee who was promoted as ‘one of Finland’s most respected influencers in the field of education [business] also abroad’ (Zeroten Oy 2018) once his later company, EduImpact Venture Capital, was launched. Recently, xEdu has focused on international education startup acceleration by launching a new ‘on-site’ acceleration program called ‘NextEdu’ in Italy in early 2022 with a focus on Italian and European startups. Furthermore, at the beginning of 2023, xEdu introduced an incubator program named ENTER EdTech to assist startups in the early stages of development in ‘creating a startup in the educational technology niche’ (xEdu 2023).

In this article, we argue that xEdu exemplifies several GEI processes at local and global levels, as described by Thompson and Parreira do Amaral (2019, 8–12). These processes include economization (using economic language in education), commodification (creating tradable commodities), marketization (producing market readiness), privatization (transferring public funds to the private sector), and financialization (dependence of education on finance capital). All these processes are tied to the digitalization of education, which is seen as ‘a key driver of the global market in education’ (Thompson and Parreira do Amaral 2019, 11–12; see also, e.g., Nivala 2009; Player-Koro 2016; Williamson 2016; Selwyn 2016b; Macgilchrist, Allert, and Bruch 2020). In other words, the GEI processes reflect a ‘technocentric’ (Papert 1987) approach

to education that favors technological ideas, practices, and innovations as central solutions to educational challenges.

In Finland, little is known or discussed about how commercial actors intend to influence schooling and, consequently, teachers' work. In other countries, the extent of digitalization and commercialization in education has raised concerns about the impact of commercial actors on teaching and learning (e.g., Biesta 2013; Roberts-Mahoney, Means, and Garrison 2016; Hogan, Thompson, et al. 2018; Hogan and Lingard 2019; Selwyn 2019; Mertala 2020; Thompson et al. 2021; Shelton et al. 2022). In this article, we² use discourse analysis to analyze xEdu's aims for EdTech business in Finland and the role assigned to Finnish teachers and schools in this business and RDA to further identify the rhetorical means by which xEdu promotes and legitimizes these aims. Our focus is on the 'edupreneurial EdTech discourses' that shape the notion of an ideal teacher for the digitalized classroom (Ideland 2020). We argue that business acceleration in education employs various rhetorical means to strengthen its arguments for integrating business values and practices into schooling. Our results suggest that this takes a distinctive form in Finland due to xEdu's commitment to state-provided education and high appreciation of Finnish teachers, who are seen as the world's best validators of EdTech products. This paper advances the understanding of the local EdTech efforts highlighting how the EdTech sector strives to reconcile local and global perspectives. It demonstrates how xEdu draws on local competitive advantages – the esteem for Finnish teachers and public education – to meet its aspirations for global expansion. Thus, this paper provides valuable insight into how local strengths are utilized in the global EdTech industry.

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xEdu and business accelerating activities in the global education industry

Among the various actors operating in the GEI, business accelerators are considered ‘sites for cultivating ideals of entrepreneurship’ (Ramiel 2019, 490; see also Parkkari 2015). This is achieved through business acceleration, which refers to ‘a fixed term, cohort-based program, including mentorship and educational components, that culminates in a public pitch event or demo-day’ (Cohen and Hochberg 2014, 4). Business accelerators select startups for their acceleration programs based on their perceived business potential to find ‘market-based solutions’ (Ball 2012, 66) to address today’s societal and educational challenges. Through this ‘social capitalism’ (Ball 2012, 77), business accelerators seek to find people with innovative business ideas that can generate either social outcomes or profits.

xEdu’s acceleration program includes various business-building activities, such as lectures by edu-business experts, business ‘sparring’ with other startups and in-house companies, and coaching and mentoring from individuals appointed by xEdu (xEdu 2015b). Their program also promises a ‘co-creation & co-design process together with public schools in Finland’ (xEdu 2015a). Furthermore, xEdu promotes networking of edu-business (Williams 2002) by hosting the annual XcitED event for EdTech companies as part of the world-renowned startup event SLUSH, which shows how business rhetoric, logic, and practices are becoming increasingly relevant in the field of education (Candido, Seppänen, and Thrupp 2023). These activities aim to generate business by supporting startups and launching their scalable products in the (international) market. Regarding funding, xEdu does not finance startups directly but instead helps them find funding by connecting them with potential investors. This means that startups participating in business acceleration have access to global venture capital (Ramiel 2019) through xEdu’s investor network, which includes investors such as Courage Ventures,

