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Improving the Lives of Academia-Practitioner Boundary Spanners

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IMPROVING LIVES BY IMPROVING THE PRACTICES OF ACADEMIA- PRACTITIONER BOUNDARY SPANNERS

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ABSTRACT:

There is an ongoing debate on how to what extent and with what outcome academics should seek to impact non-academic stakeholders outside academia. The paper departs from this discussion. It explores based on an empirical analysis of a business-focused PhD program at a research School at a Scandinavian university, which organizational processes and structures are necessary in "the academic scholarly back-office" in order to ensure that the "front office and frontline interaction between researchers and practitioner result in productive, meaningful interactions for all concerned. The paper concludes that to facilitate the individual researcher to successfully occupy and perform from an in-between position with a view to facilitate boundary-spanning behavior in researchers aspiring to improving lives of corporations, organizations and community must be proactively occupying a position between academia and practice.

Search terms/key words: Academia-practitioner gap, boundary spanners, business-oriented PhDs, impact

INTRODUCTION

It has been widely debated if, how, to what extent and with what outcome academics should seek to impact non-academic stakeholders outside academia. Conducting research from a position in-between academia and practice with additional demands of practicability and actionability to supplement the traditional academic success criteria is also much debated in literature in general (e.g. Bansal, Bertels, Ewart, MacConnachie & O'Brien, 2012; Bartunek & Rynes; 2014; Bartunek & Egri, 2012; Nielsen, 2014; Empson, 2012; Pettigrew, 2008; Lalle, 2003; Flyvbjerg, Landman & Schram, 2012). While encouragements to "dare to care" and "improve lives" engage with this debate on a more general level or focuses on specific methodologies of interaction (e.g.; process consultation, engaged scholarship, action research), this paper addresses the issue of seeking to improve lives by improving the work lives and practices of those scholars that seek to make a positive impact in practice in mutually beneficial ways from a theoretically founded, yet highly practical academic (talent and knowledge) management point of view. The paper explores the organizational processes and structures, necessary in "the academic consultation scholarly back-office"; i.e., the internal support functions at universities or internal stakeholders at universities) in order to ensure that the "front office" and frontline interaction between researchers and practitioner result in productive, meaningful interactions for all concerned. The paper departs from how business schools/universities can facilitate "academia-practitioner boundary spanner performance, i.e.; facilitate interactions between academic and practice through value creating boundary-spanning. The fulcrum is a business-focused PhD program at a research School at a Scandinavian university with a view to outlining institutional facilitation of dual-allegiance academic knowledge creation. The objective is to pinpoint fears, benefits and potential contributions of internal university stakeholder in academic institutions for facilitating opportunity for the individual researcher to successfully occupy and perform from an in-

between position with a view to facilitate boundary-spanning behavior in researchers aspiring to improving lives of corporations, organizations and community by proactively occupying a position between academia and practice.

Boundary-spanning opportunity and organizational facilitation

Creating useful practice-oriented research requires scholars to bridge or productively inhabit a challenging interface—the “in-between” landscape of the academic-practitioner gap. It has been suggested that “the reason why the research-practice gap endures is that bridging it is beyond the capabilities and scope of most individuals” (Bansal, Bertels, Ewart, MacConnachie & O’Brien, 2012, p. 73). This concern raises questions about the nature of such deficiencies. Since competencies and capabilities are defined by their utility vis-à-vis the fulfillment of a particular goal, a research-practice competency gap must be viewed in relation to the context of key boundary-spanning practices. The competency of the individual researcher for productively inhabiting the interstitial space is only part of the challenge of academia-practitioner boundary spanning when seen in a performance-perspective.

Performance hinges on the presence of ability, motivation, and opportunity (Blumberg & Pringle, 1982), which can be conceptualized as the basic equation of individual performance (Boxall & Purcell, 2016). The performance equation, also known as the “AMO-model”, holds that performance (in this case successful academia-practitioner bridge building and collaboration) depends on the simultaneous presence of, not only competency, Ability (A), and commitment, Motivation (M), but also of Opportunity. That is, performance comes about as the result of taking or creating the opportunity to ensure competent committed deployment of skills and other resources with regards to obtaining a particular goal (Jackson & Schuler, 2002; Jackson, Hitt & DeNisi, 2003; Schuler, Jackson, & Storey, 2001). In effect, a person may be both competent and committed to doing a job, but if you are not the right person at the right time and place, no performance results. Without undervaluing the importance of

motivation and ability, this paper addresses opportunity from an organizational perspective in that this dimension seems to be an overlooked and underestimated vehicle for the pursuit of social and academic impact of research. Our exploration of the organizational, systemic components for creating and facilitating boundary spanning researcher performance takes its point of departure in a group of researcher who are not only mentally but also formally and physically placed with a foot in each camp – PhD fellows of jointly funded government-industry business-focused PhD program in a university in a Scandinavian country.

The case study: A Scandinavian ‘Business PhD’ Program

The empirical basis for the paper is data from the context of a particular group of practitioner-academia boundary spanning researchers who we will refer to as “Business PhDs” in the following for anonymity purposes. Business PhDs are a group of PhD fellows, which are formally placed with a foot in each camp dividing both their funding as well as their time and physical presence between a university and a private corporation for the duration of the PhD study. This is a practitioner-focused doctoral education, which can be considered a “double impact degree,” where traditional PhD education is supplemented by additional requirements for practice impact. The Business PhD fellow is employed by the corporation, which applies for subsidy from a National Innovation Foundation based on a research project application. Besides some few minor special initiatives, the Business PhDs are part of the same PhD education as all other PhDs. Research quality assessment criteria are exactly the same as for traditional PhDs, and the final project outcome evaluators are academic (i.e.; the assessment committee consist of researchers just as in any other PhD education). Also, it is important to note that no special program exist for this group of PhDs; they are part of the same PhD education activities as all other PhDs, yet they have additional obligations to also produce practical impact with the corporate host.

EMPIRICAL BASIS – DATA SOURCES

An exploratory mixed method study has been undertaken and involved 17 qualitative interviews with this group of business-focused PhD students, supervisors and other stakeholders involved in Business PhD research respectively as well as a quantitative survey sent out to eight industry focused PhDs enrolled in the program at the time and input from secondary sources. In the following, a presentation of the various data sources is given.

