Research Motivation and Overview

& Knowledge Entrepreneurship as Memetic Paradigm

0.1. MOTIVATION, AIM & OVERVIEW

In this PhD research I will attempt to (1) convince you of the usefulness and functionality of the knowledge entrepreneurship concept by (2) explaining how the concept and its phenomena have been identified (a) in the strategy and practice of universities and (b) in the reflective knowledge venture of realizing this thesis as a knowledge product. At present, there is no philosophical conceptualization of entrepreneurship, but rather lived practice and instrumental (applied) best practice collections. So far the concept of entrepreneurship is strongly connected to business, but lately political and especially social entrepreneurship have been conceptualized successfully. This research proposes an integrated meta-theory of entrepreneurship[1] and develops the notion of knowledge entrepreneurship – which is assessed to be a beneficial contribution especially to the discourse about the entrepreneurial university[2]. I hope the position developed helps to bridge the divide between pro and contra entrepreneurship in university by articulating and advocating for a position that focuses on entrepreneurship which isn't exclusively shackled to economic benefits, but instead allows for entrepreneurship aimed at knowledge benefits.

The strategy and practices of how internet based innovations – as entrepreneurial opportunities - are appropriated has proven to be a fruitful example. Specifically, as a source to research knowledge entrepreneurship in the form of e-learning and e-research practices; because it is in these fields wherein opportunities for creative destruction constantly arise.

As described in Methodology Chapter 2.1.1. the choice of following a grounded theory research based approach allowed for a natural development and amendment of the research question:

[1] Allowing to embrace economic- , social- , political- , knowledge-entrepreneurship, and whatever the telos (main objective) of the actor might be.

[2] Because in the academic world the resistance to entrepreneurial practices is significant mostly arguing that it is a business paradigm.

Initial Question:
What relationships exist between internet based innovations, entrepreneurship and higher education?

Refined Question:
1. What is knowledge entrepreneurship in a university?
1.1 What motivates individuals to be entrepreneurial?
2. Can internet based innovation appropriation serve as an example?

Final Research Questions:
1. What enables strategic and practical knowledge entrepreneurship in universities?
1.1. What are the components of the mindset of a knowledge entrepreneurial entity?
1.2 What are the components of the *gestell* (infrastructure) for knowledge entrepreneurship?
2. How do universities apply knowledge entrepreneurship to integrate internet based innovations in their practices?

The methodological combination of empirical and theoretic investigation, namely case study and phenomenological action research, was complemented by an exploration of the existing body of knowledge within the relevant areas. This calculus of investigation is assessed to have led to more balanced propositions.

The research's contribution is first and foremost in the developed philosophical construction of the entrepreneurial paradigm. Entrepreneurship is developed as a fundamental human practice based on a mindset, and further facilitated through an infrastructure (for which the Heideggerian term *gestell* is used – see chapter 4 section 4.2.2. and 4.2.5.). Herein, the special case of knowledge is one of multiplicity; its motivating telos is stressed in the context of universities as social institutions evidencing a unique knowledge mandate.

As with all paramount concepts, entrepreneurship is by no means a scientific discovery, but rather a constructed normative social paradigm meant to contribute to the understanding of evolutionary development and human striving. Put differently, entrepreneurship is framed as a life philosophy in the 21st century zeitgeist of the knowledge society (see section 1.2. for further elaboration of this position).

The following paragraphs are meant to give a short overview of the work presented. Chapter 1 begins by introducing the complexity and Deleuzian basis of the research. This section is essential to understanding the terminology and perspective on reality presented by the research. It is followed by an introduction and contextualisation of the research's three thematic

components: knowledge entrepreneurship, higher education studies, and internet based innovation appropriation.