LearnCapital, and Rethink Education (xEdu 2015d). In return for the business acceleration services they offer to startups, accelerators seek to profit from these actions to finance their own operations (Hyrkäs 2016, 87–104). For example, xEdu takes at least 3% equity from each firm they accelerate in exchange for their acceleration services (xEdu 2015c).

xEdu is a pioneer of Finnish startup entrepreneurship and the accompanying startup culture in the field of education, which embodies the ‘startup craze’ that swept Finland in the 2010s (Lehdonvirta 2013; Koskinen 2020). As the country’s first edu-business accelerator, xEdu has introduced a new business vocabulary, such as pitching, innovation, and the ecosystem, into the Finnish educational field (Kiesi and Nivanaho 2019; for pitching, see also Hyrkäs 2016). This ‘Silicon Valley vocabulary’ integrates the education sector into the business world where different social and economic problems are considered fixable by accessible, flexible, and cheap technological solutions (Williamson 2018; Ramiel 2019; Wright and Peters 2017). Selwyn (2016a, 442) cautions against the exclusive use of fabricated ‘buzzwords and taglines’ in ‘Ed-tech speak’, as they ‘distort discussions of education and technology’. The result is that education becomes a service or a commodity with students and parents as customers, and public funding as incentives to provide a wider range of services (Adamson, Åstrand, and Darling-Hammond 2016, 11; Knox, Williamson, and Bayne 2019).

xEdu and boundary spanning in education

This case study examines the aims and actions of xEdu within the context of the global trend of businesses seeking legitimacy and financial gain through public–private partnerships in government-funded education. This trend is characterized by the blurring of boundaries between education as a public good and as a business opportunity (e.g., Ball and Youdell 2008; Hogan 2015; Ball 2012; Ball and Junemann 2012). Key to this process are ‘boundary spanners’,

organizations, and individuals who operate and influence across different sectors and industries (Williams 2013, 2002, 104). In the Finnish education context xEdu and its CEO serve here as an example of a boundary spanner, with networks and activities that extend beyond the boundaries of various organizations in diverse sectors.

Boundary spanners often work within international cooperation networks. These networks have gained increasing political influence as education companies have achieved credibility as education promoters (Ball 2012). Networked organizational relationships and the creation of these networks are at the heart of the activities of edu-business accelerators like xEdu. xEdu is a member of an extensive Global Acceleration Network (GAN) and an international association Worlddidac, both of which bring together their members to promote shared visions of edu-business (xEdu 2017, 2018). Furthermore, xEdu's acceleration program has contributed to the steady expansion of its network, increasing the company's 'network capital' (Urry 2007; see also Hogan 2015) and its influence within these networks. As a central actor in these networks, xEdu has the potential to shape the creation and circulation of tacit knowledge within them (Urry 2007, 223). Given its growing network capital, xEdu may potentially become a 'global creature' with increasing transnational influence (Verger, Lubienski, and Steiner-Khamsi 2016, 2).

Recent studies have underscored an increasing trend of boundary-spanning activities within the Finnish education context, primarily due to the growing cooperation between edu-businesses and the public sector that often aims at product development and educational export (Kiesi 2023; Lempinen and Seppänen 2021). This is reflected in Finland's aspiration to become a global hub for 'new pedagogy and digital learning' since the mid 2010, where teachers and students are expected to evaluate products, providing mutual benefits for both the companies

involved and the broader Finnish edu-ecosystem (Seppänen et al., 2023). Consequently, Finnish teachers are increasingly engaging with new market-driven ‘policy cycles’, (Player-Koro, Bergviken Rensfeldt, and Selwyn 2017) as testers, users, and providers of products and services, mirroring trends observed in other countries (Manolev, Sullivan, and Slee 2019; Biesta 2013). A growing body of research examines the potential consequences of boundary-spanning activities on the professionalization of teachers. Some studies have argued that such activities, which involve outsourcing teaching responsibilities, may lead to ‘de-professionalization’ by reducing teachers’ professional autonomy and emphasizing a standardized curriculum and productivity assessments (Hogan, Enright, et al. 2018; Hogan and Lingard 2019; Thompson et al. 2021). In Finland, teaching professionals have had a high degree of autonomy, supported by Finnish educational scholars who oppose educational accountability measures like standardized curricula and school inspections (e.g., Simola et al. 2017, 129). It is therefore interesting to examine how xEdu positions Finnish teachers as it promotes the growth of edu-business in comprehensive education.

