
Practitioner in academia – what should a professor of the practice profile be for an IT University?

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Practitioner in Academia – what should the profile for a “Professor of Professional Practice” be for an IT University?

Introduction

The importance of attracting up-to-date industry related experience to universities today cannot be underestimated. This may be even truer for IT institutions due to the ongoing and fast development in this field. One paramount approach for this task, is to hire seasoned specialists from within the IT industry – namely hiring “Professors of (the) Practice” (a.k.a.: PoP), or “Professors of Professional Practice”, from hereon referred as PoPP.

This research document details the current efforts by the *Education Analysis Department* for the development a PoP profile, specifically for the newest IT university in the Russian Federation: Innopolis University (IU); located in the City of Innopolis, in the Republic of Tatarstan. Presently in its 5th year of operation, IU is aiming to grow significantly, both in terms of the number of students and teaching instructors. Hence, the importance in the process of building a strong international faculty team. The strategy is that industry professionals ought to represent up to 20% of its faculty staff.

This research effort has two aims. First, to delineate the vision of the role and profile of the PoP from the perspective of the members of the Innopolis University international selection committee, representing Russia, Western Europe & North America universities; as well as to identify any discrepancies within the expectations of the selection committee pertaining to the PoP profile. Second, to offer a set of recommendations to refine the selection & hiring process for the role of PoP for Innopolis University.

Definition of Professor of Practice

Various faculty handbooks consulted for the purpose of this research study, attribute similar characteristics to this role which can be summarized as: possessing solid working experience within the industry; being prominent/outstanding figures of the field; having had leadership roles; and being able to convey their knowledge to other people.

Other pertinent denotations for the term PoP are:

“Appointees in the PoP series are distinguished professionals, either practicing or retired. A few may have traditional academic backgrounds, but most do not.”⁷

“The typical holder of this title is an experienced leader from an upper managerial, technical or research position in his or her organization”.⁶

“This title may be used to appoint individuals who have demonstrated excellence in the practice, as well as leadership in specific fields; additionally, the appointee shall have demonstrated superior teaching ability, appropriate to undertake assigned responsibilities.” (U. Md. System).³

“Practitioners who are appointed because of skills and expertise acquired in non-academic careers; such appointments, are also being offered to individuals with academic backgrounds.”²

“This position is appropriate for exceptional practitioners in business and other professions. Candidates shall have terminal degrees in disciplines related to the school’s programs, or equivalent professional experience, and shall have achieved exceptional distinction as practitioners in such disciplines. If the candidate will have a primary assignment as an instructor, he or she also must have demonstrated evidence of effective teaching ability.”⁴

On the whole, the role can be defined as a “distinguished practitioner who through teaching shares his or her knowledge and experience in the profession”.⁵

For the purpose of this research study, a PoP is defined as a non-tenure full time appointment. The candidates shall have industry expertise and shall be able to teach courses at university level. Through this research, we shall thoroughly identify, what will be deemed appropriate for: industry expertise, educational background and ability expectations to share their real-life industry knowledge.

Data Gathering Parameters

The data obtained as a result of this research study, has been compiled from 12 semi-structured interviews given to various members of the IU Selection Committee involved in the selection of the Professors of Practice, including: the Director, the Rector, the Dean, members of the Advisory Board, as well as faculty members. The members of the selection committee are university representatives from Russia, Western Europe & North America (refer to *Acknowledgments* for the full list of interviewees). These interviews were conducted in person or via Skype. The duration of each interview ranged from 25 to 40 minutes.

All interview questions are focused towards an IU appointment (inspired by *Geoff Smart, Randy Street, 2008*⁸):

- A. What is the mission of a PoP? Why would a university want/need to hire a PoP?
- B. What positive change will they bring to the university? What are the desired results of this job?
- C. Which skills, knowledge, behavioral and cultural competencies should a PoP have?
- D. How do you want to verify if a candidate for this position possesses such skills, knowledge and competencies?
- E. In your opinion, who is a PoP role model? Why?
- F. Why did you reject the latest candidate? Or why would you reject a candidate?