It begins with knowledge entrepreneurship and the historic and theoretic trajectory of the developments that lead to the necessity of the concept of knowledge entrepreneurship as a paradigm in the knowledge society. Next, the concrete understanding and definitions of the term as well as an originating theory are put forward. Thereby, the components 'entrepreneurship' and 'knowledge' are formally defined, after which the working definition is put forward: ***Knowledge entrepreneurship describes the ability to recognize or create an opportunity and take action aimed at realizing the innovative knowledge practice or product.*** Second, the publications that use the knowledge entrepreneurship term are reviewed, and finally, I will present the originating model of knowledge entrepreneurship, which is an amended version of the findings of McDonald's (2002) PhD research on knowledge entrepreneurship in hospitals.

Once the core theme of the research has been defined, the context of the discourse of the university in the network society is addressed. After introducing the sociological frame of the network society developed by Castells (1996; , 2000) and reviewing the discourse on the entrepreneurial university, the position of the researcher is presented as an argument for the university as a public institution. Once the normative position has been made explicit, the theme of knowledge entrepreneurship in the university will first be developed by reviewing the literature about knowledge management in universities, and then by elaborating on the university as a *knowledge entrepreneur* as proposed by Fuller (2006). Finally, the stage for dealing with the practice and strategy of internet based innovation appropriation will be set by elaborating on the organisational aspects of the university as a vessel of knowledge transmission.

The theoretic background of the last thematic aspect of the research - innovation appropriation, which is used as an example of a field of practice for knowledge entrepreneurship, is presented in the last section of this chapter. General insights about innovation and innovation in universities are complemented with elaborations regarding the conditions and particularities of innovation in cyberspace and the internet.

Chapter 2 presents the research design and its methodology. At first, the overall approach and the development of the research questions are recounted. Then, the two research methods applied (case study and phenomenological action research) are depicted in theory as well as in concrete application. The chapter closes with the description of how the findings were abstracted and developed into theoretic propositions.

Chapter 3 contains the four case studies that make up the heart of the empirical field work. The case studies are meant to illustrate the setting, the conditions regarding practices and strategy, as well as the position regarding academic results produced by the institution. It is important to

point out that it is not the objective at this stage to work out each institution's knowledge entrepreneurship, but rather to produce an actor validated description and analysis of the current situation in general. The cases are then subsequently used in chapter 4 to theorise and empirically ground the concept of knowledge entrepreneurship in universities.

Chapter 4 has two parts. First, the case studies are formally contrasted, especially with regards to their strategy and practice in internet based innovation appropriation. Second, the concept of knowledge entrepreneurship is developed theoretically.

In the first part, an illustrated objective is contrasting the highly diverse sample in order to explore the whole spectrum of university institutions. This general contrasting is then complemented by an analysis and classification/typologization of how the different institutions deal with the challenges of exploiting internet based innovations for their educational and research needs.

In the second part, the original theoretic contribution of the research is developed. Based on the understanding of the essential conditions at universities (gained through the case studies), as well as on the phenomenological action research conducted by the researcher as knowledge entrepreneur, an innovative conceptualisation of knowledge entrepreneurship is presented and applied to the case studies. According to the proposition, the concept is divided into an inner and an outer environment. Following Simon the research is "*drawing the line between outer and inner environment, not as the firm's boundary, but at the skin of the entrepreneur, so that the factory is part of the external technology; the brain, perhaps assisted by computers, is the internal*" (Simon, 1996, p. 25). In this research the terminology of an internal mindset and an external gestell (infrastructure) has been chosen.

The *entrepreneurial mindset* (Faltin, 2007) as constitutive for identity and *persona* (Erikson, 1974) is developed beginning with existentialist illumination (Enlightenment/*Aufklaerung*); resulting in an actor that takes decisions based on his free will (or *internal locus of control*). The paper subsequently develops three more strange attractors around philosophical programs – axiology/teleology, pragmatism, and ethics/sustainability - deemed essential for entrepreneurship. The presentation first follows the format of elaborating on the nature of the mindset components and then applying it to the universities investigated in the case studies.