Qualitative data

The qualitative data collected for the study consist of four Business PhDs enrolled in a PhD School at a Scandinavian university representing different project phases as well as different gender. Both students employed by the host company before the PhD as well as students recruited directly into industrial PhD employment participated. Two were originally graduates of the university, two originally came from other universities; fellows represented five different university departments within the sphere of management, finance and economics. In addition, interviews were conducted with five industry focused PhD supervisors. Also, eight interviews with other stakeholders of industry focused PhD education were conducted with:

- a) Three representatives from the government funding body offering the industry focused PhD education;
- b) A former dean of research at the university with significant experience with double hurdle-research such as industry-focused PhDs (including as a supervisor);
- c) A former case university representative in the externally staffed academic council who makes funding decisions for applications to the industry-focused PhD program who holds the university's longest track record for supervision of industry-focused PhDs;
- d) Two representatives of the research school where the industry-focused PhDs in question are enrolled; and

e) A director for R&D Academic Fellowships in a multinational corporation based in the Scandinavian country where the case is set. This corporation is the single largest employer of traditional as well as Business PhDs in focus in this study.

In addition, participant observation were carried out by the first author at obligatory information meetings held by the funding body as well as field notes from her activities as mentor and application coach for current and future industry-focused PhD fellows.

In making sense of these data, the authors have consulted a number of secondary data sources on the Business PhD program from the research school as well as from the funding body.

Also we draw on our previous and current professional experience with Business PhD education, including completion of a Business PhD, supervision of 20 Business PhD students, service on Business PhD assessment committees as well as advisory work for the Business PhD funding body

Quantitative primary data: Survey

Based on the information obtained in interviews as well as secondary data sources, a questionnaire was crafted which inquiring into background information, the Business PhD application process, collaboration with host company and collaboration with university. Total population was 16 Business PhDs enrolled in or very recently graduated from the PhD School at the time of data collection and the number of responses received was 6, equaling a 37,5 % response rate.

A STAKEHOLDER APPROACH TO BOUNDARY-SPANNING OPPORTUNITY

A stakeholder approach to data presentation been chosen to highlight that a larger group of stakeholders impact the state of Business PhD research and the way in which they are able to

successfully occupy a research position in-between academic and practice in effect being boundary spanners connecting everyday lives of practitioners with the academic knowledge production milieu. Based on the data sources presented above, the following sections of the paper presents highlights of the boundary spanning conditions of Business PhD research in a stakeholder perspective covering the Business PhD fellows themselves, PhD supervisors, PhD host companies, PhD university host department, and the PhD School and host university management. For each stakeholder opportunities for and obstacles associated with successful Business PhD boundary spanning as well as potential contributions of the individual stakeholder for facilitating successful boundary spanning is presented and summed up in a full stakeholder analysis in the conclusion.

Stakeholder #1: The Business PhD fellow

The Business PhD fellow is employed by the company in which the research takes place (three year fixed-term contract) and paid a salary during the Business PhD education dividing work between the university and the company. Thus, the PhD is enrolled, not employed, in a university. In some cases, the industrial PhD was already employed in the host company prior to engaging in the PhD project and plan to continue in a non-academic job position after project completion, thus enjoying what ‘insider action research’ expert Coghlan (Coghlan & Brannich, 2009) describes as a ‘complete membership’ position. Others are recruited directly into the Business PhD position as organizational newcomers without any automatic continuation of employment after project completion. In these cases, the project idea is usually initiated by the future university supervisor who already has collaboration with the company. Motivations for doing a business PhD varies, ranging from lack of ordinary PhD positions to corporate career enhancement opportunities demonstrating the fact that although most Business PhD students find employment in the private sector upon completion, around

25% take up careers in academia (personal correspondence with funding body business PhD program manager).

Business PhD researcher in-between two worlds

The Business PhD serves a number of different masters simultaneously, crisscrossing fault lines of divergent interests and different outcome success criteria in different groups of stakeholders. The role of the Business PhD closely resembles the role known in organization theory as a bridge maker (Pfeffer & Salancik, 1977) or boundary spanner (Aldrich & Herker, 1977). This role is the role of the (cultural) brokers transcending inter- and intra-organizational boundaries and borders through networking, social capital build-up (Lin, 2001), knowledge transfer and empathy towards points of view of internal and external “others”. Thus, the boundary spanner's function is that of a messenger and go-between of different dominant logics (Prahalad & Bettis, 1986) and rationales, and the sought-after results of boundary spanning are enhanced knowledge sharing and absorptive capacity by active liaison and stakeholder management, forging common ground and discovering new frontiers in the organization. The Business PhD serves a number of different masters simultaneously, crisscrossing fault lines (Bezrukova, Jehn, Zanutto & Thatcher, 2009) of divergent interests and different outcome success criteria in different groups of stakeholders. Successfully mastering the in-between and both-and of academia and business requires the researcher to act as a ‘boundary broker’ (Wenger, 1995) engaged in boundary spanning (Ernst & Chrobot-Mason, 2011) bridging different communities of practice. A Business PhD must act as a spanner in the web bridging and transcend different institutional logics (Thornton & Ocasio, 1999; Suddaby & Greenwood, 2005), possessing the ability to master and seamlessly alternate between logics and frames of reference. This dual allegiance (Black, Gregersen & Mendenhall, 1992) nature of the Business PhD employment relationship requires the Business PhDs to pay tribute to potentially conflicting demands through fault line management

(Barner-Rasmussen & Michailova, 2011) – primarily represented by the academic quality standards in the university setting on the one hand and practical profit concerns and demand for turn-key ‘management tools’ by field members on the other. The experience of doing research from this in-between position is expressed by one interviewee as follows: *“I have often heard the analogy that industrial PhDs are like a divorcee child from a broken home. And really, this is how it feels. It sounds banal perhaps but you are torn between two worlds in all things big and small. For starters, I have two work mails and calendars that I have to coordinate for instance.”* (Interview # 3).