In our examination of boundary spanning within edu-business acceleration, we employ the concept of ‘teacherpreneur’ to understand the role of teachers. Berry, Byrd, and Wieder (2013) and Berry (2015) were among the first to introduce teacherpreneurs into academic literature, referring to classroom experts disseminating their ideas and practices to various stakeholders around education while teaching students. Teacherpreneurs, as defined by Berry (2015, 147), serve as ‘virtual coaches, curriculum publishers and curators, student assessment analysts, edugame inventors, community organizers, policy researchers’ and can even create their own schools while remaining in the classroom. Later, this ‘expanded role for teachers’ in and beyond their schools, as proposed by Berry, Byrd, and Wieder (2013) and Berry (2015), has been

adopted with a perspective that views a teacherpreneur as an entrepreneurial teacher who creates new opportunities in the education industry (Buckley and Futonge 2016).

Rhetorical discourse analysis and the case of xEdu

This study employed RDA to examine how xEdu's CEO communicated the aims of the company to various audiences in Finnish society, including parliament, teacher students, and researchers from a university. The data consisted of text material from xEdu's expert report³ on the digitalization of comprehensive schooling for the Education and Culture Committee of the Parliament of Finland in 2015 (Expert report) [5 pages]; an online videotape material of xEdu's CEO's webinar speech⁴ to teacher students in 2018 (CEO's speech) [duration 27 minutes]; and a long interview⁵ with xEdu's CEO in 2019 (CEO's interview) [duration 1h 45 minutes]. Utilizing these three different materials, our study analyzed how these distinct formats construct a remarkably similar discourses through various rhetorical means, despite their differences in form, target audience, and context. While recognizing the importance of these differences, this study's aim was not to compare them, but to identify the common patterns that underlie xEdu's aims for the EdTech business in Finland. Moreover, these data were produced and collected during the 2015–2019 government of Prime Minister Juha Sipilä, whose education policy called for the effective incorporation of digitalization in education practices (e.g., Tervasmäki and Tomperi 2018; Lempinen and Seppänen 2021; Saari and Sääntti 2017). Although limited in quantity, these data provided extensive material for analysis and represented the types of

³ K 9/2015 vp SiV 24.06.2015 xEdu's expert report. Retrieved from <https://www.eduskunta.fi/FI/vaski/JulkaisuMetatieto/Documents/EDK-2015-AK-7511.pdf>

⁴ The xEdu's CEO's speech was filmed by the Teacher Student Union of Finland in their webinar called 'After the digital leap' held on March 26, 2018.

⁵ The interviews were conducted by four researchers from the University of Turku, who worked on the research project focusing on private actors in education. The interview questions focused on commercial actors' participation in public education and on public–private partnerships in comprehensive education.

materials commonly used in discourse analytic studies (Potter 2004, 612–615). Our sampling approach, following Mason (2002), used an evocative or illustrative method. Our focus was to use a systematic RDA of individual accounts to reveal new insights and perspectives. However, it is worth noting that, as a qualitative method, RDA is not designed to generalize findings to a larger population or context (Creswell 2009).

In this study, we used RDA to analyze xEdu's aims for the EdTech business in Finland and the assigned roles for Finnish teachers and schools and to identify the rhetorical means xEdu uses to promote and legitimize these aims. RDA is a method that combines rhetoric and discourse analyses to examine how language is used to construct meaning (Jokinen 1999). Discourses refer to established practices of speech that shape and produce the phenomena they describe (Billig 1991; Siltaoja and Vehkaperä 2011, 209–211), while rhetorical means refer to strategies used to build arguments and reinforce their legitimacy (Potter 1996). Legitimization is the process by which actors consciously or unconsciously seek to accredit or license a type of social behavior (Reyes 2011). Our analysis builds on Alvesson's (1993) ideas on the role of rhetoric in organizational communication.

