

Universities and Unicorns project

Report 3 of 4

A critical analysis of investors' logic in business discourse

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1 Executive summary

A critical discourse analysis of communication of those investors' in education technology companies that are active in the higher education sector. The key findings are the following:

- EdTech investors and companies are rendered as opaque, abstract collectives, and are positively represented as 'enablers' and 'disruptors' of educational processes.
- Governments are rendered as generic, collective entities, and depicted as necessary funders of process of digital transformation.
- Universities or HEIs are mainly negatively represented as potential 'blockers' of processes of digital transformation, and they are depicted as failing their students due to their lack of scalability and flexibility.
- Individuals within HEIs are identified as numbers and increasing percentages within unified collectives, students routinely cast as beneficiaries in 'consumer' and 'user' roles, while educators are activated as 'content providers'.
- Metaphorically, the EdTech sector is conceptualized as a 'ship' on a 'journey' towards profit, where HEIs can be 'obstacles along a path' and the global pandemic and other push factors are conceptualized as 'tailwinds'.
- The EdTech market is conceptualized as a living organism that grows and evolves independent of the actors involved in it. The visual representations observed reinforce these patterns and emphasize the growth of the EdTech market in very positive terms.
- Push factors identified by investors driving the EdTech sector include the SARS-COVID-19 global pandemic, the digital acceleration being experienced in the sector prior to the pandemic, the increasing number of students requiring access to HE, and investors' actions aimed at disrupting the EdTech market.
- Pull factors encouraging investment in the sector are conceptualized in the shape of financial predictions. The visions put forward by EdTech investors become instrumental in the achievement of those predictions.

- The representation of the global pandemic is ambivalent and it is rendered both as a negative factor affecting societies and as a positive factor for the EdTech sector. The primary focus is on the positive outcomes of the disruption brought about by the pandemic.
- Educational platforms are foregrounded in their enabling role and replace HEIs as site for educational practice, de-localizing educational practices from physical universities.
- Students and educators are found to be increasingly reframed as 'users' and 'content providers', respectively. This discursive shift is potentially indicative of the new processes of assetization of HE.

2 Introduction

British Higher Education (HE), especially in England and Wales, has been witness to processes of marketisation since the early 1980s (Fairclough, 1993), while since the 2010s this process has been both consolidated and accelerated (Brown, 2015). The reforms responsible for that process are configured by an underlying rationale in which students are better addressed as consumers, private investment is required for the adequate expansion of HE, and, at the same time, students are also made responsible for contributing financially to sustain a fair HE industry (Brown, 2015; Williams, 1995). In the context of the current SARS-COVID-19 pandemic, the ongoing process of digitalization of HE has become a prominent area for social, financial and, increasingly, educational research. HE researchers agree both on the unpreparedness of countries and institutions faced by the pandemic, and on its potential lasting impact on the educational sector (Goedegebuure and Meek, 2021). In as much as Educational technologies (EdTech) have been brought to the fore due to their pivotal role in the enablement and continuation of educational practices across the globe, EdTech companies and investors have also become primary financial beneficiaries of these necessary processes of digitalization stemming from the effects the pandemic is having on a plethora of social dimensions. The relation between investors, EdTech and Higher Education institutions (HEIs), which before the pandemic was promoted and

emphasized, and evolved steadily in terms of investment, is now accelerated by the needs (partly) fuelled by and associated with the pandemic. New forms of digital capitalism are driving the merging between HE and existing political demands for universities to become more market-focused, competitive, and data-driven (Williamson, 2021). The extensive use and adoption of EdTech in order to bridge the gap between HE professionals and students due to the application of strict social distancing measures has been welcomed by investors as an opportunity for EdTech to establish themselves as key players within an educational landscape under a process of marketisation (Komljenovic, 2020, 2021).

While EdTech has enabled education on the whole to continue with more or less 'bumps' along the way, researchers call attention to important debates about the relationships between investors, EdTech, HEIs, and governance. In this evolving scenario, researchers have found, taking the perspective of HE staffs and students, that in the move to online teaching the loss of education as a communal, embodied experience is the most prominent fear (Eringfeld, 2021). Importantly, both learning and working conditions have suffered a significant (in many occasions negative) impact (Moja, 2021). More generally, from a financial perspective we are observing a new stage of capitalism, more aptly termed 'technoscientific capitalism' (Birch and Muniesa, 2020), which is evolving into a model based on assetization within HE contexts (Komljenovijc, 2020, 2021). Investors and EdTech are scaffolding new digital markets in HE, reshaping the conceptualization of universities, HE and the sector itself more generally (Williamson, 2021; Komljenovic and Robertson, 2016).

With the unprecedented adoption of EdTech in HE contexts, universities are collecting and storing unprecedented amounts of data from students and staff. While data privacy in this context is attracting important debates about civil rights, among other potential issues such as data monetization, ownership, and value redistribution, other pivotal aspects have received less attention. Within this project, we focus on how data value is captured in the HE sector, and the various ways that digital data is made profitable.

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The 'Universities and Unicorns' project seeks to shed light on the above issues, and its results will support an essential discussion of potential regulation that is needed to govern the digitalization of the HE industry, and also a clear theoretical rationale for value construction in the digital economy. In this report, however, we take a step 'back' to provide an overview of the logic inherent in the EdTech market. With this objective in mind, in this study we use a critical approach to multimodal discourse (Machin, 2007) to better understand the underlying motivations of EdTech, investors in this process. Answering such questions requires close analysis of socially-situated texts with the aim to unveil underlying ideologies that might not be apparent in 'plain sight'. Prominent scholars such as Watters (2014, 2015a/b, 2016, 2017, 2021) have discussed and documented in detail the social contexts in which EdTech have emerged as pivotal actors in the HE sector, and called attention to the role of the 'EdTech imaginary' in selling their vision of the future by means of, among other strategies, 'shaping our imagination' (Watters, 2020).

A critical approach to multimodal discourse sets out with the premise that texts are both sites of conflict, and sites for the recontextualization of social practices (Richardson and Wodak, 2013), and examines the combinations of modes (e.g. visuals and linguistic texts) and the emergent meanings afforded by those combinations within multimodal texts (Machin, 2007). Different discursive formulations, including subtle grammatical adjustments, can have alternative effects on the audience (Matlock, 2012; Fuoli and Hart, 2018), and the dissemination of particular discursive input can have a prominent role in agenda-setting processes, in this case the assetization of the HE industry. The crucial role of discourse in business contexts is not only predicated from a linguistic perspective (see Darics and Koller, 2018, 2019; Marissa, 2020), but also from an assetization perspective (Chiapello, 2015; Birch and Muniesa, 2020; Williamson, 2021). In this project we examine different levels of discourse to extract those underlying discourses to better understand their role in the relations between EdTech, investors, and HE. Specifically, we examine Social Actor representation (van Leeuwen, 2008), metaphorical expressions and visuals indexing relevant conceptual metaphors (Semino, 2008; Forceville, 2008), and 'push/pull' factors encoded by means of force-dynamics (Talmy, 2000).

