

Opportunities for personal development through professional doctoral training

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Abstract

The current opportunities for personal development through professional doctoral training are too many to mention but are opportunities that need to be taken or sought rather than be expected as given. A professional doctoral training programme is simply one that provides the student with an opportunity to demonstrate their novel idea in an experiment in accordance with ethical research methods and practices.

In this paper we will look at some of these opportunities that assist in the personal development of professional doctorate candidates and what benefits and/or challenges the students gain or face in trying to acquire them.

Some of these opportunities include but are not limited to: teaching, learning, workshops, seminars, conferences, entrepreneurial ventures, patenting intellectual property, representing the university at events, networking with other researchers, networking with practitioners in industry, practical based research, research training, how to get funding, publishing papers, travel grants, professional recognition and a host of other development areas.

This paper shall examine each area briefly based on the primary authors' experience as a recent graduate of a professional doctorate and then try to identify the areas that were most beneficial to his programme and where he felt he could have benefited more if the steps to take the opportunity were in place.

Key words: Professional Doctorate, Personal Development, Opportunities, Research

Introduction

There are a variety of Doctoral level programmes within the United Kingdom's Institutions of higher learning. These include the PhD, MRes, MPhil and Professional Doctorate to name a few. There are however not many Doctoral programmes with a bias towards providing solutions to contemporary work based problems outside academia and this is why the Professional Doctorate has come to gain popularity in recent times.

Aim of the Programme

The principal aim of the professional doctorate programme in Information Security is to make a significant contribution to the advanced professional and academic development of information security, digital forensics and compliance (University of East London; 2009). Whilst the aim here seems academic related it is the personal development which takes place throughout the duration of the programme that makes it unique and gives it that professional feel; hence the name Professional Doctorate.

The objectives of the Programme

Like the traditional PhD the Professional Doctorate is structured so that the student undergoes an independent level of research; however in addition it strongly encourages students to engage with professionals in the field. The three key areas of the programme include (University of East London; 2009)

- a) Engage at an advanced level with range of issues of concern to professionals in information security field
- b) Develop appropriate research skills for researching professional concerns
- c) Carry out independent research which will represent a contribution to professional knowledge or practice

Programme Design and opportunities available for personal development

The Professional Doctorate programme is generically designed to provide knowledge, thinking skills, Subject based practicals, skills for life and work skills amongst other things. Not only does the programme allow its students to undertake core modules but it gives them the opportunity to take on other tasks not necessarily included in the academic programme these include but are not limited to

Teaching – Students are given hours to teach related modules in tutorials. These were beneficial to me in that they enhanced my knowledge through further reading and gave me confidence to present and engage with an audience

Learning – Through classes other than those I was enrolled for I was able to acquire the needed knowledge in areas where I wasn't conversant. The structured debate style classes meant that an open forum of engagement where each researcher brought their prepared thoughts for challenge was encouraged

Workshops – Interacting with Special Interest Groups (SIG) e.g. Artificial Intelligence and Forensics sponsored by QinetiQ and made up of practitioners from leading consulting firms and government agencies meant that I was opportuned to engage in cutting edge debates, whose aim was to solve emerging risks to the United Kingdoms security baseline

Seminars - All academic schools held seminars at regular intervals where researchers could showcase their research findings and methods used to obtain them. The debates that occurred were an opportunity for me to test my ideas and learn from suggestions made from experts in the field who usually regulated the events

Conferences – International and national conferences were an essential part of the doctoral programme and is a way of validating ones research work. Validation is essential as external examiners want to know that a thesis has been exposed to external examination by way of being published. Also conferences are a fantastic forum for meeting fellow researchers in ones field, exploring other countries, taking a break from research and learning the art of effective presentation

Entrepreneurial ventures - The bottom line with businesses is money. As such all aspiring captains of industry must have the business acumen to succeed in what ever industry they practice. This success cannot come without exposure and practical

experience and I was opportuned to partake in several entrepreneurial events, were I and other students represented the University. There were also other occasions were I represented myself as a business. The exposure has given me a life time skill of what makes a business tick, how to start a business up, how to sustain a business and exit strategies. I personally recommend the training to all student researchers as it gives a more robust finishing to a research thesis

Intellectual Property (Patents) – The opportunity to receive funding only comes with a novel idea that is sustainable and beneficial to society. In other words has commercial value. Once a Professional Doctorate has been registered, the student needs to talk to his supervisory team to understand the possibility of patenting the idea. Once this is done then the idea should be sat on and kept very quite until the funds arrive that start the process of securing it as an Intellectual property. It is usually a good idea to give the patent rights to the University who have the funds and resources to sustain the patent over several years and fight off any impending acts of theft. Also the good thing about this is that a negotiation is always possible with the university if the prototype proves successful and the patent is wanted by a large corporation like Glaxo or Cisco