To conduct the RDA, we used NVivo software. First, we coded, reduced, and clustered the transcribed text material into three discursive themes that highlighted xEdu's business aims and the role assigned to Finnish teachers and schools in the business. These themes were grouped into more explicit EdTech discourses that contributed to constructing and producing the discursive themes. Next, we identified and described the most commonly used rhetorical means by which xEdu legitimizes its aims using the classification criteria of Jokinen (1999), the analytical framework of Komulainen et al. (2019), the fact-building strategies of Potter, Wetherell, and Chitty (1991) and Potter (1996), and the work of Billig (1987, 1991) on rhetoric.

Translated original excerpts are included in the results section to crystallize the content of each discourse and to illustrate the rhetorical means emphasized in each discourse. The analysis was conducted in Finnish – the original language of the data.

Findings: Education as a co-developed commodity

The aims of xEdu, along with the roles they assign to Finnish teachers and schools in the business can be divided into three discursive themes: (I) education as a business, (II) co-development of educational services with schools and teachers, and (III) teachers toward teacherpreneurs. These discursive themes are further explored through more detailed EdTech discourses, as presented below. Additionally, the next section introduces the most frequently employed rhetorical means (hereinafter referred to as rhetorics) used to legitimize the discursive themes and discourses. Table 1 presents the frequency of each rhetorical means in the first column for all discursive themes, and the remaining columns compare the use of rhetorics across the discursive themes.

Table 1. The proportions of rhetorical means in discursive themes

Rhetorical mean	All discursive themes		I. Education as a business	II. Co-development of educational services with schools and teachers	III. Teachers toward teacherpreneurs
	n	%	%	%	%
Emphasizing the speaker's expertise	58	15.8	16.0	15.0	17.4
Consensus by corroboration	53	14.5	5.6	22.2	15.9
Examples and parallels	49	13.4	13.2	16.3	7.2
Consensus by appealing to the listeners' interests	48	13.1	13.2	10.5	18.8
Categorization	45	12.3	11.8	9.8	18.8
Quantification	45	12.3	16.7	13.1	1.4
Factualization	41	11.2	13.2	7.8	14.5
Distancing oneself from own interests	17	4.6	4.9	4.6	4.3
Close-up view	10	2.7	5.6	0.7	1.4

Note. Total of rhetorical means, N = 336.

I. Education as a business

The discursive theme ‘education as a business’ focused on statements and discourses that emphasized the financial potential of the education sector and the role of edu-businesses in creating essential solutions for education. One of the key rhetorics used to legitimize education as a business was *quantification* (Table 1); financial investments and potential revenues were frequently mentioned. This rhetoric by xEdu was further reinforced using *examples and parallels*, such as referring to the success of technology companies that position education as a marketable product. By utilizing these rhetorics, xEdu’s CEO sought to *emphasize his own expertise* and credibility in the field. Furthermore, the products chosen for xEdu’s acceleration process were marketed as solutions for pedagogical efficiency, emphasizing the intersection of financial production and educational aims. This approach was legitimized through *consensus by appealing to the listeners’ interests*, including the suggestion that adopting technology in education is both inevitable and practical for teaching work. Therefore, it is in the best interests of listeners to be on board with these changes. Finally, *factualization* was prominent in the data, presenting education as a business opportunity that could not be ignored with statements made with certainty and objectivity.

Business Potential of Education Industry: $\Sigma \text{€ (Edu)} = 3 \times \Sigma \text{€ (ICT)}$

Economic thinking, norms, and procedures that position Finnish schooling within the realm of business were evident in the research material. By utilizing the language of economic transactions in education (*economization*, Thompson and Parreira do Amaral 2019, 8–9), the

education sector is portrayed as part of a global market environment. As in the statement below, xEdu's CEO believes that the education industry will surpass the IT sector by three times:

[...] when I entered the world of startups, I found that equation. [$\Sigma\text{€ (Edu)} = 3 \times \Sigma\text{€ (ICT)}$]. And it was just an incredible equation for me because I couldn't comprehend that it can be true. This equation means that education, in the area of social activities, the amount of money spent on education per year is three times bigger than the whole information and communication technology. (CEO's speech)

The above quote also exemplifies the use of *quantification*, which is employed in this discourse to create a consistent and measurable impression of potential financial gain. xEdu's CEO further reinforces his arguments using *examples and parallels*, effectively demonstrating the business potential of the education industry. Additionally, *factualization* is employed to argue that the development and expansion of edu-business are crucial to the continued success of Finnish education.