Following this introduction, in section 3 we present the theoretical-methodological foundations for this research, which is primarily anchored in cognitive-linguistic approaches to multimodal discourse. Section 3 includes the research questions that motivate this research, along with a description of the data examined, and the methods employed to analyse and interpret it.

Sections 4 to 6 report the findings relevant to the three research questions in order. Section 4 reports the findings in terms of social actor representation, while section 5 continues by exposing and discussing those push and pull factors central to the phenomena observed. Section 6 discusses and highlights the implications of such representations for the relationship between investors, HE and EdTech. The report ends with some tentative conclusions within the context of the 'Universities and Unicorns' project and directions for further research.

3 Data, Methods and Research Questions

In order to provide a broad picture of the representational patterns put forward by investors in relation to our objectives we have collected and systematically examined a variety of text-types disseminated in the public and semi-private domains. These include: (a) publicly available videos (i.e. YouTube), (b) investment manifestos, (c) professional interviews, (d) global financial reports, and (e) charts. These texts are primarily designed for company-external communication and they are understood to be instrumental in the communication of both leadership and crisis/change (Darics and Koller, 2018) within the context in which the texts are produced and distributed. The overarching purpose of the texts analysed is primarily informative and self-promotional, and secondarily agenda-setting. These goals are achieved through positive representation of factual information and the definition of challenges faced by HE and the EdTech sector. The texts analysed include:

Table 1. Texts, text-producers and text-types.

Text	Producer	Text-type
The European EdTech Funding Report 2021	Brighteye Ventures (2021)	Report
Charles McIntyre, Ibis Capital discusses driving innovation in EdTech through investment	Charles McIntyre (2019)	Interview
Is COVID-19 the EdTech Pivot?	Charles McIntyre (2020)	Blog Entry
EdTechX Global Report – Teaser The 2020 Guide to Education and Training	EdTechX (2020)	Report
The X Report #13	EdTechX (2020)	Report
Our Manifesto — Emerge Fund I	Emerge Education (2020)	Manifesto
Fund II Closes at the Dawn of the New Age of Digital Learning	GSV Ventures (2021)	Fund Announcement

Text	Producer	Text-type
10 charts to explain the Global Education Technology Market	HolonIQ (2021)	Charts
13 investors say lifelong learning is taking EdTech mainstream	Tech Crunch (2021)	Interview
Brighteye Ventures' Alex Latsis talks European EdTech funding in 2020	Tech Crunch (2020)	Interview

Our approach to data analysis and interpretation is pre-eminently qualitative, and it is anchored in the field of Linguistics. Methodologically, the analysis follows canonical steps in Critical Discourse Studies (Fairclough, 1995, p. 133): (a) rigorous description of the (multimodal) texts; (b) interpretation of the possible meanings afforded by the texts; and (c) explanation, which focuses on the relation between discursive and social (economic, political and cultural) processes.

In this study we want to better understand the logic behind investors' communications in their representation of the EdTech sector in relation to HE. This endeavour is operationalized in the following research questions:

1. How do investors represent the evolving market and actors involved?

- 2. What 'pull' and 'push' factors are identified by investors as primarily driving change in the sector?
- 3. What implications can these conceptualizations have for HE?

Research question one aims at providing a broad picture of the roles allocated to the different actors involved. These include EdTech companies, investors, universities, and individuals within them. For that purpose¹, we employ van Leeuwen's Social Actor Model (SAM; 2008), which has been extensively utilized in the examination of social discourses from a critical perspective (e.g. Baker et al., 2008), also for business discourse (see Darics and Koller, 2018, 2019). At the same level of discourse relevance lie those metaphorical expressions framing contextually relevant social actors and events in which they participate. Metaphor is a crucial mechanism for the communication of ideologies, and its critical analysis has been applied to multitude of discourses (Goatly, 2007), among them business discourse (Darics and Koller, 2018; Marissa, 2020). More specifically, we address metaphor within Conceptual Metaphor Theory² (Lakoff, 1987).

Research question 2 focuses on identifying what investors think drives change in the sector. The analysis of metaphor sees its application extended to the study as a whole, which for question two entails examining metaphorical expressions encoding push/pull factors. The conceptualization of push/pull factors relies on Talmy's (2000) force-dynamics³. Broadly speaking, events represented in terms of force-dynamics suggest the presence of some 'causative force' and/or some 'hindrance' to ongoing processes, and deal with physical force and its metaphorical extensions to psychological relationships and social interactions (Talmy, 2000). For example, the SARS-COVID-19 is represented as a 'push' factor in cases such as "The pandemic is

¹ We direct the reader to the Appendix for a more detailed but brief discussion of the theoretical-methodological underpinnings of this research.

² See Koller (2020) for a discussion of metaphor in discourse.

³ A detailed examination of Talmy's (2000) theory is beyond the scope of this report. We recommend the reader to consult Copley (2019) for a detailed discussion.

driving investment in the EdTech market." The pandemic in this context is a 'causative force' affecting investment and the EdTech sector by extension. In this study we are interested in the type of representations because we understand that the analysis of force-dynamics is a powerful tool for "understanding how specific patterns can be used in combination to satisfy different strategic goals" (Oakley, 2005, p. 467).

Last, question three is instrumental in bringing the findings together in order to provide a holistic picture of the implications stemming from the representational patterns found. In the following sections we present our findings with regards to our research questions respectively, starting with social actor representation.

4 Social Actor Representation

- EdTech companies and investors are positively represented as 'enablers'. They are mostly represented by their function in business processes and are 'merged' in the generic collective 'EdTech'.
- Governments and HEIs are mostly negatively represented. Governments are necessary funders of business processes and HEIs are generically represented as failing their consumers.
- Students and educators are rendered by their functions within educational settings.
 Students tend to be represented in terms of numbers and percentages, and professionals within HEIs are 'merged' into the generic collective 'educators'.

In terms of social actor representation, the documents analysed display a vast variety of patterns, although some emerge both as more common and ideologically relevant in the contexts in which they occur. Due to the varied nature of texts examined for this research, the findings will be divided accordingly. This section starts off with an overview of representational patterns in EdTech reports, which inform of the macro-perspective of investors. Subsequently, we examine Emerge Education's (2020) manifesto, GSV Fund II announcement, and professional interviews

and communications (including Charles McIntyre's (2019, 2020) blog entry and YouTube video), which besides reporting information about the EdTech market, are also instrumental in communicating several visions of the near future affecting the relationship between EdTech companies, HEIs and investors.

4.1 Global financial reports

The reports examined for this research are examples of internal⁴ corporate communication (Darics and Koller, 2018, p. 27). Financial reports are designed to inform investors of the progress and events affecting business and, at the same time, to provide specific framings of that progress and those events, which subsequently can have effects on the social understandings of the role of a given business in society. Reports are also instrumental in communicating change and/or crisis/conflict. Financial reports, then, are a specific 'genre' or text-type that tends to present conventional types of information at conventional stages of the document, and that also promotes interpersonal relations between report-producers and -consumers. Unsurprisingly, one extremely common topic in the reports examined which has an extensive impact on the overall representation of the state of finances is the COVID-19 global pandemic. The global pandemic constitutes a type of external, sudden crisis (Darics and Koller, 2018), routinely portrayed as a difficult or event disastrous situation (but see section 'Push and Pull factors' below). Importantly, the COVID-19 pandemic poses a conflict of interests to every stakeholder involved in EdTech sector as a marketized network of influences.