Representing the University at events – The exposure from having represented my university at academic and business events has given me knowledge of how to interact at public events. Whilst this might seem unimportant, think of it as training for the all important Job were one has to present to a panel of judges or a pitch to a potential investor. I know for a fact and have seen person freeze at such events because they have not had the necessary exposure

Networking with other researchers – This is one of the most important areas of undertaking a Professional Doctorate. Without interacting with other researchers one cannot sustain the necessary network of friends who will appreciate ones time and effort. I say this because the Doctoral network is different from most other networks in that those who form it have been through the rigour and stress that goes with attaining a Doctorate and therefore know and appreciate the task at hand. So why is the appreciation of the task at hand important? Well one thing I found out whilst undertaking my Doctorate was that confidence and trust is crucial in knowledge transfer programmes like the Professional Doctorate. This is why doctorates are about methods, evidence and procedures; it is also why our work is trusted by the larger society.

Networking with practitioners in industry – Most networking circles in industry are corporately tagged as the network event of the year. However identifying the networks relevant to ones research area is important for each student. Events such as the g2i event, QuinetiQ SIG and Flux 500, E-factor, Artificial Intelligence SIG and Forensics SIG, are just amongst some of the events were the author networked with practitioners

Practice based programme – Application development from scratch to finish using recognised project models that tie in with research practices is another area were student can benefit. Employers want to know what a graduate has to offer and not what they've read and as such Professional Doctorates practice based approach is a unique selling point

Research Training – The very compulsory research modules which are taught as research skills training are about learning the methods of research and how to carry out ethical research. These have stood me in good stead and are highly recommended by anyone undertaking a research degree; I say this because some students might be exempt from the training due to prior learning. However it is in the interest of every student to undertake the skills training as Doctoral programmes are just what they say they are, Doctoral programmes.

Funding – Having successfully secured an Emerald Fund, I had gone through the process of how to successfully apply for a fund and how to make a research bid. These are two key learning curves that are relevant in the business world where tendering and bidding are the order of the day

I successfully secured the Haberdashers fund for young businesses which enabled me pay for the proof of concept “practical demonstration” of my thesis idea

PD Supervisory Team – It is so important to make regular contact with your Director of studies and PD supervisor. They shouldn't just be consultants whose 30 minutes in their office talks about what you've done or the next step. A Doctoral degree will always raise obstacles along the way and by having a good rapport with the PD Advisory team means that they can avert any forthcoming obstacles that may arise using their experience. It is also worthy to have knowledge of what areas the PD advisory team are specialists in as just taking on a supervisor because they can supervise a PD has its own challenges in the long run. The PD Advisory team are there to guide and highlight programmes or events that will be of benefit to the personal development and ultimately the attainment of the Doctorate. They do this based on the understanding of your personal situation of which they must be aware so as to represent your best interest based on your personal circumstance.

Graduate School – It is important to develop a relationship with the graduate school where all records of research activity are maintained and the progression decisions are made. By so doing a researcher can query and get advice on issues that affect their programme.

Ethics committee – As with all good research the methods and procedures used a researchers have to be vetted by the graduate schools ethics committee in order to protect the school and the researcher. It is important to get the application form in on time as the procedure can take time considering that all the university's researchers have to go through this process

Publishing papers – This is key to a successful VIVA as the external examiner will be looking for the successful defence of key areas in a thesis within an academic forum to show that the Thesis has been scrutinised by fellow researchers. It is also good for the personal development of a Doctoral candidate for them to present their findings at a conference of repute as this allows for scrutiny of their work

Travel grants – In order to publish papers or parts of ones thesis it is necessary to travel out to other countries to show that the work can stand up to international scrutiny and not just the scrutiny of researchers based in the students country of residence. As such expenses are incurred which can be expensive and to reduce the

burden a researcher should familiarise themselves with the necessary awarding bodies of which there are many that fund the travel costs associated with publishing a paper abroad

Knowledge Dock – Every University has a commercial wing which equivalents a financial sweet shop where funds and grants can be obtained. These centres or companies should be identified and their website monitored as knowing when a call for applications on a grant are made is the only sure way of being able to get the application in on time

Programme limitations / implications

Funding and academic recognition are I think the biggest limitations for those taking Professional Doctorates and the simple reason is that because the Programme is still relatively new having been first rolled out in the United Kingdom at the University of Bristol in 1992. They had adopted the programme from their American counterparts, and till today not all Universities offer the programme so there is still a lack of clarity as to exactly how the programme works (Times Higher Education 2008). From what I have seen whilst flicking through University websites and prospectuses there is also a non-existent framework for Professional Doctorates within the United Kingdom as such no exact standards exist for the programme unlike the traditional PhD

The implications of these shortcomings are that the programme is not given the same robust academic welcome as the PhD in some work or academic quarters and as such students on the programme are not allowed in most cases to apply for an ESRC grant or to other funding bodies.