Furthermore, xEdu's CEO suggested that the public sector adopt more business-friendly financing models, directing public funds toward the private sector (*privatization*, Thompson and Parreira do Amaral 2019, 10). It was argued that this would attract private sector entrepreneurs and investors to enter the education sector, considered a promising field of investment in the future. When discussing education as an investment, xEdu's CEO used the rhetoric of *emphasizing the speaker's expertise* by referring to Silicon Valley vocabulary and his 'insider knowledge' of the edu-business field and potential partners to build trust with listeners.

The role of digitalization in the future of edu-business

The future of edu-business was found to be reliant on digital applications, services, and solutions that promise cost-efficiencies for both individuals and states. *Digitalization* was perceived as a means to ‘optimize and individualize learning’ while also contributing to the *financialization* of education (Thompson and Parreira do Amaral 2019, 10–11). xEdu’s report to the parliament of Finland notes that integrating digital tools into education is inevitable and could benefit those who invest in product development:

The digital revolution will inevitably come to learning as well. Capital has already noticed this. For example, LinkedIn bought Lynda (an online learning company) in April for \$1.5 billion. If Oy Suomi Ab [the Finnish state as Ltd] now uses the digital revolution and the revolution brought by the curriculum reform correctly, we have the opportunity to start building a ‘new Supercell’ [Finnish mobile game development company with a revenue of 1.3 billion euro] in the area of learning. (Expert report)

The report highlights that the digitalization of education is seen as a global competition, as noted in the following statement:

If Oy Suomi Ab doesn’t do anything, the education exports will come in any case – as education imports from the USA to Finland. It comes with digital products built with US capital, where the service providers are American growth companies, and Finnish taxpayers are left with the role of the payer. (Expert report)

Claims of technology’s strong and inevitable impact on revolutionizing education and other fields for financial gain relied on *factualization*. The inevitable arrival of technology was strongly stated by using *consensus by appealing to the listeners’ interests* and implying that the change is coming and ‘you’ should be on board. Furthermore, xEdu emphasized the need for

pedagogical credibility in their acceleration program, establishing the legitimacy of EdTech and promoting the utility of digital applications. They used pedagogy as a business strategy, highlighting their unique approach to edu-business and differentiating themselves in the global field, as seen in the following statement:

[...] what specifically sets us apart from business accelerators around the world is that they often operate with this technology side of the business side ahead, and we try to keep this pedagogy in it because it enables you to show its effectiveness. (CEO's interview)

Finally, the discourse of education as a business highlights the role of startups, particularly EdTech startups, as potential producers of innovative solutions in the education industry. Startups are presented as vectors for the *commodification* (Thompson and Parreira do Amaral 2019, 9) of education as they develop novel solutions that can be traded in the market. Furthermore, the argumentation revolves around the idea that startups have the potential to maintain Finland's reputation as a 'superpower in learning'. This metaphor *categorizes* Finland as a leading country in the field and underscores the need to maintain this position amid digitalization and changing market conditions. This *categorization* positions Finland as a global leader in education and enhances the prestige and credibility of startups operating within the country and their services:

[...] if we think about the fact that Finland has been a superpower of learning and now, with the digitalization, where those best solutions come from in the future, it may be that even more of those solutions come through those startups. Therefore, to remain a superpower in learning, we must also have these startups. (CEO's interview)

II. Co-development of educational services with schools and teachers

The second discursive theme focused on discourses that characterized education and schools as a service rather than solely a physical location. Furthermore, the discursive theme spotlighted a diversity of forms of collaboration between xEdu and its public and private partners, aimed at enhancing existing educational services and creating new ones. Arguments in this theme were legitimized through various rhetorics (Table 1), enhancing the credibility and perceived value of xEdu's arguments while positioning co-development as a solution to improve education quality by incorporating business strategies and practices. The use of *consensus by corroboration* was key to legitimizing this theme, with xEdu's CEO relying on direct quotations, collective pronouns, and expert opinions to present the argument in a way that is supported by multiple parties and not just his viewpoint. Additionally, by providing specific examples of successful co-development models, the speaker used *examples and parallels* to illustrate the potential and practicality of this approach. By *emphasizing their expertise* and relevant experience and qualifications, the speaker strengthened the credibility and perceived value of their proposed solutions to the challenges within the field.