EdTech and investors' representations in the reports fall under a small number of patterns that usually depict them in abstract yet positive fashions. 'Investors' are most frequently referred by that very same label and hence functionalized, employing plural forms without determiners

⁴ While these reports are designed for customers/users/investors involved in the company's business (hence the label 'internal'), the documents are free to access and they are considered to be publicly available discourse, although in occasion access to the document will require registration under the company's website.

which in turn both impersonalizes and genericizes specific actors within the generic collective. This unification, by extension, also portrays investors' interests as a single objective, namely the success in investment returns. EdTech companies are most commonly represented by means of objectification and assimilation in the form 'EdTech', and are also further genericized by their use without determiners. These representations also include metaphorical actions, such as in "[EdTech] offers a lifeline to learners, institutions and employers attempting to continue Education & Training" (EdTechX, 2020, p. 2; my highlight)⁵. EdTech in this example is an activated, objectified actor portrayed under a positive light in their role of 'enabler' for educational practices to continue. Prototypically, EdTech are actors in material processes with learners and HEIs as beneficiaries of their actions. In this case EdTech are represented undertaking a metaphorical action and offering 'a lifeline' to different actors. We argue that this representation indexes an underlying metaphor 'business is journey'. In this scenario, EdTech are potentially conceptualized as a 'ship' moving along a path, helping other actors to 'jump aboard', a representation invoked by the noun phrase instantiating the instrument 'lifeline', in this case connoting a rope used for life-saving in difficulties in water, so that the 'journey towards profit' can continue. Overall, EdTech are positively represented and routinely cast in the role of 'enabler' of education during the global pandemic, they are represented as a unified entity that 'paddles' in one direction, leading the way for the consolidation of new ways of understanding learning and doing business.

The representation of *governments* is mostly generic and collectivized under the form 'government(s)', and the type of processes in which they participate is rather restricted. Governments are represented as "rightly imposing social distancing measures" (EdTechX, 2020) in material processes affecting the spread of the virus, but more commonly governments are highlighted in future contexts in which EdTech requires access to further funding to consolidate their position ("governments make more funds available" (Brighteye, 2021)), or in contexts in

⁵ Unless otherwise specified, highlights in examples are introduced by the author.

which governments limit the impact of the expected recession stemming from the COVID-19 crisis ("Education will be affected but **insulated** in part by government" (EdTechX, 2020)). These representations also find their form in noun phrases that highlight processes rather than individuals involved in them, presenting abstract patterns in representation ('government funding', 'government support'). The ultimate beneficiaries of those processes are EdTech companies and these actors can be retrieved from the overall context in which the representations occur, and are therefore backgrounded rather than suppressed (van Leeuwen, 2008). Governments are also actors involved in push/pull factors situations, which we explore below.

Universities and individuals involved in educational contexts (namely, students and educators) affected by the COVID-19 pandemic have a relatively prominent role in representation as users of EdTech affected by the pandemic, but the contexts in which they are included are quite restricted and accommodate two main patterns. First, students are primarily treated as passive agents, while educators are treated as active agents. Students tend to be quantified and aggregated (e.g. '1.7bn learners', '90% of students'), which reinforces a representation focused on the scale reflecting notions of market size and associated potential values. This is also enacted in a number of visuals, which usually represent by means of bar charts the increase in students affected by lockdowns or by a move to online education. Those visual representations are scaffolded upon a 'verticality' schema: the increase in the number of students is visually represented by increasingly larger bars. This pattern is also employed in predictions, for example "Total HE students set to **rise from 250m to 590m** by 2040, with **70%** from Asia" (EdTechX, 2020, p. 7). Educators can also be assimilated via abstraction processes: reports can refer to HEIs more generally, which abstracts individuals involved in educational practices.

Alternatively, students can be further represented as 'consumers' and 'users', while these representations find their counterpart in a material process of 'provision', where educators become 'content providers' within HEIs that provide 'Education' objectified as a good or service. Significantly, in either pattern individuals are assimilated within an encompassing collective that

blurs individualities and focuses on what individuals 'do', rather than on who they 'are'. This second pattern is important due to its potential for framing educational practices within a business-oriented scenario. In a majority of those cases students are rendered passive, that is, are represented as receiving education/services from educators or HEIs, which in turn are mostly activated actors and therefore responsible for the educational practices, which according to the reports they are increasingly failing to fulfil. This representation, which further represents HE education as a commodity, has further implications as it frames education within a 'supply-chain' relationship, with HEIs and educators being fully responsible for the provision of education while students are routinely depicted in passive, or receiving, roles. Last, individuals within educational settings are commonly backgrounded by means of nominal phrases, nominalizations and nonfinite verb forms (e.g. 'insufficient supply of university spaces', 'spike in demand for online course delivery', 'remote learning'). Individuals are not fully suppressed (van Leeuwen, 2008) from the text as they can be retrieved from the information contextually and co-textually available, however the purported effect is that of removing students and educators and relegating them to the 'semantic background', which further prevents the audience from engaging with these central actors.

Last, in the reports analysed the form 'university' tends to be replaced by HE and when the former is present (Brighteye (2021) omits the form entirely in their report), it is in contexts in which they represented in a negative light in the form of predictions. This can be related to need to configure a market for EdTech and to treat HE services as fungible (e.g. easily interchangeable). This way, 'universities' are either heavily impacted by the potential loss of international students, or they are unable to supply enough places for the increasing number of students (EdTechX, 2020). EdTech is the logical solution devised to drive profit in this scenario.

4.2 Emerge Education's manifesto, GSV fund II announcement, and professional interviews

These three text-types display commonalities related to their inherent communicative purposes, and differences stemming from more specific goals pursued by their producers in their specific contexts of production and distribution. Both Emerge Education's manifesto (2020) and the GSV fund announcement (2021) are indicative of the vision of their businesses, which includes a strong persuasive endeavour; that is, in communicating their vision or announcing the fund, both text-producers are discursively creating a world in which they encourage investors (explicitly or not) to actively participate in. This hinges upon inherently positive self-representation in several dimensions. Interviews with professionals in the sector also encapsulate an opportunity for investors to explain their vision, however they convey a more interpersonal relationship in which the reader is part of an 'unspecified/imagined audience' (Darics and Koller, 2018), while the prototypical audience of the former text-types include entrepreneurs, start-ups and investors more generally who are both presented with a vision and invited to 'jump aboard'.

