

Research Statement

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Doing (applied) scientific research has always aroused my interest. Some of my scholarly work dates back to jobs as an entrepreneurship researcher early on in my professional career (i.a., at EIM Business and Policy Research and TNO). Only later did I start a PhD trajectory in Economics at Utrecht University, which I successfully completed in March 2018. Already a few months before my PhD defense, in December 2017, I was very pleased to join the Jheronimus Academy of Data Science (JADS) as an Assistant Professor of Entrepreneurship. I received a permanent contract (got tenured) in September 2022.

With my doctoral dissertation, I made a substantial contribution to the entrepreneurship literature by showing that the formal and informal institutional context directs individuals towards different types of entrepreneurial activity in society, which ultimately leads to different economic growth patterns. My PhD has further shaped my view on entrepreneurship in that it goes beyond setting up a new business for own risk and reward. In fact, entrepreneurial activity is omnipresent; employees of established organizations might engage in intrapreneurship.

Given that I now belong to the (data) entrepreneurship unit of a data science institute, my research increasingly combines the two disciplines. This can be interpreted in the following two ways: (1) Investigating how and why data science enables entrepreneurs in becoming (more) successful, and (2) applying contemporary data science techniques to better address conventional entrepreneurship research questions. In other words, I am very much intrigued by how entrepreneurs and entrepreneurship scholars can leverage data science for new value and new knowledge creation, respectively.

A good example of the former is a recent study about the key factors enabling and constraining the diffusion of data science among SMEs (still work in progress). Although, by now, many firms claim to have incorporated data science in their processes, products and/or services – or they express the ambition to do so soon – the actual degree of adoption and usage varies considerably. Why do some firms reach higher levels of so-called data maturity than others?

A good example of the latter is a conceptual paper, published in *Small Business Economics* in 2020, in which me and my co-authors provide a detailed introduction to social signal processing (SSP), and demonstrate how it can advance research on decision making in entrepreneurial contexts. We contend that SSP techniques are more efficient and more accurate than conventional research methods, and may reveal important factors that so far have been omitted in explaining decisions that are vital for firm survival and growth. This is in line with recent calls to enhance rigor in quantitative (theory-testing) entrepreneurship research (e.g., Anderson et al., 2019; Maula & Stam, 2020). For example, by applying modern methods and techniques that yield objective rather than subjective measurements. These methods and techniques increasingly involve artificial intelligence (AI) and/or big data (e.g., Lévesque et al., 2020; Schwab & Zhang, 2019).

As a proof of concept, I started collecting videos of investor pitches by student entrepreneurs (Dragons' Den style). A unique feature is the simultaneous recording of the responses by the investors present. We know that investment decisions are partly based on what is being said (e.g., about the team and product/service) and done (e.g., style of delivery) during a pitch. However, we still lack a complete understanding of how and when investors become as passionate about the business idea as the entrepreneurs themselves. SSP techniques automatically detect and analyze verbal and nonverbal behavioral cues stemming from, for example, gestures, posture, and facial and vocal expressions. Output of this research line will fit in seamlessly with ongoing debates in journals like AMJ, ETP, and JBV.

In general, I see scientific research as a means to accumulate new knowledge, and so, a single empirical study can only alter the balance of the available evidence, not establish that we know something with certainty. However, notwithstanding its importance for knowledge accumulation and despite a few recent, praiseworthy initiatives, the number of replication studies in the field of entrepreneurship remains far too limited. I therefore intend to contribute to an ongoing, large replication endeavor concerning impactful entrepreneurship studies. Another major shortcoming in research is the persistent existence of p-hacking. Therefore, I am also a strong advocate of preregistration of, at least, hypotheses (if any), data, and methods. Our interest should go out to finding causal relationships instead of correlations mostly, for example by setting up randomized controlled trials (RCTs) or other types of field experiments.

In addition to the aforementioned substantive and methodological research goals, I have the personal ambition to become a well-known expert and respected scholar in the field of entrepreneurship research (or management research more broadly). On my way, I aim to bridge the gap between the university on the one hand, and the government, industry, and the general public on the other hand (i.e., quadruple helix), for example by (1) getting inspired by questions from "the field", and (2) sharing implications and recommendations for business and government policy more clearly. These are also elements of what has been coined *engaged scholarship* (e.g., Van de Ven, 2007).

References

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