Across the board, Business PhDs in this study feel that they are different from traditional PhDs (PhD School survey). The main reason for this is that they have to navigate two worlds and collaborate with two partners who at times have different objectives. One industrial PhD elaborates: *“The [Business, ed.] PhD project is different because it is 100% relevant, on the other hand there is not much time to study and it is a big challenge that the academic process, the academic methods and the theories are not very important to my stakeholders in the industry.”* (PhD School survey, Open question). In effect, *“the pace is higher, the flexibility in e.g. work hours are different”* sometimes resulting in *“double workload”* (PhD School survey, Open question) and a research job characterized by additional *‘emotional labor’* (Interview #3) caused by a challenging stakeholder set-up.

The three musketeers of Business PhD research: The importance of trio meetings

Co-creation of research in-between academia and practice is a difficult balancing and boundary spanning act. In order to succeed, the project trio of Business PhD student, host university supervisor and host company supervisor need to meet regularly and regard each other as a team. Based on their experience with successful and failed Business PhD projects, the funding body recommends that the trio meets at least 3-4 times a year (participant observation, author 1, May 2016). Unfortunately, this is not the general practice with

Business PhD projects in our case study: Not only does the project trio meet much less often than recommended. There is also ample room for improvement with regards to the quality of the interaction in that 66% find the collaboration to be ‘poor’ or ‘very poor’ (PhD School survey). The relatively poor ratings that the collaboration between the project trio of Business PhD student, host university supervisor and host company supervisor, is also explained in the interviews by the assessment that academic advisors have little or no business experience and business partners do not know of academic work/research management (Interviews # 2 and 3). Students suggest that supervisors in both host company and host university be better prepared for the specificities of a Business PhD supervisor role and get together and share their knowledge on best/better practices.

‘Research nowhere land’ – need for scholarly assistance for researching in-between

Perhaps as a consequence of this position as the mediator of different frame of reference of main stakeholders that rarely meet and share little common ground, Business PhD students find it helpful to network with others Business PhDs that share this experience (Interviews # 1, 2 and 3). The general level of networking is low, however. No students strongly agree or agree with the statement “I often network with other Business PhDs at the department of elsewhere at University X”, while most disagrees or strongly disagrees (PhD School survey).

Fostering increased Business PhD networking seems to be an area where action is needed, because Business PhDs experience that (net-)working with other business PhDs is both attractive and academically relevant for them. Remarking on taking a PhD course where many other Business PhDs were enrolled, one Business PhD fellow recalls: *“I was so pleased to meet other Business PhDs, which I haven’t here at University X. It was really amazing to suddenly find myself in a room with 50 other persons experiencing exactly the same problem as me; that is I was not all alone with the feeling of being torn between the university and the company.”* (Interview #1).

Not only course work where there is a change to meet other academia-practitioners boundary spanning students are in demand; also PhD courses that address the specific position of the Business PhD from a theory of science and methodology perspective are in demand. Seeing as only a minority of Business PhDs conduct action research in their project, the balancing act of doing academically sound research in an organization where you are employed when not engaged in methodologies where an emic view is a mark of quality, is seen as a challenge. One Business PhD describes his own research position as that of an “involuntary ethnographer” in a “research nowhere land” (Interview #3) and feels very left to carve his own path methodologically as even seasoned and estimated double-hurdle scholars do not really know what advice to give: *“He said a lot about all the positive things about engagement with practice, but when it came down to the practicalities of actually doing it, he had absolutely nothing to contribute with – the challenges, dilemmas and so forth. He ended up saying to me and the other Business PhDs participating in the course that ‘you are the most engaged group of scholar I have ever seen’. That left me thinking, ‘well if he doesn’t know what to do, then, who does know? You are pretty much left to figure it out for yourself!’* (Interview #3)

Thus, there is a need for both emotional support of like-minded in-between researchers, but also for professional support for academically handling the in-between research position (for a general discussion of this dilemma, see Empson, 2012 and Nielsen, 2014).

Stakeholder #2: Host university supervisors

Business PhD projects are sometimes initiated by a future Business PhD seeking to do a research project with his or her current employer. Projects are also, however, just as likely to have been initiated by university researchers (PhD School survey). Regardless of the initiating party, university supervisors often take active part in the Business PhD application process. Interestingly, however, 1/3 of students had prepared the application alone, and 1 in 6 with the

active assistance of the host company supervisor. And so, about half the applications were prepared without assistance from university supervisors.

When asking the supervisors that initiate and/or participate in Business PhD projects why they have done so, it is not only the aspiration to create a vibrant research milieu with numerous PhD students around them – or in the light of the current funding situation the aspiration to have any PhDs at all... (Interviews # 6 and 7). Initiating Business PhD projects is also a consequence of a general attitude towards the timeliness of working closely with practitioners when doing research at a business school (Interviews # 12 and 13) despite the inherent difficulties of difference of interests and 'double-hurdle research' (Pettigrew, 2008). The opportunity to get a valuable insight into practice and create relations that extend beyond the Business PhD project as well as unique data access also feature centrally (Interviews # 8 and 9). On the downside, a potential underfinancing of Business PhD university subsidiary is accentuated by the fact that some supervisors feel that it takes more time to advise a Business PhD than traditional PhDs because of the complicated stakeholder set-up (Interviews # 8 and 9). Other supervisors see field trips and collaboration with practitioners as part of the fun although "*Getting on each other's wave length was quite complicated*" (Interview #12) thus countering the observation "'*Oh, it takes a lot of time*' with '*Yes, but isn't that interesting?!*'" (Interview #12).

Research style fit

PhD students voice concern that more energy should be put into preparation of Business PhD supervisors and knowledge sharing between advisors of successful Business PhD projects – which is also backed by the supervisors who call for knowledge sharing and codification of industrial PhD knowledge creation (Interviews #5,6 and 7). Business PhD is blue ocean funding, but it's not for everyone, and supervisors recommend careful consideration of fit between the requirements of an Business PhD project and personal research style in general

and the concrete knowledge interest in particular (Interviews #5 and 12). Central to this consideration is: a) that the supervisor enjoys a close and pro-activist style of supervision, b) that the research interest/research question/research design is well-fitted for harvesting the benefits of co-creation and c) that the supervisor is flexible and prepared to accept a certain degree of project drift to benefit from the deep access and business interests. A research idea/project, which is rather narrowly defined, could perhaps be better pursued in a different setting (Interview # 12 and 13).