Emerge Education's manifesto (2020) is representative of the strategies deployed by EdTech investors in the context of our study. This text is produced by the founder Jan Lynn-Matern, it explicitly addresses professional investors, and provides a concise vision of the role of the company: "[an] education system that can **double its capacity** in just ten years, **align swiftly with employers** to provide training for newly invented skills and **keep helping people train and re-skill throughout their lives**" (Lynn-Marten, 2020). This vision is insightful as it spells out three market framings of HE entailing scalability, flexibility, and re-skilling, and a desired extension of its network into the professional market. HE is objectified as a 'system', which removes its participants and highlights its interconnections, but that system is unable to cope with existing demand in volume. Importantly, this claim is unfounded and there is no evidence presented for the need of unprecedented numbers of universities in the near future. A recurrent need addressed throughout the text is the so-called 'skills gap' and its relation with life-long learning/training: HE 'systems' are required to share the same 'journey' that businesses are

making ("I believe we have found the route to education's future. Join us on our journey"), and that will contribute to also streamline post-HE re-skilling. In any case, EdTech are activated and instrumental in facilitating these processes of HE-employment convergence, where the people adopting these new processes are potential passivated beneficiaries of the actions needed to be carried out by HEIs. While Lynn-Marten's vision is clear albeit abstract in its formulation, his argumentation for these needs also feeds on the ideas of democratization and equality of access to education, which he carefully represents as stemming from his life origins. Lynn-Marten represents himself as the founder of Emerge Education (functionalizing himself as the fundamental actor in the creation of the company, connoting positive meanings) and as 'child of immigrants', this is kinship terms. These, in combination with photographs and captions embedded in the text, in which his grandmother is highlighted and activated as being responsible for their moving to Germany, provide an opportunity for investors to engage and empathize with him and the 'original endeavor' informing the manifesto. 'Education' is said to be the core object and value that in the initial part of the text Lynn-Matern works to emphasize as an integrative tool, in this case also scaffolding emotional resonances by means of visual input. Against this background, he asserts that "[t]oday's education no longer provides the opportunities we need it to," and therefore Emerge Education seeks to empower individuals and institutions in filling that gap. Last, universities are mostly represented as 'providers' and therefore functionalized and framed in terms of a 'supply-chain' where students are treated as 'consumers'.

GSV Fund II (B.C./A.D.) announcement (2021) is instrumental in that it further represents the EdTech sector and the actors and tensions within it, also employing several ideologically relevant metaphors. The initial framing of the EdTech sector in relation to the pandemic is rather positive: "The world leapt from B.C. ("Before COVID") into the new era, A.D. ("After Disease")." This representation has obvious religious resonances and is positively reinforced by the header of the announcement, "**The Dawn of the New Age** of Digital Learning." This framing abstracts digital users altogether and focuses on the intended parallelism between the parts of the natural day applied to a more encompassing cultural frame 'New Age', and the emotional connotations that are mapped onto the announcement of the Fund. In this document 'students' are aggregated,

functionalized and mostly activated, while lecturers/professors become distributors of educational services provided by EdTech: "100% of students shifted to online learning." The learning market as a whole tends to be conceptualized as a living organism whose growth stages are distinguished in financial terms ("the \$7 trillion global learning market has been growing at a steady 5% CAGR"). Like in previous texts, students can also be further functionalized as 'consumers' and 'users', however that representation only occurs when students are beneficiaries of material processes enacted by HEIs. Last, GSV (2021) represent their team of investors and the role of HE in very different lights. Fund II is invested by "a team of EdTech leaders and investment professionals," who are further semi-formally nominated in turn. The investors are collectivized under the form 'team', and are functionalized as leaders and professionals, which contributes to the positive representation of the company more generally. HEIs are negatively represented as failing their consumers (their students) due to pre-existing conditions, and they are depicted as institutions that must make a big effort to fulfil their goals. The following is representative of this framing: "Higher Education Walks The Plank: Digitize or Fall Behind" (GSV, 2021). We argue that here we have a complex interplay mixing several metaphors that serve to portray HE in a binomial life/death situation. The expression 'to walk the plank' originates in pirating times and conveys a form of execution/torture aboard a ship: prisoners would be made to walk the plank to their deaths. In this representation, which further implies that investors are 'pirates', there are two options for HE: it can work with EdTech (by staying aboard the 'ship') or they can 'fall behind'. This way, we encounter a complex interplay between the metaphors 'business is ship' and 'business is journey/race': EdTech companies are conceptualized as a 'ship' (accessible via the expression 'to walk the plank') aboard of which stakeholders can continue their journey towards profit; in this 'journey/race', not digitizing entails being left behind. This way, EdTech is routinely positively represented, while HE and HEIs are depicted as depending on them to continue with their activities and satisfy their students/consumers.

As for the representations observed in the professional interviews examined, including Charles McIntyre's communications, we have found very similar patterns to the ones highlighted above,

albeit with some relevant cases that require further examination. For clarity, we focus here on TechCrunch's 'Extra Crunch⁶ interviews with 13 investors'. The purpose of the interviews is to understand how lifelong learning is reshaping the industry: "The evolution of post-pandemic education will be complex, if not aggressively competitive among the growing cohort of wellcapitalized EdTech companies." As reported above, it is very common to find expressions that represent increase in investment and companies/students in terms of growth, and in this example, we also find an expression framed within the 'business is competition/race' metaphor. A major framing strategy in GSV, then, is a preference for growth over revenues. 'Education' as an abstraction via nominalization, whose effect is the backgrounding of the actors involved, is said to extend beyond traditional school hours which connotes associations with the workplace. EdTech are represented as 'enablers', and learners are functionalized and beneficialized as 'consumers' and 'users' in a work-based scenario. EdTech and startups are mostly assimilated, aggregated and abstracted. In these interviews (also in some occasions in the previous texts) EdTech companies are further specified within the collectivization. This is a genre-based distinction due to the individualized questions posed to investors: investors not only inform of their views on the evolving market, but they also capitalize on the situation to promote the EdTech companies they invest in. A prime example of this are Lynn-Matern's responses: when asked about his expectations about increase in demand, he spells out every single area in which Emerge Education invests, which enables him to indicate the contributions of each of the companies (my emphasis and highlights):

[...] we saw **massive growth** in demand for online classes (FutureLearn), career education (Jolt), online tutoring (GoStudent), online study communities (Studysmarter), casual learning apps (Babbel) and kids edutainment (Yoto).

⁶ Extra Crunch is a members-only community from TechCrunch, and this interview is therefore a private, internal communication only designed for members involved in the EdTech sector.

In the example above, we encounter again the 'increase is growth' metaphor indexed by the adjectival phrase 'massive growth', along with an enumeration of those areas experiencing demand. The expressions in italics indicate nominalizations, metonymies and non-finite verb forms that abstract the individuals involved in them, with a focus on the process or object rather than on the individuals. If students are frequently assimilated in the collective form 'consumers', and HEIs are mainly represented as 'brands' and 'worker providers' within a 'supply-demand' scenario, 'educators' remain functionalized in their prototypical role, however with some ideologically relevant additions.