The shift toward education as a service

Education was positioned as a vital service in building both individual well-being and social prosperity. As such, schools were positioned as active participants in the market and encouraged to develop (digital) products for market readiness (*marketization*, Thompson and Parreira do Amaral 2019, 9–10). This approach aimed to achieve financial development and overall well-being on a global scale by incorporating business strategies and practices into the education sector.

Will education remain a similar analog fortress, or will education become more digital?

The City of Espoo currently says, 'School is not a place. School is a service' that school is no longer just a place, instead, you have to think of school as a service. (CEO's speech)

As above, the discourse also raised the question of whether education would remain 'an analog fortress' or shift to a digital approach. The speaker cited a city in the capital region of Finland as evidence of the shift toward education as a service, using *consensus by corroboration*. Additionally, through *categorization*, an old-fashioned school was depicted to argue that 'digital' teaching and learning methods can replace traditional 'analog' methods.

The discourse also highlighted the company's desire for diverse forms of cooperation, particularly with schools and municipalities. xEdu's CEO reinforced the importance of public–private collaboration through *examples and parallels*, such as the successful 'digital Kyky-torit' (talent markets) partnership with the City of Espoo. Here, schools and teachers actively participated in testing and developing products for the business accelerator. The *categorization* of 'developer teachers and principals' and 'forerunner schools' highlighted the active role of education professionals in these projects.

The discourse suggested that privatizing education, through networks and partnerships, would benefit 'all parties involved' in the 'mutual sparring and learning'. xEdu highlighted the need for private–public 'ecosystemic cooperation', citing its importance in enabling access to Finnish schools and international recognition opportunities for companies. This argument was made in light of the challenges in obtaining public funding for developing products for schools:

The gaming cluster, which has been in operation for about five years, clearly shows the benefits of mutual sparring and learning. The previous education export report proposed to the Ministry of Economic Affairs and Employment of Finland to set up a ‘collision facility’ (i.e. a business accelerator) and support it with EUR 1 million per year from MEAE funds. However, that has not happened, and that is why xEdu has now been set up with private funds to move things forward. (Expert report)

The Finnish education sector as a development platform for digital innovation

xEdu aimed to establish the Finnish education sector as a leading development platform for education industry companies. This was communicated through rhetorical means, such as *consensus by corroboration* and *consensus by appealing to the listeners’ interests*. The strategies were used to emphasize the strengths and opportunities of Finland’s education sector and position the company as a facilitator of digital innovation in the sector.

Finland is in the country rankings, in almost any rankings in innovations, at the forefront and when tied to this startup culture that Slush has brought, we can be a testbed, we can be the first reference market there. And for example, we had three companies from Silicon Valley in Kielisauna [Language sauna] last fall who wanted to come to Finland to develop. To get a reference, they have done that development work together with Finnish teachers. That’s how strong the Finnish brand is. (CEO’s interview)

As in the statement above, *emphasizing the speaker’s expertise* highlighted the market potential of Finland and the interest of Silicon Valley–based companies in Finnish education. Furthermore, the discourse emphasized the Finnish teachers’ and schools’ expertise as a source

of national pride and positioned the company as having access to that expertise and utilizing schools as a ‘testbed’ environment.

III. Teachers toward teacherpreneurs

The third discursive theme focused on the changing role of teachers and scholars in edu-business. While xEdu did not explicitly use the term ‘teacherpreneur’, their CEO’s discourse on the changing role of teachers shared similarities with the definition of teacherpreneurs by Berry, Byrd, and Wieder (2013) and Berry (2015). Specifically, xEdu’s CEO described a new role for teachers as facilitators of learning and digitalization, collaborators, and experts in areas where artificial intelligence (AI) could not replace them, such as socio-emotional skills. The concept of teacherpreneur aligns with the idea of facilitators of learning (Kirschner and Van Merriënboer 2013, 173; Knox, Williamson, and Bayne 2019) and indicates a move toward a collaborative approach to education. This discursive theme also highlighted the importance of incorporating teachers’ and academic scholars’ expertise to improve and validate educational services.