In effect, the host company, the supervisor and the student need to subscribe to a research model of co-creation, which may serve as a vehicle for mutually uncovering blind spots, creating awareness and engagement and decreasing development time. These benefits can, however, only be harvested if the participants are genuinely interested in discovery and exploration. Guidelines to assist potential supervisors in Business PhD project research idea-matchmaking is suggested as a vehicle for improved collaboration giving advice on the circumstances under which framing a research project as a Business PhD project make sense and how can you design for successful collaboration and mutual benefit within an Business PhD framework.

Intellectual property rights: Real and imagined fears

University supervisors often take part in preparing the Business PhD application, which also invites the applicants to take a stance on intellectual property rights. Still, only half the Business PhDs participating in the survey answered 'yes' to the question of 'Does your Business PhD application specify under which circumstances you can publish material based on data collected in your host company?' Conversely, in half the projects intellectual property rights were not part of the application, which has status as contract between government funding body and the company upon the host company's signature. Even if intellectual property rights are mentioned in the Business PhD application, the individual employment

contract between host company and Business PhD students often fail to explicitly give the Business PhD ownership of data (PhD Survey). This is potentially problematic as inventions produced while being in an employment relationship automatically are owned by the company if nothing else has been agreed upon (Participant observation, first author, 2015). Yet, students are usually left to themselves in negotiating the employment contract, which also entails a negotiation over salary and other benefits and thus could seem as a personal matter. It is, however, a personal matter with intellectual property right consequences.

Generally, however, supervisor fears that the Business PhD set-up is automatically problematic from an intellectual property right point of view are highly exaggerated, as very few instances of conflict arise over data ownership (Interviews # 10 and 11). This may stem from the fact that social science is different from for instance the natural sciences where patenting of new products is at stake and where competitors may copy-paste results into their own business. This is often not the case when social science is concerned and given the pace of change in the world of business, information published 1-3 years after the fact will hardly change the course of events in the market. Furthermore, competitors are unlikely to benefit from copying as the knowledge produced is highly contingent upon the context in which it was produced (Interview #13).

Supervisors as project focus safe guards

No evaluation of the business PhD program has been made with a special view to social science projects or business PhD projects hosted by a particular university. Based on years of professional experience, however, the funding body experts point to the fact that it seems that many social science business PhDs in general, and business school Business PhDs in particular take on far too many tasks that are unrelated to their project, i.e. their workload consists of many non-project relevant activities (Interviews # 11 and 12). This may be

because the fellow takes on consultancy jobs, presentations/workshop facilitation and teaching outside the host company which goes well beyond the knowledge dissemination obligation of the Business PhD or within fields unrelated to the project. This is particularly pertinent for the group of Business PhDs that carry out their project in a corporation where they have been employed prior to embarking on their Business PhD, and job tasks from the fellow's 'old' job description may find their way to the fellow's desk because colleagues are unaware of their change of role or due to plain habit, or because the fellow regresses into the comfort zone of familiar territory that they can solve successfully – particularly when the research project is in its infancy or goes through a tough period (Interview #11). Also, the host company may be inspired by the competence of the PhD researcher to delegate new tasks to the newcomer (Interview #12). In effect, some industrial PhDs find themselves to be 'consulting moonlighting' or otherwise working two jobs and the Business PhD funding body university supervisors to proactively help out their students solving this as (too) many students feel alone with this issue which they also feel unable to handling: *"The university supervisors have a special responsibility in this respect as the university supervisor is typically the only one who really knows what a PhD education is and what it takes to complete it."* (Interview #10). In other cases, however, there may also be too little interaction which also might jeopardize the project: *"You often hear about [Business, ed.] PhD students that are drawn into operational task in their host company. I didn't experience that problem at all; I had lots of time for my project, but in return there was no synergy between the project and the host company at all."* (Interview # 2). Striking a balance between academic performance and corporate performance is by a very challenging boundary spanning task of the Business PhD student and one where supervisors can play a particularly important role in that they might be the only party in the group who actually knows what it takes to complete a research project/PhD.

Stakeholder #3: The university host department

The university host department is the academic home of the Business PhD student and usually of the student's main supervisors (even if examples of supervisors being away as visiting professors abroad or similar do exist). The Business PhD student are encouraged by the funding body to spend 50% of his/her time at the university, yet the division of time can be decided upon as the collaborators see fit (Interview #10 and 11). And it does seem instrumental to successful boundary spanning that it is agreed upon upfront, how the student will divide the time. A 2013-study carried out by the funding body found that both university and host company felt that the other party was getting more student attention than the other (Interview #16).

Suffering from 'out-of-office liability'

That division of presence time between the university and corporation is an important topic is a concern, which is shared by PhD school representatives (participant observation PhD School Board Meeting Minutes, May 22, 2015) as well as Business PhD students. This concern is shared by University Business PhD host departments as well as Business PhD students: *"I spent 80% of my time in my host company and 20% at University X. In hindsight, I should have spent much more time at the university."* (Interview #3). Further, a Business PhD supervisor reflects about a previous student: *"I guess she suffered from being away from the department"* (Interview #13).

One of the consequences of being physically away from the host department is that Business PhD students do not feel as an integrated part of their university host department. Only 17% of survey respondents agree that they feel like an integrated part of the research environment at their university department, while 67% state that they disagree with the statement "I feel like an integrated part of the research environment at their university department." When asked, who the Business PhD students feel is showing engagement and interest in their

projects, the Business PhD supervisor is the main stakeholder mentioned (all respondents list supervisors) followed by head of department (3 in 6 respondents) and other researchers in the department (2 in 6 respondents).

On the periphery of the 'teaching machine room'

In addition to being 'out of office' half or most of the time, another reason for the lack of integration mentioned in the qualitative interviews, is that Business PhDs are not part of the "university machine room" of teaching (Interview #13). Business PhDs have no teaching obligation, and instead have an equivalent knowledge dissemination obligation in the host company as well as to the wider business community and society at large (being the only formal difference between Business PhDs and traditional PhDs). It is not clearly established in the Business PhD regulations how many hours should be spent on knowledge dissemination, but advice given by funding body (participant observation, first author, October 2016) suggest that the dissemination obligation of Business PhDs take up an workload equivalent of the teaching work load of regular PhDs. Interestingly from an "integration-through-the-teaching machine room"-perspective is that part of the knowledge dissemination obligation may be fulfilled by teaching. This opens up an avenue for integrating Business PhDs through teaching activities – even when no formal obligation to do so exists.