First, while the EdTech sector is commonly framed as a living organism that 'evolves' and 'grows', educators become 'multitasking machines': "tech can be partnered with in-person **instruction in a way that supercharges the educator with the data** needed to personalize their instruction." In turn, the educational process is nominalized in 'in-person instruction', which backgrounds the actors involved but, more importantly, the educator is framed as a machine that works collaboratively with and is 'fed' data by EdTech, with the outcome of individualizing instruction for the 'student/consumer'. References to instruction personalization are common, HEIs are not able to provide personalized educational processes designed to satisfy students, and neither to bridge the gap between education and the job market. EdTech is constructed as facilitating these processes, therefore reinforcing their positive representation also focused on satisfying individual students' needs. Educators can be further objectified such as in "Zen Educate addresses **the systemic issue of teacher supply shortages** in the UK," again in a 'supply-demand' scenario where EdTech can contribute to solve the issues of scalability.

In sum, these representations of the relationships between EdTech, educators and learners are crucial for the ideological backdrop needed for the articulation and perpetuation of the EdTech sector, and we return to it in 'implications and discussions' below.

5 Push and Pull Factors in the EdTech sector

- Push factors identified by investors driving the EdTech sector include the SARS-COVID-19 global pandemic, the digital acceleration being experienced in the sector prior to the pandemic, the increasing number of students requiring access to HE, and investors' actions aimed at disrupting the EdTech market.
- Pull factors encouraging investment in the sector are conceptualized in the shape of financial predictions. The visions put forward by EdTech investors become instrumental in the achievement of those predictions.

The distinction between push/pull factors found in the texts under examination is rather restricted, and in a majority of texts the entities/situations embodying either fall under two patterns. First, the global pandemic is a (in some cases, desired) push factor in an already unfolding scenario experiencing transformation, albeit accelerated by the pandemic. Second, while the financial benefits predicted on the basis of the projection of the EdTech sector provide the means for the conceptualization of the most common pull factor, the potential profits predicted on the basis of an ever-growing sector. These conceptualizations are scaffolded upon several metaphors which are highlighted in turn; however, the basic metaphorical framing hinges upon the 'business/process is journey' metaphor, which structures the processes within the EdTech sector in terms of 'forward motion towards profit'. In turn, factors/entities (primarily HEIs) that potentially hinder that journey are conceptualized as 'obstacles along the path', conveying negative connotations of the role enacted by those entities, and also identifying potential changes in those entities or the processes they participate in. We focus our discussion of these patterns on HolonIQ's (2021) charts, EdTechX's (2020) report, and Emerge Education's (2020) manifesto. Next, we discuss both representational patterns in turn.

5.1 Push factors

Those factors that discursively serve to create a sense of urgency and desired action tend to be conceptualized as push factors, these analysed and interpreted under a force-dynamics lens (Talmy, 2000). Push factors in this context are states of affairs or actors that drive change in

business contexts. In combination with the 'journey' metaphor, we encounter push factors conceptualized as 'tailwinds' and 'drivers of change' (EdTechX, 2020). This framing, in combination with the 'business is ship' metaphor, represents entities within the EdTech sector as 'sailing' and being propelled forward by factors conceptualized as favourable winds. The most recurrent push factor in the context of our data, which belongs mostly to 2020 and the first quarter of 2021, is the global pandemic in examples such as the following: "The COVID-19 crisis **is driving increased uptake of technology** in order to replace, supplement, and enhance teaching and learning in the context of social distancing" (EdTechX, 2020, p. 6). This way, the global pandemic is depicted as increasing the speed of ongoing processes of marketisation and assetization within HE.

EdTechX's (2020) global report represents the distortions brought to the education market as headwinds/tailwinds and relates them to what they identify as main drivers of change for a post-COVID-19 world. With regards to 'tailwinds' propelling EdTech forward as a (partial) result of the pandemic, EdTechX identifies further access to both governmental and corporate funding as positive push factors in a context in which governments will "seek to protect funding to Education" on the 'road to recovery', emphasizing the role of governments in facilitating the transition to the digital. The second tailwind identified is also rather abstract in its formulation and labelled 'digital acceleration': "The COVID-19 pandemic is seen as a catalyst to the already existing trend by industry experts" (EdTechX, 2020, p. 2). This metaphorical expression is interesting in that the chemistry-based framing abstracts social participants and therefore diminishes negative connotations brought about by the pandemic that might be available to the general public. While digital acceleration is a desired push factor, governments (as funders) are represented as ambivalent enablers/blockers: "except where online is embraced to drive teacher productivity, [government] funding constraints will slow growth" (EdTechX, 2020, p. 3). The same framing is chosen by HolonIQ (2021) in their charts, where governments are depicted as 'struggling' to fund education. Digital acceleration is also a 'driver of change' and hence a push factor in EdTechX's (2020) report. EdTechX (2020) additionally indicates a driver of change in the shape of 'deep learning' (2020, p. 4): "The next major focus of digital learning will be the

reconfiguration and optimisation of delivery, **powered by AI** that is able to learn from experience and improve the efficacy of human and machine learning." In a context of digital transformation, the rise of AI (Artificial Intelligence) is a rather abstract push factor that suppresses an important component in those machine learning processes: the collection of unprecedented amounts of data reflecting users (educators, students and administrators) behaviour within HEIs. Suppressing the origin of those AI processes additionally increases the positive role of AI and EdTech in this scenario, as the result is an alleged increase in their agency.

If above we have discussed that EdTech is routinely depicted as an 'enabler', allowing for educational practices to continue despite the pandemic or for the re-skilling of workers, investors in their activities concerning the acceleration of the digital transformation of the HE sector can take two forms: they self-represent as 'enablers' and 'disruptors' (and hence they are conceptualized as push factors). This is crystal clear in Emerge Education's manifesto (2020), who are "seeding and growing engines of opportunity." Within this 'machine as organism' framing, these engines are mean to 'bridge the divide' between people and industry, and being ascribed the role of 'enablers'. While 'enablers' (Emerge Education, 2020) work with existing institutions to enhance flexibility and scalability, 'disruptors' compete with the incumbent institutions. 'Disruptor' engines take three shapes: (1) online, free, vocational career-oriented schools; (2) personalised workforce training; and (3) 'challenger' universities. This last initiative is very explicit in its formulation as a push factor: challenger universities "challenge the status quo through innovative curricula, teaching and operating models." In this scenario the status quo includes the role of HEIs, which are the entities primarily challenged by this type of initiatives. Importantly, these 'engines' are also represented in a very positive light which contributes to the overall positive self-representation of Emerge Education: "These engines of opportunity are democratising access to higher skills and meaningful employment." This appeal to democratic values such as access to education serve to underpin the investors' motivation and enhances the positive representation of their role in the sector.

Last, change in education and the EdTech sector more generally is the primary push factor, where that 'change' and its implications are envisioned alternatively by investors, however with converging patterns. This change has several dimensions already indicated above with regards to Emerge Education's (2020) manifesto, of which we focus on 'scalability'. In terms of scale, we encounter push relationships between the increasing number of HE students and the offered spaces by HEIs. EdTechX (2020, p. 7) indicates that the global number of HE students will more than double by 2040, where HEIs are represented within a 'supply chain' scenario in which institutions in both developed and developing countries fail to provide enough spaces. This increase is conceptualized as a push factor in terms of 'growth/rise' that is meant to sustain a narrative where digital acceleration is the only solution to the problem of scalability. A similar framing is observable in Emerge Education's manifesto (2020). Next, we turn to pull factors observed in our data.