Table 1 shows what kinds of rhetorics legitimized the positioning of teachers as teacherpreneurs. *Categorization* was employed in defining a new kind of teacher who evaluates and develops educational products. Additionally, *categorization* was used to justify why Finnish teachers and their professional skills are particularly well-suited for working as teacherpreneurs. The speaker employed a strategy of *consensus by appealing to the listeners’ interests* to argue that digital solutions can improve teachers’ efficiency and help them devote more time to students who need special support. Furthermore, the speaker effectively *emphasized their expertise* in edu-business through professional language, including Anglicisms, to illustrate the international nature of the EdTech field. xEdu’s CEO also used this

strategy to share positive experiences from the education and healthcare industries to support the argument for the effectiveness of digital solutions in various sectors.

Changes in teaching and teaching profession

This discourse emphasized the integration of AI and big data in education, along with a focus on 21st-century skills promoted by the Organization for Economic Cooperation and Development (OECD), as key factors shaping the future of teaching (*digitalization*, Thompson and Parreira do Amaral 2019, 12). It was noted that the integration of AI and big data in the education sector is shifting certain teaching activities to technology while highlighting the importance of teachers' unique socio-emotional skills that cannot be replicated by software. As xEdu's CEO puts it, teachers are a 'beyond application interface'. Additionally, teachers are being reframed as bridges between the private and public sectors, with an emphasis on their ability to act as 'thought leaders' advocating for technology implementation in their municipalities, as stated below.

[...] we find those individual teachers, who are the thought leaders, who will make their municipality adopt a position and make the decision, that hey, we will start using this.

(CEO's interview)

The analysis revealed the use of certain rhetorics within this discourse, including *emphasizing the speaker's expertise* and *factualization* to promote the effectiveness of technology in addressing educational challenges. *Categorization* was also identified as a means of defining and legitimizing the evolving role of teachers.

Product validation through academic research and the expertise of Finnish teachers

While talking about the change in teaching and learning, xEdu's CEO emphasized the role of teachers and scholars in validating EdTech products, highlighting their expertise as a marketing tool for Finnish companies to attract new buyers to their products and services (*commodification*, Thompson and Parreira do Amaral 2019, 9). Here, xEdu's CEO used *consensus by corroboration*, citing specific organizations and academic researchers with whom the company has collaborated to validate EdTech products, as in the statement below.

[...] we put startups at the center, pedagogy most importantly up there and we collaborate with Kokoa [now called Education Alliance Finland]; Kokoa is the one validating that pedagogical effectiveness. And there has been [name of the professor] team from that university, with which we have done a lot. (CEO's interview)

Validation aligns with *evidence-based reforming* (Parreira do Amaral and Thompson 2019, 278–279) by utilizing evidence-based research to improve the education system. Demonstrating validated products and an evidence-based approach builds audience trust and credibility. Furthermore, xEdu's CEO highlighted the advantageous position of the Finnish education sector for startups due to Finnish teachers' advanced qualifications and expertise in validating EdTech products. xEdu's CEO acknowledged that the feedback provided by Finnish teachers on the effectiveness of EdTech products in the classroom is invaluable, as they have a deep understanding of the education system and student needs:

After all, the education sector in Finland can be a particularly good place for startups, because if you think about the fact that teachers have a master's degree here, they can give feedback on what works and what doesn't work in the classroom or kindergarten or adult education. (CEO's interview)

Additionally, the statement above is further legitimized through the use of *consensus by appealing to the listeners' interests* as a rhetorical means to align with the traditional Finnish education practice of trusting the professionalism of teachers. This approach allows the company not only to gather evidence from multiple sources but also to present it in a way that resonates with the values and priorities of the Finnish education system.

Conclusion

The RDA of an edu-business accelerator company showed how such edu-business companies intend to promote education as a co-developed commodity with schools and teachers in Finland – a country that is committed to public schooling and teacher education. This analysis provided a detailed examination of both the arguments and rhetorics supporting the integration of business values and practices into schooling. Using discursive themes and rhetorical means, we clearly represented the roles of schools and teachers in edu-business (discourses), and how these discursive themes were being reinforced (rhetorics). While conventional discourse analysis provides a valuable framework, it might miss the nuanced details, such as rhetorical means, used to promote and legitimize these discourses. In this paper, we discuss the concept and operation of business acceleration in education. Defined as the process of assisting startups in creating successful edu-businesses through mentorship and structured programs, business acceleration employs various rhetorical means to bolster its local competitive advantages. In Finland, these advantages are derived from the high appreciation and reputation of Finnish teachers and public education. These factors are also thought to aid in the global expansion efforts of the whole Finnish edu-ecosystem. Overall, these ‘edupreneurial ed-tech discourses’ (Ideland 2020) outline the ideal of a new, modern education system (Player-Koro, Bergviken Rensfeldt, and Selwyn 2017; Tervasmäki and Tomperi 2018) that recognizes the business

potential of education and the innovativeness of startup companies and sets the new role for teachers.