Physical, virtual and emotional working environment

A different avenue for addressing the widespread feeling among Business PhDs of being peripheral and anonymous to the host department is inclusion into social and academic events as well as into onboarding activities. Most Business PhDs of this study has experienced exclusion from social or academic events in their department in that 17% state that they strongly agree with the statement "I often participate in meetings, conferences or seminars at my department", while 50% disagrees. Also, there is a general issue of handling practicalities such as getting a desk (!) or waiting months for a book shelf (Interviews # 1 and 4) and a

general dissatisfaction with the physical working environment (Interviews # 2 and 4). As a consequence, industrial PhDs are likely to work from home or at the host company:

“Honestly, if I had to sit in a crowded room with four other people in a big noisy mess, I’d never get anything done. Then I much prefer to sit at home or at my host company.”

(Interview # 4).

Also, Business PhDs may be commuters because their host company is in a different (potentially far away region of the country (Interview #1). Depending on the geographical location of the Business PhD student’s home address, ‘popping in’ and ‘hanging around’ is less likely to take place if you have a long trip ahead of you. Further, university IT support for non-host university laptops may prove difficult (Business PhDs do not have university computers unless they have a desk with a PC which they often do not). Generally, data suggest that Business PhDs as non-university employees are not automatically included in the HR and personnel management processes and structures surrounding university-employed researchers. None of the host departments involved in this study have special procedures or processes in place with regard to how they manage their Business PhDs (or other non-standard work relationships).

Stakeholder #4: Doing business with academia – the corporate hosts

“In [Private Corporation Z, ed.], we are – or at least I am – uncomfortable with acting on gut feeling or intuition alone. With this research project we were able to practically explore from a firm theoretical grounding if ‘group mindset’ was at all possible in our business – conduct a sort of sanity check. “ (Business PhD host company CEO, April 2014). With a Business PhD, the corporate hosts potentially get access to state-of-the-art research and just-in-time knowledge production as well as real time solving of practical problems. They gain access to unique, yet relatively cheap knowledge with competitive advantage potential as opposed to

of-the-shelf consultancy services available to anyone who pays up – including competitors: “*They [the host company, ed.] spend millions on McKinsey consultants, but that is standardized knowledge, so they felt the need to be challenged and to get something different than their competitors do not have although they did not know exactly where the project would end up.*” (Interview # 3). Further, the host company accesses a symbolic capital pool of academic knowledge production in that there is a brand value in hosting a PhD, even if this value proposition may turn out to be a double-edged sword if image management trumps genuine interest in the research project at hand: “*They [the host company, ed.] were rather vague in their input regarding what they wanted out of the project. Mostly, I think they entered into the Business PhD project for the sake of the PhD, that is because of the signal it enabled them to send externally ‘look, we conduct our own research – isn’t that grand’. The PhD was like a cherry on the top.*” (Interview # 2). A similar outcome may be the result of Business PhD collaborations which the company has entered into as a ‘development bonus’ only to retain a key talent (Johansen, Flinn & Nielsen, 2012) or in cases where acceptance of job offer was made contingent upon acceptance of participation in industrial PhD application (Interview #1).

Host companies – inexperienced in research management and PhD education

4/6 host companies have employed Business PhDs before. Host companies may, however, at the same time be inexperienced in (social science) research management in that prior experience with hosting Business PhDs does not automatically convert into experience in hosting another Business PhD at a difference point in time. This is may be due to fact that the corporate participants may not be the same as with previous Business PhD projects (Interview # 14). And so 4/6 students state that their host company has little or no knowledge of what a

PhD education is which is emphasized by the fact that the majority of host company supervisors (5 in 6) do not hold PhD degrees (PhD School survey).

Interestingly, experience in hosting natural science Business PhDs are not necessarily instrumental for dealing with social science PhDs, as the social science PhD are usually situated in a different part of the organization than where natural science Business PhDs are situated and the knowledge interests and knowledge production mode may depart considerable from natural science standards (Interview # 14). Experience reported in secondary data sources suggest that although having a host company supervisor who holds a PhD degree is generally instrumental, having a host company supervisor who holds a natural science PhD may indeed prove counter-productive, for instance if the methodological approach of the social science PhD student depart fundamentally from that of the host company supervisor; for instance ethnography/field work (e.g. Van Maanen, 1998) or action research (e.g. Coghlan & Brannick, 2009). In addition, most host companies do not have a research and development department within the field of study of the Business PhD suggesting that the Business PhD is not surrounded by like-minded colleagues and research who might be able to help in the process – even in the cases where the host company might be R&D-intensive in other areas (Interview #15). Only 1 in 6 students are employed in a host company who has a research and development department within their field of study.

In some cases, the host company is immature or inexperienced in research management suffering from some of the known side effect of carrying out research in a non-research environment where absorptive capacity with regards to research knowledge is low: *“The organization [the industrial PhD host company, ed.] was not geared to hosting and a Business PhD which among other things entails that you can assign a competent internal supervisor. This wasn’t the case for me. First, my supervisor was not academic enough – he was not at all prepared.”* (Interview # 2) .

Generally, the collaboration with the host company is viewed rather negatively by students: Even if only two in six Business PhDs would change the Business PhD host company if they could go back in time and start the doctoral program over, only two of six industrial PhDs would recommend their host company as host for future industrial PhDs (PhD School survey). This finding is in keeping with the experience of the funding body's program management listing a collaborative break-down due to irreconcilable differences between the parties arising from the inability to manage business-academia conflicts constructively as the number one reason in the case of untimely project termination (Interview# 10 and 11).

The challenge of unrealistic and changing expectations

The majority of students have one company supervisor whom they meet with approximately once a month. This rather frequent interaction does not, however, seem to bring the parties closer in terms of calibration of expectations with regards to the research process and outcomes. When asked to what extent they agree with the statement "My host company has realistic expectations with regards to the speed of progress in my research project" 66% disagrees or strongly disagrees, while 33% agrees. The Business PhD, then, may be unable to live up to (unrealistic) high expectations from the business community with regards to the "magic of research" (Interview #3) thinking that the researcher may have access to special knowledge capable of producing rapid results: "*They [the host company, ed.] couldn't really figure out how they should involve in the business. And they had unrealistic expectations as to what results I could deliver.*" (Interview # 2).