5.2 Pull factors

In the data examined, pull factors tend to be encoded in the shape of (financial) predictions. Those predictions are taken as desired stages/endpoints within the conceptual 'journey' that serves as fundamental metaphorical framing for the activities in the EdTech sector. In order to arrive to those predictions, investors represent their activities as instrumental, and they are depicted in their initiatives as 'enablers' of processes of digital transformation that allow the EdTech sector to arrive to the desired destination: profit. Further, the purported profits stemming from the evolution of the sector are depicted as factual; investment and expenditure are taken as a given, and that implies that failing to adopt the strategies put forward by investors will result in undesired outcomes (see example above "HE walks the plank" (GSV, 2021)). This ideological move is essential: the EdTech sector is conceptualized as a living organism, with its own intrinsic nature, that investors purportedly fully understand and are able to predict with the aid of sophisticated predictive algorithms (HolonIQ, 2021). These representations are important in that they can be said to reflect the paradox in markets. Market price reflects rational decisions thereby representing fundamental value; as such, analysts/predictors are redundant since the

market will reflect fundamental value without them. These representations, then, serve to justify, perpetuate and emphasize the importance of the role of investors in the market. In the following paragraphs we report the most relevant realizations of pull factors.

Emerge Education's manifesto (2020) is rather effective in creating a scenario in which HE is not fulfilling the needs they identify as essential: "[t]oday's education no longer **provides** the opportunities **we need it to**." In this case the pull factor is the unfulfilled need for opportunities that HE is failing to provide. This dimension is further elaborated throughout the Manifesto:

With two universities needing to be built every single day for the next 15 years to meet demand — an impossible goal — Emerge Education's founder, Jan Lynn-Matern, argues that significant disruption to the present education system is not only inevitable but highly desirable.

In the extract above, the need for more universities is not allocated to any specific actor but more generally growth on a global scale, and therefore it is construed as an inherent need for the sector that is impossible to achieve. Importantly, the need to build those universities is not supported by evidence in any of the texts analysed, and can be interpreted as an effort to further delegitimize HEI's future capacities. In that scenario, disruption is a nominalized push agent affecting the education system. This way, the only way to fulfil that need is by disrupting the status quo in a context where the educational system is conceptualized as a 'blocker' on the 'path' to the fulfilment of those needs.

The financial predictions about the EdTech sector encode important but relatively subtle pull factors. The promise of substantial returns discursively construes a profitable scenario which is meant, among other objectives such as positive self-representation, to attract investors. HolonIQ (2021) uses visual input rather effectively in order to reinforce the implications of those predictions. The following text is accompanied by a bar chart underpinned by the 'growth' metaphor discussed above:

Education is one of the world's single largest industries, making up more than 6% of GDP. We expect total global expenditure from governments, companies and consumers together to reach \$7.3T by 2025.

This prediction establishes an increasing expenditure encoding a discursive pull factor. Companies and investors might be positively encouraged to invest in the EdTech sector based on the premise of market growth, which is visually literally 'off the charts'. A very similar framing is observed in others of their charts: "EdTech spend will nearly double in the next 5 years." The visual representation reproduces the same message as discussed above, an increase in digital spend finds its reflection in the size of the bars in the chart, where, the doubling in spending is, again, literally 'off the charts'. A very similar pattern is observed in the representation of Venture Capital investment in EdTech (HolonIQ, 2021). These repetitions can be understood as a rhetorical device (Darics and Koller, 2018) by means of which the same metaphorical framing, predicated on the 'growth is increase' metaphor, establishes the prediction as inherently factual, and hence purportedly increases the persuasive value of the multimodal representation of growth in the EdTech sector. The articulation of this pull factor is complex and hinges on the value attributed to the predictions provided by investors, which subsequently depend on their professionality, credibility, and capacity for creating return. This aspect of confidence-building is found in the last of HolonIQ's (2021) charts, which, rather than providing further predictions, reflects on the fact that those predictions are only possible by HolonIQ's technoscientifically (Birch and Muniesa, 2020) powered 'Global Market Intelligence Platform'.

We have observed two further pull factors that are important for the overall ideological uptake of the texts examined. One pull factor is encoded in the shape of 'labour deficit' and is found across the texts examined. The other is the value of democratization, which is primarily articulated in Emerge Education's manifesto (2020) as a positive self-representation strategy, purportedly strategically deployed to persuade investors. Labour deficit is interesting due to its negative valence: "By 2030, a global shortage of skilled talent is projected to result in an \$8.5 trillion loss in foregone annual revenues." This outcome is undesired and it affects not only the EdTech sector, but the global economy as a whole. The implicit pull factor is an encouragement within the EdTech sector to provide the means necessary to sustain the employment market, which is referred to in terms of the revenue it generates within a supply-demand scenario invoked by the noun phrase 'shortage of skilled talent', and therefore backgrounding individuals, who are only accessible via the metonymy 'skilled talent'. This pull factor is very subtle because it operates within a negative outcome scenario: the 'pull' is towards those activities that promise to bridge that gap and yield positive returns, more specifically those \$8.5 trillion in profit which will be lost unless the sector takes EdTech initiatives on board. This subtle pull factor reinforces the representation of the current sector as unable to provide the means necessary for the projected profits, where HEIs are not efficient enough and EdTech comes into play to 'propel' the journey towards profit: the digital transformation facilitated by EdTech will enable the sector to profit within a projected negative outcome scenario.

Last, democratization of access to education has been addressed above in its role within the representation of push factors, and it is operationalized in restricted contexts: "Emerge is run by a brilliant team of investors and entrepreneurs **who are all equally passionate about creating a world of equal opportunity**." Identifying positive societal changes as pull factors is a positive self-representation strategy (Darics and Koller, 2018, 2019) that contributes to depict investors as not only interested in returning profits, but 'more importantly' as actively envisioning a future that benefits underrepresented groups. Let us remember that one important ideological move by Emerge Education is the social actor representation of Lynn-Matern as an immigrant who found his way out of poverty 'the traditional way', but that 'way' is currently impossible due to the lack in HEIs. We argue that by portraying this pull factor as a desired goal with positive effects in society, Emerge Education effectively represents their activities in a rather persuasive fashion.

6 Implications and Discussion

In light of the findings above, the projected and envisioned role of EdTech companies and investors in relation to HE is rather unified in their approach: EdTech companies and investors'

involvement and investment in the sector are represented as essential, desired processes required in order to capitalize on an increasingly financially attractive scenario that the global pandemic has only served to accelerate.

The conceptualisation of the processes undertaken in the EdTech sector include complex metaphorical realizations of the 'journey' metaphor in combination with the 'company is ship' and 'growth is increase' metaphors, the latter especially prominent in the visual modality. In this complex, multilevel scenario, EdTech companies and investors constitute a multifarious but metaphorically constrained approach to the activities in the sector, embodied in the 'journey' to profit as final destination. Alternatively, we have also observed, although in a lesser scale, that the EdTech sector can be conceptualized within a 'business is race' metaphor, in which EdTech companies and investors are cast as 'competitors' in the 'race' to profit. These metaphorical framings are essential due to their instrumental role in creating a persuasive, attractive 'world' for potential investors (Darics and Koller, 2018). Thus, they can have important ideological implications.