Practical implications of the Personal Development

The key areas of personal development that the author gained from include but are not limited to the following: competence in his chosen research area, being able to manage his emotions and achieving independence in his research. By improving on one's personal development, the Professional Doctorate student would have gained through the following forms of development: Learning and assessment, motivation and social networks, human capital and economic value, ethics and self-reflection

The benefits to an organisation of having personal development as a scheme running through its organisation is that staff learn about the key contributions that can be made through the following training or awareness programs. Work-life balance, time management, stress management and health management

Originality / value of the Professional Doctorate

Patents and copy right designs are common within the Professional Doctorate world as most of the ideas are relevant to real world home and work problems. As with all new ideas and innovations companies and venture capitalists are always around to snap up the patents and make overnight millionaires or at the very least wealthy entrepreneurs of the researchers. The primary author of this paper received £15 in funds to patent his Doctoral Thesis. The patent rights of most students and staff however belong to the University where they work or study and so they should find out

the rules as they relate to their situation. Copy rights are usually the ownership of a student or staff, but again the student or staff should find out the rules on this as each university has its own rules

Personal Development through Professional Training

So we have looked at the route of the author who was at the time of writing this paper a student on the Professional Doctorate programme in Information Security.

At the level of self-improvement, personal development includes:

1. becoming the person one aspires to become
2. integrating social identity with self-identification
3. increasing awareness or defining of one's priorities, values, chosen way of life or ethics
4. strategizing and realizing dreams, aspirations, career and lifestyle priorities
5. developing professional potential and talents
6. developing individual competencies
7. learning on the job
8. improving the quality of lifestyle in such areas as health, wealth, culture, family, friends and communities
9. learning techniques or methods to expand awareness, gain control of one's life or achieve wisdom

Benefits and or challenges the student's gains or faces in trying to acquire Personal Development through Professional Training

Most of the challenges faced by the author revolved around two of the following areas

- a) Time: The time constraints on submitting work for grading, papers to conferences, application forms for grants etc was extremely pressured as sometimes the author only found out about events 24 hours before the deadline
- b) Funds: The Professional Doctorate is not the Traditional PhD and as such is not recognised by a few of the Traditional funding bodies, this meant difficulties in trying to secure funds for the development of the authors application prototype

The author sought to mitigate these through

- a) Collaborations: Joining other fund recipients from the same fund award to create a prototype that met both needs of their respective Doctorates
- b) Workshops: Presenting research findings at workshops and encouraging debate of key issues that were challenges to work production

The benefits gained from doing so included

- a) The development of a professional Network that meant long lasting professional relationships
- b) The creation of a prototype: That had a ready market and also recognition from the various international bodies some of which were unknown to the student as at the time he worked on his own

Other challenges faced by the author included the lack of a clear and structured framework by which he could bench mark his work. The traditional PhD's have a clear structure of progression but the Professional Doctorates because they are

dependent on not just the academic areas of their respective fields but also their respective professional practices cannot have the same structure and this is somewhat confusing for the students and dare I say some of the lecturers who are also trying to appreciate what a Professional Doctorate means

The author feels that if there was a nationally recognised framework in place then he would have been more favoured by most of the financial grants that he applied for. Having said that the author still obtained funding but this was no where near the amount he needed to perform the experiment and develop a commercial prototype

The author feels the ICPD is a good start to providing a remedy to the governance of Professional Doctorates in the country and is a good forum for discussing issues that arise

Using Professional Development Training

The word professional training in the University environment is simply the training of students to the exact specification of an organisation. It usually comes in the form of a short course e.g. the ACCA for accountants or as Degree programmes e.g. Doctor of Medicine. Recently it has come in the form of other areas in need of development such as the Professional Doctorate in Information Security, which is the first of its kind in the United Kingdom. The approach of the professional development training is one that uses industry's practices and methods within a research degree context. It successfully nurtures the needs of the professional practice by adopting its benchmarks and placing them in an academic context for wider appreciation of previous works and how to identify gaps and solve problems using the latest research techniques

Further Work

The most important aspect of the Professional Doctorate that needs urgent attention is the regulatory framework that can make it as structured as the PhD and easier to understand. This will definitely enable its students to gain access to much needed funds critical to their research

Conclusion

In this paper we looked at some of these opportunities that assist in the personal development of professional doctorate candidates and what benefits and or challenges the author gained or faced in trying to acquire them

The paper also examined each area briefly based on the primary authors experience as a recent graduate of a professional doctorate and then tried to identify the areas that were most beneficial to his programme and where he felt he could have benefited more if the steps to take the opportunity were in place

The Professional Doctorate in the author's opinion is a contemporary qualification designed to meet the challenges of today's problems. It is a combination of research methodologies and industrial work based practices through which their refinement can effectively combat today's problems

Acknowledgements

The author would at this point like to seize the opportunity of thanking his colleagues at the University of East London who whilst being helpful through the duration of his programme have also become dear friends.

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