The external component of the knowledge entrepreneurship concept exists out of the following components: the entity's governance structure, the spatial arrangement, the availability of informality and transparency, and lastly, the availability of resources.

The last part of the chapter reviews the congruence of the findings with the originating theory which was an amended version of the theory developed by McDonald (2002). It is found that the

components represent important aspects of knowledge entrepreneurship, and that the theory is correct, but that it is suggested to be amplified by an organisational context and through efforts to create an entrepreneurial mindset and gestell. In fact, the components of the originating theory are only one aspect of practices that need to be institutionalized in order to provide for an efficient *gestell*.

The last chapter, chapter 5, is divided into four parts. The first presents a set of cases of "best of breed" knowledge entrepreneurship, allowing for a better understanding of what the target practices can look like. The second deals with conclusions regarding the practical implications of the paradigm shift from Clark's suggestion of applying (essentially economic) entrepreneurship to universities-- transitioning into a knowledge entrepreneurship paradigm for universities. Next, (3) an assessment of the state of digitization in universities is compared to civil society organisations and financial markets. The chapter closes with (4) the formal answering of the research questions by summarizing and referencing the findings presented in chapter 3.

0.2. KNOWLEDGE ENTREPRENEURSHIP AS A MEMETIC PARADIGM

Different from the natural laws of the physical world, the perceived life-world (Habermas) of the individual is constructed through language (as explored by Wittgenstein). It is hence in the hands of knowledge entrepreneurs to creatively deconstruct and recombine existing ideas about social reality, or meme. A meme, as originally defined by Richard Dawkins, is "*a unit of cultural transmission, or a unit of imitation*[3]" (Dawkins, 1976). He is preliminarily interested in cultural expressions rather than abstract concepts, but the field of memetics has been expanded to include ideas and other meta-physical concepts.

Allow me to recount Sloterdijk to elaborate on the intention of the approach herein deployed. He says about the role of philosophy[4]: "*Philosophy is stylizing the human being with the practice of terminological gene-technology ('begrifflicher gentechnologie'), thereby developing new taxonomies of human existence*" (Sloterdijk, 1999). He further explains that philosophy creates meta-physical conceptions of human beings and their conditions, which serve as archetypical development paradigms when perceived and internalized. One example given by Sloterdijk, is Freud's creation (or meta-physically engineering) of the Oedipus complex. The complex surely existed in one or another form before he wrote about it, but he defined it and made it a condition

[3] He elaborates: "*Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imitation*" (Dawkins, 1976).

[4] This beautifully corresponds to this researcher's perspective outlined under "*Mechanics of existence and constructed reality*" (see chapter 2.1.).

that affects us all. The proposed philosophical model of an entrepreneurial mindset is defined herein in similar terms.

Put differently, meta-physical concepts can be constructed in the same way physical engineering contributes to the potential to dominate the world; Simon's (1969) groundbreaking book "*The Sciences of the Artificial*" is a fruitful paradigm for the social sciences as well. The proposed philosophic model of entrepreneurship and knowledge entrepreneurship in particular, is a meta-physical innovation of this kind. Sloterdijk has held a very illuminating speech on this issue highlighting how the search for truth was traditionally an aloft divine/teleological quest which was then complemented by rational meta-physical ideals and values, and how in modernity there is a perspective shift from transcending and reaching higher understanding to an exclusivity of truth claims based on down-to-earth positivistic empiricism. Sloterdijk further elaborates upon a recently changing dominance or zeitgeist, which is focused on the development that is in front of us. In my translation the argument reads: "*Today we are visually impaired, my vision is narrow, and in fact, every human lives in his tunnel. … We are in the world, surrounded by things and entities*." He goes on to describe how the objectification of the world has caused what Heidegger called the "ontological oblivion of Being" (*Seinsvergessenheit*). "*After Hegel the spirit descended to empirical hell. Once it reached the factual ground, it will not resurrect on the third day, but forge a plan for the breakthrough afore/ahead. … Modern, he is not who wants to bring the world under him or behind him, but in front of himself. One brings the world in front of oneself to start an undertaking. In front of us are the fields of activity, the objectives, and the un-realized opportunities. In this direction embark the expedition squads of our times: the visionaries, the technologists, the researchers. The 'down to earth' is for the people who tackle the world, the politicians, etc. … All practice has the movement of dragging the Being down.*" Then he asks: "*Is this what we wanted?* "