Framing business within the 'journey' metaphor (or its elaboration in terms of 'race') entails that any entities or processes affecting business are potentially conceptualized as 'obstacles along the path', and therefore attributed negative connotations. In our case, those entities (e.g., governments and HEIs) or processes (e.g., lack of funding) that metaphorically 'stand in the way of business' are automatically framed in a negative light, potentially affording a negative reception by the audience and therefore legitimising actions designed to remove those 'obstacles' (e.g., 'disruptions'). In this complex context, EdTech companies and investors are represented very positively as 'enablers' of educational practices disrupted by the SARS-COVID-19 pandemic, but also as 'push factors' in processes of digital acceleration within the 'speed of action is speed of motion' metaphor. In the premised, ever-growing EdTech sector, those actors and processes that 'slow down' access to profits (or processes providing access to profit) are similarly negatively represented. For example, government funding is required for the consolidation of the sector and, consequently, their inaction constitutes a factor that prevents business from proceeding as desired (premised on the predictions given by HolonIQ and Brighteye Ventures, among others). This way, investors present a narrative required to create market underpinned by public sector funding.

The conceptualization of the SARS-COVID-19 global pandemic in this context reflects 'calculated ambivalence' (Wodak, 2015). This ambivalence was expected, as portraying the pandemic solely as a relatively positive factor for the HE sector would be in extreme detriment to those organizations discussing it exclusively in such way, even more when at the moment of writing almost 129,000 people have been victims to SARS-COVID-19 in the UK alone since February 2020⁷. Our findings reflect that, while the global pandemic is initially represented as a very negative factor greatly disrupting societies and businesses, those negative impacts tend to be presented in rather vague ways and in most occasions the result of the disruption brought about by the pandemic is reduced to changes in the modality of education experienced by learners (from in-person to online education). We have found no significant mention of social or personal impacts of the pandemic (e.g., deaths and scenarios affecting underrepresented social groups), where the focus has been mainly on the market and the activities within it. This in turn reflects the purpose and imagined audience of text-producers more generally (Darics and Koller, 2018): the texts examined are designed to communicate an unfolding crisis and to promote particular desired changes in the sector to a varied specialist audience expected to be comprised of finances experts, investors and entrepreneurs interested in the EdTech sector, regardless of their personal involvement with the pandemic. Overall, these representations create or institute a market that broadly reflects a neoliberal logic.

Conversely, while the initial framing of the pandemic is inherently negative, we have seen in several examples above that the pandemic is subtly instrumentalized as a 'push factor', which

⁷ Official figures available at:

https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

serves to accelerate digital transformation and is hence a positive factor for the EdTech sector. In a global context of restrictions, containment measures and vaccine rollouts, it is especially ideologically relevant to find the pandemic instrumentalized as a 'catalyst', or as an important player in a 'experiment of global proportions'. Framing the pandemic is such ways detaches the audience from its negative connotations, and serves to depict EdTech companies and investors as involved in high-level, complex processes that abstract the millions of diverse victims to the pandemic. Ultimately, in the 'journey' towards profit, the SARS-COVID-19 is a desired push factor, also realized as a 'tailwind', which facilitates the desired digital acceleration.

Last, one important aspect that subtly informs of the new processes of assetization of HE (Komljenovic, 2020, 2021) is the discursive technification of education, which reframes the roles of learners and educators, who consequently and gradually become 'users' and 'content providers' respectively. We argue that the transition to a model of assetization within the HE sector (Williamson, 2021; Komljenovic, 2020, 2021) is discursively reproduced by this terminological change, and is also an instantiation of discourses of technoscientific capitalism (Birch and Muniesa, 2020). These alternative social actor representations (van Leeuwen, 2008) are emergent in the texts examined, but hint at essential changes affecting the HE sector. In the analysis above we have seen how learners are mainly represented via passivated collectivization and aggregation, that is, as a unified collective (or aggregated figures) that receives education as a commodified good. While both students and educators in this enhanced 'supply-chain' scenario are activated, this increasing the grammatical agency of these actors, these representations have important implications within the emergent assetization of HE scenario. Students and educators become 'users' and 'content providers' within new EdTech platforms-based educational processes. While both actors remain collectivized and functionalized, the environment in which they interact is not the HEI of choice (e.g., Lancaster University), but the platforms that currently are the 'locus' for educational activities. If above we have argued that business discourses about the HE sector abstract social actors, and rather focus on processes, we argue that this recontextualization (Richardson and Wodak, 2013) via social actor representation further focuses on the processes afforded and enabled by those platforms. The meeting point for these users

and content providers is the educational platform (e.g. Microsoft Teams), where the now content providers can use the available data (information extracted by the platform in the shape of 'behaviours') to optimize learning processes.

In this context, the 'rise of AI' is highlighted, but its potential functions are not spelled out, that is, potential investors and entrepreneurs are not presented with the full picture, which might trigger debates around data privacy and governance, and are presented with a rather 'opaque' prediction under the rubric 'the rise of AI'. The data that purportedly 'supercharges' educators in order to optimize learning and inform tailored programmes is construed as being an inherent part of the process facilitated by the educational platform, rather than stemming from the actions and behaviours of students and staff. These patterns of representations, then, fully supress the actors producing that data via platform interaction, which in turn serves to disconnect those actors from those processes, and hence discussions about the value and extraction of that data are suppressed, and missing entirely. Apart from abstracting individuals in HEIs, these representations further blur the distinction between HE and lifelong learning, reflecting the intended fusion between both endeavours that is routinely advocated for in the texts examined.

7 Conclusion

This project set out to better understand the underlying motivations of EdTech investors in a context of ongoing digital acceleration, marketisation and, recently, assetization of HE, only enhanced by the SARS-COVID-19 global pandemic. This research has examined the linguistic, visual and multimodal patterns concerning relevant actors and processes within the EdTech sector.

In terms of social actor representation (van Leeuwen, 2008), in the texts examined EdTech investors and companies are rendered as opaque, abstract collectives, and are positively represented as 'enablers' and 'disruptors' of educational processes. Governments are rendered

as generic, collective entities, and depicted as necessary funders of process of digital transformation. HEIs are mainly negatively represented as potential 'blockers' of processes of digital transformation, and they are depicted as failing their students due to their lack of scalability and flexibility. Conversely, individuals within HEIs are identified as figures and increasing percentages within unified collectives, students routinely cast as beneficiaries in 'consumer' and 'user' roles, while educators are activated as 'content providers'.

Metaphorically, the EdTech sector is conceptualized as a 'ship' on a 'journey' towards profit, where HEIs can be 'obstacles along a path' and the global pandemic and other push factors are conceptualized as 'tailwinds'. The EdTech market is conceptualized as a living organism that grows and evolves independent of the actors involved in it; however investors claim to possess technoscientific solutions that enable them to formulate predictions, such as HolonIQ's 'Global Market Intelligence Platform'. The visual representations observed reinforce these patterns and emphasize the growth of the EdTech market in very positive terms.