In addition, many Business PhD students experience a change of host company supervisors (PhD school survey; interview # 1, 2 and 4). Change of supervisor(s) and or strategic changes jeopardize project progress, value and timely completion and erode social capital. This is particularly the case, if the supervisor leaves the company altogether or in the case where a new management team taking over: "*After the first year in the host company, the*

management team that employed me was laid off. A new manager arrived; he let me stay. But there was nobody left in the organization with any kind of ownership for the project.“

(Interview # 2).

Further, even if a new, committed supervisor is appointed, the priorities of the new supervisor might be different than the original project plan: *“Change of supervisor may also entail a demand for a different research approach. And the world around us also changes. So the project has changed considerably in the process.”* (Interview # 4). Having two supervisors lowers the vulnerability with regards to project supervision, but does not, however, safe guard practical value in the face of strategic changes. Working with an internal project board consisting of prime beneficiaries of the project in the organization is also recommended as a mechanism for securing project value (Interview #3) as is pre-project application field work in the host organization in order to build a personal network as well as tapping into local knowledge sources (Interviews # 2 and 3). Funding for such fieldwork has not been available in any of the cases included in this study, although some students have engaged in pre-study fieldwork con amore.

The learnings of collaborating with business on research projects through the Business PhD program are not in the specific case harvested by the PhD School or host university in any systematic manner, for instance through ‘corporate exit interviews’. This knowledge could be instrumental with regards to harvesting useful input for collaboration with practitioners in future projects as well as minimizing the risks for corporate bad will towards PhD School and the host university in general stemming from negative experiences with Business PhD research. Corporate bad may entail that the university is cut off from approaching the company with ideas for future PhD projects or other forms of collaborations. Business PhD students also suggest that proactively taking measures to prevent problems from arising would be beneficial, for instance by formalizing the three-partite collaboration in a ‘collaboration

contract' between fellow and supervisors at both university and host company as standard operating procedure or simply paying the host company a visit and explaining about the academic side of knowledge production and the associated key performance indicators for Business PhD students (cf. survey, interviews # 1, 2, 11, 12, 13).

Stakeholder # 5: Host university PhD School

“The really big challenge is that the [Business, ed.] PhD has to have so much ‘guts’ that she can carve out a role for herself in the host company. In the host company environment, the only one who ‘has her back’ is the [Business, ed.] PhD herself.” (Interview #13).

Business PhD projects are in their very nature less controllable than traditional PhD projects from a PhD School point of view, because of the fact that they are only physically present at the host department at the university relatively seldom: Early warning systems of informal corridor chat and spontaneous coordination by popping into each other's office is less likely to take place when the student is spending 50% or more of his/her time away from university. Further, Business PhDs fly below radar with regards to standard onboarding procedures and other HR-systems for university employees as they are not employed by the university, and they are doing research in a complex multi-stakeholder field where a private corporation 'owns' 50% of the shares and is the actual employer. So, university standard procedures may be competing with standard procedures in the host company.

So, in general the risk profile for Business PhDs are higher than for traditional PhDs. Viewing the Business PhD experience from a student point of view, only half the students in the survey rate their experience with doing an Business PhD as good/very good leaving the other half with assessments of acceptable or poor. However, all students would recommend being a Business PhD to others (PhD School survey). This might suggest the general ambivalence of the merits of the Business PhD platform for doing research or as one Business PhD supervisor

reflects: “[*Business, ed.*] PhD is a troublesome path, but an important path” (Interview # 5). It should be mentioned, however, that no solid data exists with the PhD School or the funding body as to whether or not Business PhDs are less likely to be delayed in handing in their dissertation or more likely to have receive a revise and resubmit from the assessment committee. The general sentiment among the representative of the funding body and PhD School representatives is that Business PhDs are that Business PhDs are not necessarily less likely to be delayed or have a first dissertation submission dismissed. It is, however, mentioned that some believe that Business PhDs are less likely to make a theoretical contribution with their research and can experience difficulty in having their data accepted in journals due to lack of knowledge of the inner workings of the Business PhD program as well as general concerns of bias and data pollution. No data exists to this effect, however, and so these sentiments may be testimony of academic prejudices against Business PhD research rather than a lived experience in that academics advancing such arguments often have little or no experience with Business PhD research (Participant observation, first author, May 2015; Interview 7 and 10).

Guidelines for industrial PhD onboarding & collaborative best practice

One avenue for supporting a successful research process and product is for a PhD School to collect and not least share best practices and experiences on Business PhD and formulate guidelines for Business PhD onboarding and collaborative best practice’ (Interviews # 1,2,3, 5, 13 and open questions in survey). In addition to general guidelines, some supervisors and students call for a working group/task force on ”the good Business PhD project” so as to be able to ‘design for success’ (Interviews #5, 6, 7) and general supervisor knowledge sharing and competence development is put forth as areas of development (e.g. Interview # 2, 3). Further, a Business PhD mentor program (cf. first author participant observation in PhD school pilot program at another PhD school the same case university) could prove

instrumental for both supervisors and students in collaborative quality assurance and access to existing knowledge resources at the university as well as concrete input. Inputs may for instance take the form assistance in project screening or application coaching.

As a supplement to the advice already available from university research support which focuses on meeting the requirements of the funding body, that application success, helping applicants design for project process and outcome success seems relevant. For instance, recruiting candidates for Business PhD projects is an area where different competences are in demand: *“The PhD candidate is always important, but even more important with regards to industrial PhDs because the competence base is broader.”* (Interview #13).