Based on the analysis, it is evident that organizations, such as xEdu, which promote edu-business wish to establish an edu-ecosystem that comprises private actors, state actors, and local municipalities responsible for organizing comprehensive education in Finland (see Seppänen et al. [2020] and Seppänen, Thrupp, and Lempinen [2020] for more information). In this logic of business, in the desired well-functioning edu-ecosystem, EdTech companies can test and develop products in an authentic education environment, i.e., in Finnish classrooms, known for their success in the Programme for International Student Assessment (PISA), and receive feedback from expert teachers. These arguments effectively employ the rhetorical mean of *consensus by appealing to the listeners' interests*, aligning with Finnish tradition of valuing teachers' professionalism. This not only promotes co-development within the edu-ecosystem but also emphasized the necessity of teachers' expertise in building a successful edu-business. As a result of this ecosystemic co-development, Finnish EdTech products also have the opportunity to succeed in the global edu-business market because, without a domestic 'reference', the products are difficult to sell abroad.

Another interesting finding is that while Finnish comprehensive education and teachers' achievements are recognized in EdTech discourses, their shortcomings are also highlighted, particularly in the digital future of learning. Such portrayals rely on the rhetorical mean of *factualization*, asserting the undeniable role of technology in revolutionizing education for economic benefit. Furthermore, these arguments are underscored as expert opinions of xEdu considered as a central player in global EdTech networks. This study strengthens the idea of digitalization as an over-arching discourse (Thompson and Parreira do Amaral 2019) that

legitimizes commercialization in schools (Hogan and Thompson 2017). The digitalization of education is envisioned as an inevitable part of schools to avoid becoming obsolete in future learning and global competition, especially in terms of economic growth (Saari and Sääntti 2017; Lempinen et al., under review). Such rhetoric suggests that Finnish schools are no longer solely for the public good but are harnessed as business opportunities (Hogan and Thompson 2017). In this context, schools become marketing devices, used as a testbed environment for pupils, who are regarded as both users (Ramiel 2019) and future customers (*commodification*, Thompson and Parreira do Amaral 2019, 9) of digital products. Furthermore, teachers who do not utilize new digital learning methods and services are considered to lack comprehension as regards the future of learning (Fullan 2001).

Overall, the case of an edu-business accelerator presented here illustrates a new desired role for teachers as ‘thought leaders’ and ‘boundary spanners’ (Williams 2002, 2013; Ball 2012; Hogan 2015) because they work not only as public education servants for the government and municipalities but also as product testers or developers and marketers for private companies. These ‘teacherpreneurs’ (Berry, Byrd, and Wieder 2013; Berry 2015) have an active role in the *marketization* (Thompson and Parreira do Amaral 2019, 9–10) of Finnish education by simultaneously working for the education industry and performing a public duty. In this way, Finnish teachers who are required to have a master’s degree can especially be good partners for edu-businesses, forming public–private partnerships (Ball and Youdell 2008) on a micro-level. These arguments tie in with the rhetorical mean of *categorization*. The ‘thought leader’ category emerges as a desirable role for teachers, contrasting with teachers resisting their new digital shifts (see also Ideland 2020). With their autonomy and ability to select teaching materials into their classrooms, Finnish teachers are targeted for marketing, considered to have the best know-how to professionally validate EdTech products, which in turn receive a stamp

of approval from world-famous Finnish teachers and schools. These findings imply that the commercialization of education may give teachers a more significant role in education policy because they can enable, promote, hinder, or resist commercial products in schools.

In conclusion, this study demonstrates that the strategic use of rhetorical means by edu-businesses has the potential to significantly impact the education landscape. By enhancing their legitimacy and reinforcing their discourses, edu-businesses can shape education to align with their objectives. Our findings raise thought-provoking questions about whether education should be developed as a co-developed commodity in Finland, given the current education policy prohibiting commercial influence in school and education. Therefore, further research is required to explore the role of commercialization in digitalizing education and its potential implications for maintaining the integrity and autonomy of the education sector.

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