Push factors identified by investors driving the EdTech sector include the SARS-COVID-19 global pandemic, the digital acceleration being experienced in the sector prior to the pandemic, the increasing number of students requiring access to HE, and investors' actions aimed at disrupting the EdTech market. In contrast, pull factors encouraging investment in the sector are conceptualized in the shape of financial predictions. The visions put forward by EdTech investors become instrumental in the achievement of those predictions.

As for the representation of the global pandemic, it is ambivalent and is rendered both as a negative factor affecting societies, and as a positive factor for the EdTech sector. The primary focus is on the positive outcomes of the disruption brought about by the pandemic. In this context, educational platforms are foregrounded in their enabling role and replace HEIs as site for educational practice, de-localizing educational practices from physical universities. Subsequently, students and educators are found to be increasingly reframed as 'users' and

'content providers' respectively. We argue that this subtle discursive shift is potentially indicative of the new processes of assetization of HE and reflects more broadly a neoliberal logic.

Last, this research has demonstrated that a multimodal approach to business discourse which combines different analytical tools has the potential to shed light on crucial issues concerning the HE sector, however with some limitations. The texts selected for analysis are meant to provide a representative illustration of the representational patterns commonly put forward in investors' discourse. Due to the primarily qualitative approach to analysis, we have only analysed a relatively small number of texts. Further research would benefit from examining larger amounts of data, potentially combining quantitative and qualitative methods (e.g. Baker et al., 2008) to better understand the distribution of representational patterns and their role in diverse contexts. Additionally, one aspect that would enhance the understanding of investors' logic is examining the processes of production of texts such as those examined in this research. These aspects are considered and incorporated in later stages of the 'Universities and Unicorns' project.

To conclude, this report can be understood as constituting a 'stand-alone' research, but is better understood as an integral part of the broader 'Universities and Unicorns' project. In this research we have exclusively examined discursive patterns in a variety of texts reflecting investors' logic regarding the HE market. This qualitative analysis is further complemented by its quantitative counterpart, and we encourage the reader to combine both readings in order to have a much more detailed 'picture' of the processes affecting the HE sector.

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9 Appendix – A brief note on theory and method

9.1 The Social Actor Model (van Leeuwen, 2008)

The Social Actor Model (SAM) is better understood as a socio-, pan-semiotic inventory for the representation of social actors in socially-situated texts (van Leeuwen, 2008). The SAM is enunciated within Systemic-Functional Linguistics (SFL; Halliday, 1994). In SFL, semiotic systems (e.g. language) are described as meaning potential; language is conceived as a palette of resources from which speakers make choices in order to communicate different types of meaning. In our operationalization of the SAM we examine exclusively Transitivity patterns as enactors of the ideational/experiential metafunction of language. In SFL, Transitivity is a grammatical resource for construing experience in terms of configurations of processes, participants and circumstances (Halliday, 1994). Basic distinctions include the inclusion/exclusion and passivation/activation of actors in events, along with an extensive variety of linguistic

mechanisms used to express different levels of calculated refinement in representation. For example, individual actors within EdTech companies can be assimilated by means of metonymy (e.g. the name of a company standing for the people working in that company), and individuals within HEIs can be further functionalized being referred to as 'learners' and 'educators'. With the application of the SAM (van Leeuwen, 2008), we systematically label social actors as participants in processes relevant to relationships between EdTech, investors, and HEIs.

9.2 Conceptual Metaphor and metaphorical expressions

At the same level of discourse relevance lie those metaphorical expressions framing contextually relevant social actors and events in which they participate. Conceptual metaphors are a complex, multi-level cognitive mechanism that enable speakers to structure abstract, complex domains of social reality in more concrete, usually physical terms (Lakoff, 1987). Conceptual metaphors as cognitive mechanisms find their realization in metaphorical expressions (Semino, 2008). For instance, a common expression in business discourse includes speaking about companies as 'ships' (Darics and Koller, 2018, p. 155), such as in 'We're on a sinking ship' to represent a situation in which a company is facing financial difficulties. Those metaphorical expressions in which companies are described or referred to as 'ships' index the conceptual metaphor COMPANY/BUSINESS IS SHIP. Scholars have identified several functions of metaphor that are relevant here: explaining complex matters, creating new perspectives, influencing perspectives, expressing emotions and capturing emotional realities, setting the scene for narratives (Tietze et al., 2003; Darics and Koller, 2018), and "[i]n organizations undergoing change [...] helping people to visualize the imagined-but-soon-to-be-constructed new entity" (Amernic and Craig, 2006, p. 12). Importantly, while metaphor is a useful mechanism to 'open up' new worlds, it also establishes what is understood as common sense and thus actually "constrain[s] the generation of new insights" (Tietze et al., 2003, p. 38). The critical unpacking of metaphorical expressions indexing conceptual metaphors is therefore crucial in the analysis of socially-situated texts (Goatly, 2007). Last, it is also essential to mention that metaphor is a resource that can also be expressed visually and multimodally (Forceville, 2008), and in this study we also pay attention to

the visual metaphorical patterns ideologically relevant in the texts examined. This analytical aspect is exclusively applied to charts, as they are the sole non-linguistic visual data analysed.

9.3 Force-dynamics (Talmy, 2000)

Force-dynamics analysis is a powerful tool for "understanding how specific patterns can be used in combination to satisfy different strategic goals" (Oakley, 2005: 467). The basic elements of force-dynamics schemas include an Agonist (Ago) as the focal force entity "whose circumstance is at issue" (Talmy, 2000, p. 415), an Antagonist (Ant) as the opposing force entity, tendencies to exert force intrinsic to these entities, relative strength, and resultant of force interaction (Figure 1) (Talmy, 2000, pp. 413-441).



Figure 1. Basic elements in FORCE schemas (Talmy, 2000, p. 414).

Let us examine three, ad hoc examples:

(1) (a) The digitalization of HE is accelerating EdTech investment.

(b) The consolidation of the EdTech sector will require governmental funding.

(c) EdTech investment skyrocketed in 2021.

In (1a) we can observe how 'digitalization of HE' instantiates an Antagonist and encodes a 'push' factor by means of which EdTech's intrinsic forward motion is further accelerated; this example additionally is framed within a SPEED OF ACTION IS SPEED OF MOTION metaphor, enacted by the gerund verb form 'accelerating'. Alternatively, (1b) construes an event in which the EdTech sector is represented as 'in need' of governmental funding, therefore encoding a 'pull' event in which the consolidation of the EdTech sector is the explicit 'pull' factor. In contrast, (1c) is an unimpeded, metaphorical self-directed motion event predicated on a VERTICALITY schema: the direction of the movement is strictly vertical and the verb 'skyrocket' connotes a rapid, sudden growth in investment. While (1c) is force-dynamically neutral, (1a, b) encode push/pull factors alternatively. In this study we are interested in the type of representations invoked by (1a, b), as we understand that the analysis of force-dynamics is a powerful tool for "understanding how specific patterns can be used in combination to satisfy different strategic goals" (Oakley, 2005, p. 467).