Knowing the ins and outs of host university research management

In general, Business PhDs have relatively little to say about the PhD schools current involvement in their projects in the data collected. Indeed, finding your way around the system of roles and responsibilities of what supervisors can do, what the student can decide for herself (for instance use of funds), what the local PhD supervisor can do, what local head of department can do and what the PhD school can do is difficult (Interview #1,2,3,4). There is agreement about a general dislike for the administrative processes surrounding Business PhD education. Practically all Business PhD students feel that many of the general university PhD management processes are not adequate or at times meaningless/counterproductive for Business PhDs or as one interviewee bluntly puts is *“Well, this a really a pain in the.... It is a total waste of time.”*(Interview # 4). Now, administrative processes are never an easy sell, but this group of students typically have ‘double book keeping’- issues as they are part of two – incompatible - systems with regards to mails, calendars, intranet, management information systems and performance review rendering them more susceptible to experience the systems more negatively as well as being negatively impacted by these processes. Further, spreading knowledge on the university procedures for accepting to host an Business PhD project seems

timely as some interviewees voice their surprise about the fact that the application preparation for the funding body has to be preceded by a project approval by a PhD School at the university: “*I was really surprised to learn how many processes I had to get under control at [the host university, ed,] even if I had enthusiastic project partners. I thought that hosting a project was a matter to be easily decided upon by the individual department.*” (Interview # 1).

As only half of the Business PhDs have received active university supervisor assistance in preparing the Business PhD application, knowledge of host university processes cannot be taken for granted and thus need to be communicated, particularly to the part of the candidates that comes up with the project idea themselves.

Industrial PhD employability and research brand

Another issue arising from interviews is the career prospects of Business PhDs. Some students feel that the general employability of Business PhDs is a challenging issue: On the one hand, some students experience that business employers are generally ignorant of unaware of what an Business PhD is that employers fear that the candidate will be too theoretical and too slow in decision-making (Interview #2). On the other hand, academic career prospects are dim, as Business PhDs may lose out in competition with traditional candidates. This may be particularly the case in the current situation of discussions of PhD as a career dead end as most of the Western world struggle with an overproduction of PhDs – a situation also discussed in higher education in the country where the case is set. And as one industrial PhD supervisor remarks, there is no dual-career track (business and academia) structure in PhD education or academia in general and describes academia as self-reproducing and self-referential system (Kieser & Leiner, 2009). A career move from and Business PhD into academia is relatively rare as the Business PhD “*in essence is a foreign substance vis-à-vis the academic career system*” (Interview #5). A PhD School may work to enhance the general level of knowledge about Business PhDs – both with regards to living up to a social

responsibility vis-à-vis securing employability of enrolled candidates as well as attracting new candidates/projects (Interviews # 6,7, 8, 9, 12 and 13).

Stakeholder #6: The host university

In recent years, politicians have put increasing pressure on the academic environment for demonstrating concrete, practical value of research activities in relations to both educating innovative, competent workers as well as for contributing with knowledge that may enhance the corporate and national competitiveness as well as the efficiency of the public sector. 'Mode 2'-knowledge production in alignment with the increased strategic focus on outreach activity characteristics of strategies of many business schools today, and the Business PhD program can serve as a text book example of the establishment of (potentially) a win-win situation for both practitioners and researchers based in collaborative advantage (Hansen & Nitin, 2004). And so, the Business PhD is born to span the academia-practitioner divide and addresses the increasing political demand vis-à-vis universities to deliver societal value and impact of their research activities and to demonstrate a higher degree of engagement with practice. In addition to the symbolic value and political legitimacy that hosting many Business PhD students can have, there are also more direct financial implications. In a university environment where external funding becomes increasingly important as a source of research funding in general and PhD funding in particular, receiving a government subsidy and sharing cost with a private corporations makes a possible to enroll more PhD students that would have otherwise been the case, in effect finding ways of growing the research budget even in a consolidation or cut-back scenario (Interviews # 12 and 13).

Further, beyond research support in the form of information and application support about this specific type of funding, management may in general advance the merits of Business PhD research at the university, in effect taking an active stance on the attractiveness of this form of funding to counter a general unease about researcher carried out (too) close to practice.

Discussing Business PhDs easily turns into a general, abstract debate on the pros and cons of conducting research in close collaboration with practice. In practice, relatively few researchers in the case university have personal experiences with Business PhD research giving rise to a number of “myths” about Business PhD research such as “quality standards are different” in effect labelling Business PhD research as less theoretically informed second rate research or “this spell trouble with regards to independence and publication.” (Interviews # 12 and 13).

Also, the view of the Business PhD program is connected with the general research mode of senior researchers: *“Now, if you could imagine a person saying ‘I have many well-established ties with industry, but industrial PhDs, now there’s a problem’, I’d be very interested in talking to them”* (Interview # 13). Several supervisor interviewees think that a higher number of Business PhD applications could make sense (Interviews # 12 and 13). A clear, supportive management stance on Business PhD funding could be conducive to raising awareness and interest in the Business PhD program as a funding supplement in alignment with both the host university strategy and resource constraints.

CONCLUSION & IMPLICATIONS

A summary of the main arguments of the six stakeholders of Business PhD research presented in more detailed below can be summed up in an overview of their main interests, fears/problems and potential contribution of the different stakeholders to improving the environment and conditions for successful Business PhD boundary spanning:

Business PhD boundary spanning context	Opportunities	Obstacles	Potential contribution
Student	* Producing research that will meet the requirements of an assessment	* Being caught in the middle between academia and practice	* Engage in active self-leadership and distance management * Step up to identity as project