My answer is a clear no. The lofty and complex aspects of human spirit, or what has been traditionally called soul, are part of the human being. If we neglect this, we are neglecting an aspect that is crucial to understanding the human condition[5]. The meta-physical Being contains the rather important aspect of human creative energy, striving, and cognitive development, for which the traditional (philosophical) methods of investigation have recently been discredited by the dominance of the natural sciences. It is the neuroscientists and the psychiatrists who have authority and are allowed to explore human thinking, but Being is much more than thinking, just as human feeling is more than any sensor/machine can pickup. In the cognitive tunnel which constrains our vision, we have been pointing our flashlight onto the ground in front of us for so long that we have almost forgotten that it was by being curious about the stars above that we began our fruitful quest. It is my understanding that the challenge of scientific inquiry for the 21st

[5] The modern exclusive positivist focus was very productive to develop the present understanding of the natural sciences, but at the same time it lessened believe and creativity which are responsible for important aspects of human existence.

century is to transcend the artificial disciplinary borders developed to allow for the viable piecemeal construction of human reality, and to use the insights gained in these efforts to tackle the most challenging question: how to create and maintain the best of all possible worlds/realities (not Leibniz's but the individuals aspired reality), because with all the instrumental/technological knowledge we have accumulated by researching what it means to be in the world, we have forgotten to where we want to take this world.

Like all philosophical work, the codified knowledge presented in this document is based on observation, investigation, conscious experience, analysis and rational reflection. To construct and de-construct the idea (or meme) of knowledge entrepreneurship, to understand the motivation and most essential components of the entrepreneurial mindset became the *leitmotiv* and passion of my professional and personal strive during the last two years.

It is part of my entrepreneurial nature not only to identify and analyse a knowledge opportunity, but to pursue it with the objective to reach understanding in order to suggest a solution. Therefore, I have provided not only a description and analysis of the current practices at the investigated universities, but I have had the urge to codify my understanding and to propose a model for an entrepreneurial mindset based on all of the observations, interviews, reading, and personal reflections made. Like all life philosophy, there can be no theoretic right or wrong, only the perceived usefulness for the individual reader can be judged as relevant and helpful for constructing pragmatic truth.

The result is the proposition of a philosophical paradigm[6] of entrepreneurship that is more than just a professional practice to reach professional goals; entrepreneurship is herein set at the centre of a life philosophy, a solar attractor bringing together Aufklaerung (Enlightenment), the search for meaning, practical implementation and the need for righteousness.

Is the concept thus developed the final answer to the questions investigated? It can not be. Jaspers (1997) defined philosophy as "*being searching on the way*". He elaborates that *philosophos* is the antithesis of *sophos*. The latter indicates a knowing person, someone who possesses knowledge; the philosopher in contrast loves knowledge and the search for Truth. Like love, the truth is by its very nature impossible to possess.

But how is a life philosophy of an entrepreneurial mindset connected with entrepreneurial universities? This question is answered most illustratively when contrasting this research with a work like the CHEPS report on "*Models of Technology and Change In Higher Education: An international comparative survey on the current and future use of ICT in Higher Education*" (Collis & Wende, 2002). From the outset, the report deals with quite a similar question, but when one looks at the conceptualization and especially the description of the results, the

[6] In the Kuhnian sense (Kuhn, 1962).

different approaches become apparent. The CHEPS report investigates what the stakeholders do, as well as what the universities are doing, as two sets of objective practices. In comparison, in the research presented here, an original fractal perspective on knowledge entrepreneurship is advanced. The complexity and meta-physical approach thus pursued allows for the integrated, seamless description of an individual's as well as an organizational mindset deploying the concepts of wholeness (the universality of knowledge): It does this through fractality and Deleuzian emergence (continuous "becoming"), where by the holistic totality of reality and the temporal uniqueness of evolution are both given due diligence.

