The process of doctoral study is inherently complex and has multiple dimensions. Yet over the past few decades, the demand for postgraduate expertise has been increased dramatically. Since being part of this process, I am very much interested in learning and understanding the emerging trends and the thought-processes behind different policies in this area. Editorial “The impact of the doctorate”, skillfully highlights key challenges and the philosophy behind constituted policies under doctoral studies in different parts of the world.

The article gives a broader view on the impact, processes and the contributions of the doctorate in the diverse and multi-cultural settings. Doctoral research contributes significantly both to national and international landscape in terms of knowledge generation, innovation and growth. However, the whole process is still empirically lacking systematic approach that can lead to quantify the impact and correlate it with tangible outcomes. This article primarily discusses the limitations in different policies adopted worldwide to measure the impact of doctorate degree? While highlighting the issues, the contributors also define doctorate as a process and a product, and that attends to the diversity of individuals, organizations and institutions participating in various phases of the doctorate. Further, the discussion comprises on following four components:

- Why is the question of impact important in this particular historical movement?
- Some challenges in theorizing doctoral impact in the twenty-first century.
- (Re)theorizing the impact of the doctorate.
- Future directions.

Why is the question of impact important in this particular historical movement?

Over the last decades, many organizations and governing bodies are carefully monitoring the publically funded research projects; what is the gain? How beneficial are these projects for the society etc.? It is a global trend and can be seen in different countries as well as geopolitical organizations like EU and supranational agencies like Organization for Economic Cooperation and Development (OECD). The idea behind this whole process is to bring forward the benefits of research. One discussed example is when Research Council UK argues that the purpose of research impact assessment is to accelerate the two-way flow of people and ideas between the research environment and wider economy to contribute to the national prosperity.
Later it is also highlighted that such idealistic goals put pressure on governments and funding agencies to maximize the direct output from the research projects. Multiple examples have been discussed where different monitoring agencies argue that more effects are required to design realistic goals to quantify the research impact. Research Councils UK, has defined impact as recognizing the diverse ways in which research can contribute to the UK economy, including social, environmental, cultural, health and policy benefits as well as more obvious economic benefits. It is also important to develop the metrics that measure the changes and benefits flowing from research, such as reduction in poverty or improvement in health care etc.

Some challenges in theorizing doctoral impact in the twenty-first century.

Despite lacking measuring and monitoring policies, public funded research and doctoral education are on high priority for national and multinational organizations. The quoted figures show many fold increase in past few years. In China, the number of doctoral students increased from 18 to 188,000 in last two decades. A similar trend can be seen in EU, the US and many other countries both for graduate and postgraduate studies. The prediction is the trend will continue, as nations are in real need to build sustainable and competitive knowledge economies. In order to attract more students for the doctoral studies, different countries have started diverse doctoral programs, such as coursework, professional and basic research based doctorate programs. On the other hand, international organizations are working on harmonizing doctoral education. Bologna process is one such example from EU.

The increase in the number of doctoral graduates and diversity in programs also impacted on the options of employments. It is getting increasingly popular to join non-academic positions. 50% of EU and 70% of US doctoral graduates work outside academia. This shows the growing diversity in the process of doctoral studies that brings more options for the upcoming doctoral candidates but at the same time makes it more challenging for the governing bodies to quantify the research impact.

(Re)theorizing the impact of the doctorate.

The rapid advancements and the competition amongst nation-states, requires expertise that leads to innovations and growth. This increases the importance of the doctoral studies and different stakeholders (government institutions, industries and multinational organizations) bring more resources to pursue research and development process. In 2005, Bologna Seminar highlights some key principles for the doctoral programs for EU. The key features include diversity and additional training to meet the employment wider than the academia. The discussions from Higher Education Academy (HEA) of UK emphasize that the impact of doctoral education should not only focus on economics but also extend to other domains. Another reason in this support comes from the educational institutions. It is very important for the universities to illustrate their progress in terms of enrolled students, active research projects, innovations and collaborations with industry. Public perception of the quality of university’s doctoral program is one of the key factors to secure future funding.
While different agencies highly supporting the idea of extra skills for the doctoral studies there are critics argues that the overall process of doctoral education will degrade by diverting the focus from research to acquire additional skills.

Future Directions

In this section, different studies have been presented with emphasize not to overlay narrow interpretation of the impact. The presented studies include varies aspects from different stakeholders of the ecosystem, ranging from students and universities to industrial and supranational organizations. The aim is not to define or quantify the impact but to give a broader perspective on what might be the key objects to be considered when defining the impact of the doctorate process.

My reflection about this article

1. It is a well-structured and thorough article to highlight the concerns and available approaches to develop a better understanding of the doctoral study process.

2. Before discussing the impact, I think it would be great if the contributors also highlight what doctorate process deliver in its current state? Together with the high-level goals such as critical thought process, innovation and growth, the process also trained a doctoral candidate to manage an open-ended problem, present the findings and analyze the problem to develop a better understanding. These are all practical expertise, very much required both in academia and industry.

3. The tight coupling of practical skills with the doctoral education might result in more distractions to achieve high-level goals (critical thought process and innovation). My fear as a supervisor is, with all these upcoming reforms, in the end, doctoral studies will become quite mechanical which fundamentally contradicts the philosophy of the doctorate process.