	<ul style="list-style-type: none"> committee as well as delivering on business value proposition * Self-development * In-road to academia where ordinary PhD positions are unavailable * Career enhancement in business or academia 	<ul style="list-style-type: none"> * Being left too much to their own device * Emotional labor and burn-out: Working two jobs to keep everybody happy. * Post degree employability and job opportunities 	<ul style="list-style-type: none"> manager of multi-stakeholder knowledge production * Actively engage and commit host company and university supervisors * Actively seek out help and advice * Network with other industrial PhD students * Pre-project field work in host company
Host company	<ul style="list-style-type: none"> * Access to state-of-the-art research and just-in-time knowledge production * External “sanity check” with theoretical grounding * Access to unique, yet cheap knowledge * Symbolic capital build-up/brand value of PhD * Retention/attraction of talent 	<ul style="list-style-type: none"> * Candidate will be too theoretically focused * Lack of cultural fit (where candidate is not already employed) * Temporary loss of resource (when candidate is already employed) * Trust-issues concerning privileged information: insider knowledge vis-à-vis stock exchange or competitors * Negative impact on corporate brand 	<ul style="list-style-type: none"> * Actively participate in application formulation * Establish clear business objectives of project * Co-creation mindset * Secure broad project ownership with internal ambassadors * Select competent project supervisors * Educate themselves on PhD education * Prioritize meetings/knowledge sharing activities with student and university supervisor.
Supervisor	<ul style="list-style-type: none"> * Attract PhD talent and increase PhD pool ‘ Getting access to data * Liaison with industry * Experiencing theory in practice 	<ul style="list-style-type: none"> * That externally funded PhDs will be the only source of PhD funding * Time consumption * IPR challenges * Project hijacking * Publishability of ‘insider’ data research in preferred academic outlets 	<ul style="list-style-type: none"> * Take the lead in explaining the host company what a PhD education is. * Prioritize regular meetings between student, host company and supervisor and relationship building with corporate partner * Come up with relevant Business PhD project ideas and candidates (companies and students) * Communicate success stories to peers * Sharing knowledge with other present or future Business PhD supervisors
Host department	<ul style="list-style-type: none"> * Teaching * Contribution to department publication goals and academic environment 	<ul style="list-style-type: none"> * Business PhDs do not contribute to the research environment and the teaching load * Spend too much time away from department 	<ul style="list-style-type: none"> * Take an active stance on how the department wants to manage their Business PhDs * Discuss how Business PhD can fit into the general milieu and academic environment as well as actions taken to this end. ‘ Consider integrating students into teaching portfolio * Focus on physical and emotional working conditions of Business PhDs
PhD School	<ul style="list-style-type: none"> * Optimize number successful PhD candidates that completes on time * PhD employability * High-quality research * Satisfied PhDs 	<ul style="list-style-type: none"> * A lower/slower rate of PhD completion due to higher risk profile of Business PhD. * Conflicts * Low number of PhDs 	<ul style="list-style-type: none"> * Guidelines for a successful industrial PhD project including onboarding * Business PhD application assistance, mentoring and process facilitation * Internal and external marketing of the Business PhD program * Social events and Business PhD networking

			<ul style="list-style-type: none"> * PhD courses * Business seminars on hosting industrial PhD
University as academic knowledge producer	<ul style="list-style-type: none"> * Productive research milieu * Enlarge research funds * Deliver on strategic priorities on business collaboration * Secure political legitimacy 	<ul style="list-style-type: none"> * Decrease in academic knowledge production * Generational talent gap * Lack of demonstration of value for tax payers' money * Corporate badwill 	<ul style="list-style-type: none"> * Stress Business PhD funding as a welcome and attractive source of supplementary PhD funding * Prioritize collaboration with industry * Provide state-of-the-art research application advice

Figure 1: Business PhD stakeholders – fears, interests and potential contributions.

Business PhD supervisors, host departments, host university and enrolling PhD school strategic initiatives can take as their point of departure how to appeal to interests, neutralize fears and facilitate the materialization of potential contributions to improved Business PhD research as outlined in the stakeholder table above presenting the participants in the study and secondary data sources. (Some specific suggestions of the way in which this might be done from a PhD School perspective is outlined in Appendix 1.) This study suggests that being placed in a dual allegiance boundary spanning position is a research territory that comes with a particular set of additional challenges compared to doing research from a more traditional academic position. The Business PhD is comparable to a “Complete Membership”-position vis-à-vis the field (Adler & Adler, 1995), but at the same time a de facto Complete Membership position in the university setting. Business PhDs are doing research in their own organization, yet have two “own” organizations to accommodate (Coghlan & Brannick, 2009). Business PhDs have to produce academic impact as part of an academic community and the quality standards of PhD research in general; at the same time they are charged with the additional demand of having formally signed a contract to the effect that they will also produce company and societal value.

This “double-impact” obligation is not only relevant in Business PhD research; it is also the demands that are increasingly directed at university research and researchers in general.

Where the concept of academic impact has been refined in the h-index and i10-index

(measures of a scholar's productivity and citation impact) journal rankings, and other well-established metrics, the notion of "impact on practice" remains an elusive one. On the broadest of levels: "Impact' for management scholars could be construed as the influence of our research on managerial practices or policies - and, if escalated further, the potential to create positive societal benefit" (George, 2016, p. 1869). The notion of impact is a troublesome one, however, which renders the task of pinpointing and addressing competencies (or lack thereof) a difficult one, since such competencies are directed toward an ambiguous goal. Indeed, "freedom of research" is mirrored in "freedom of impact" where a pluralism of research styles leads to a pluralism of impacts. Regardless of the specific nature of the impact sought after in the individual research project conducted with a view to creating both academic and societal benefit, it seems that the organizational milieu for facilitating a boundary-spanning role for researchers is an undervalued dimension of double-impact research. The call based on this paper and the achieved insights on 'missing links' is therefore to embark on a journey on how to 1) create better conditions for supporting Business PhDs (from all stakeholders) and 2) develop appropriate 'metrics' for impact evaluation which take into consideration not only impact understood as "outcome of research project", but also the impact research process. Improved knowledge not only about the research process itself, but also the way in which an enlarged group of stakeholders influence the process towards impact (positively or negatively). Paying attention to processual and not least systemic component of impact creation seems timely in order to work to optimize the ability of researchers to create academic and societal value.

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APPENDIX 1: Potential PhD School initiatives directed at improving boundary-spanning conditions

Before project start	During project	Termination and post-completion
Internal and external Business PhD branding and marketing	Business PhD fellow onboarding – with a special focus on IT	Focus on Business PhD employability – in business or academia
Attracting new projects (ideas, supervisors, candidates and companies) to get more funding	Corporate partner education on PhD	Corporate host exit interviews
Assistance in preparing applications with a view to designing research with co-creative potential	Business -PhD networking and knowledge sharing	Keeping business contacts warm/ensure ‘return customers’
Supervisor knowledge sharing on the ‘good’ Business PhD project	PhD course(s) on bridging the academia-practitioner gap	Supervisor exit interviews: Secure that valuable experiences are not lost – and ensure future commitment to Business PhD supervision and project initiation
Supervisor workshops on Business PhD supervision	Guidelines on ‘collaborative best practice’ both with a view	Host department de-brief

	to research process and outcomes incl. IPR-issues	
Intellectual property rights advice	(Mandatory) Business PhD mentoring	Assist in the marketing of Business PhD success stories internally and externally