So why, one might ask, should one explore a question if the propositions given it cannot be verified? On the one hand, there is the concluding argument Wittgenstein (Hoerster, 2001) proposes: One can only speak about facts and what one cannot speak of, one must remain silent about. I would claim that this is the most conservative and therefore anti-entrepreneurial position possible. It is exactly the entrepreneur's function to not accept facts and to reject silence, acting instead to envision newly possible aspects of reality and then executing upon them. In fact, it is Wittgenstein himself who at another more rewarding moment writes: "*The philosopher is to treat a question like a disease"* (ibid). With this analogy a much more productive and creative practice is possible. And it yields another illustration of the two kinds of results presented in this research. The conditions for knowledge entrepreneurship are investigated, just like a doctor would examine a patient. Given that knowledge entrepreneurship has physical and meta-physical causes and expressions, the results of the examination stem from observations about good practices and from phenomenological reflections conducted as action research experience.

In consequence, important questions are posed and treated but not answered[7]. It is exactly for these kinds of philosophies that Socrates had to drink the hemlock. This kind of self-exploring, self-defining processes has long troubled authority, having been deemed as corruptive to the youth by distracting them from their daily business. The question for the youth remains, is their instrumental contribution to society, to operate in mindlessly prosaic constellations, or instead is it a celebration of free will and a search for telos and logos? (Frankl, 1963)

Hence the research is necessarily, as Gadamer (1992) demands, pluralistic; it combines the insights of the observation, investigation, analysis, and reflection of the factual with that of the meta-physical. This process or mental setting, results in *movements of consideration* (*Bewegungen des Bedenkens*) in the Heideggerian sense (Welsch, 1998). The work presented

[7] It is acknowledge that the results presented do not stand as scientific facts but rather as arguments and models because of the methodology deployed. However, I agree with trans-disciplinary veteran cybernetician Heylighten (1992), who agrees with Maslow "*that it is preferable to carry out methodologically primitive research about fundamental problems, such as the conditions of human well-being, rather than restrict oneself to technically sophisticated observations about minor issues*."

herein, can be understood as a contribution that is an instance of a process rather than a final product, because "*each philosophy defines itself through its realization*" (Jaspers, 1997), and thus the relevance of this work has and will continue to develop in action research and in the discourse held with the universities and knowledge entrepreneurs.

0.3. A NORMATIVE STUDY?

As Watzlawick, (2002) author of "*The Situation Is Hopeless, but Not Serious (The Pursuit of Unhappiness)"* pointed out absolutely correctly, we are drowning in a wave of 'how to' guides, allowing the benevolent and struggling seeker, easy to follow, but equally shallow solutions and recipes to such profound questions such as: how to become happy, how to become rich, a leader, a perfect partner etc. Even though well intended, the 'solutions' are most of the time simply dogmatic oversimplifications. Subsequently, due to the massive publication of this kind of normative prose, critical and scientific normative investigations have lost acceptance in the community, resulting in rather descriptive and analytic but less solution oriented publications. This research attempts a normative proposition of entrepreneurship as a positive attractor, or paradigm, and one that does so by engaging the seeker in a (possibly collective) midwife process meant to rouse the internal locus of control and to cause the examination of one's values, practices and interrelations. It is thus less of a manual, and more of a normative scaffolding allowing for institutional (or personal) development with a supportive memetic structure, ultimately facilitating learning in the Vygotzkian sense (Boudourides, 2003; Watson, Audio Lectures).

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