Analysis

Key words analysis was applied to identify the key concepts; utterances were clustered parallel to all key concepts. Here below are the 6 questions given to all interviewees and their answers. The number of respondents supporting a given concept, is indicated in brackets. We have included some of the respondents’ quotes in Appendix 1.

- A. What is the mission of a PoP? Why would a university want/need to hire a PoP?**

Respondents indicated six possible reasons for IU to hire a PoP. The ability to demonstrate how knowledge is being applied in the real world was considered the most valuable contribution, both beneficial for students and faculty.

1. Knowledge of state of the art in the industry (N3)
2. Integration with the industry (N3)
3. To become a center of expertise (N2)
- 4. To demonstrate how knowledge is being utilized in the real world (N6)**
5. Cost efficiency (N2)
6. Teaching curriculum – offload from regular faculty, or to teach new/irregular courses. (N2)

B. What positive change will they bring to the university? What are the desired results of this job?

Interviewees coincided that the major expected impact would be in the curriculum and new research topics.

- 1. Curriculum - new courses, labs & projects (N4)**
- 2. New research topics (N3)**
- 3. Industrial context (N3)**
4. Define and provide the skills students need to be hired (N2)
5. University promotion and networking (N1)

C. Which skills, knowledge, behavioral and cultural competencies should a PoP have?

Plenty is expected from a PoP by all respondents. Most the stakeholders expect that a PoP candidate is willing and able to share their knowledge, and ready to collaborate with their faculty colleagues in the university environment which is different from that of the industry. The importance of possessing substantial 10 to 15 years of industry background, as well as in-depth knowledge within the university's field of interest. There is a clear difference of opinions to comply with these indicators, such as: PhD degrees, and/or registered patents which would indicate their prominence within the industry.

1. Diverse experience, broad interests (N1)
2. Leadership experience (N2)
3. Prominent and recognized within the industry; has patents (N3) vs. no patents does not matter (N1)
4. Hands-on engineering experience (N3)
- 5. Substantial experience within the industry (N5)**
6. PhD degree not necessary (N4) vs. necessary (N1)
7. Number of publications (N2)
- 8. In-depth knowledge within the university's field of interest (N5)**
- 9. Good communicator (N8)**
10. Aware of state-of-the-art in their discipline (N2)
11. Ability to perform research (N2)
12. Ability to generalize knowledge (N2)
13. Teaching experience (N1)
- 14. Willingness to encourage young minds; to share their knowledge (N4)**

15. Non-monetary motivation (N1)
16. Sincere (N1)
17. Open minded (N3)
- 18. Readiness to work in a new academic environment; collaborate with colleagues (N9)**
19. Ability to evaluate (N2)
20. Progression in career (N2)

D. How do you want to check if a candidate for this position possesses such skills, knowledge and competencies?

Participants concurred that all candidates should be expected to demonstrate their knowledge and skills during an interview and by teaching a class/seminar, as well as in the CV.

- 1. Interview** – ask about state-of-the-art in their field; ask to explain the main concepts of the subject; check if they are prepared for an interview in Academia; provide case or real university life situations (N8).
- 2. CV** - achievements; how many years at their last place; career progression (N7).
- 3. Teaching a seminar (N5).**
4. Teaching statement (N2).
5. Evidence of being able to share knowledge (N2).
6. References (N2).
7. Social networks (N2).
8. Informal chat (N2).

E. In your opinion, who is a PoP role model? Why?

Respondents named some PoP's role models and described their characteristics which make them likely to make a good PoP. All the role models were males.

- 1. Generated new knowledge (N4)**
2. Degree from a respectful university, PhD (N2)
3. Teaching in a reputable university (N1)
4. Works for a well-known and successful company (N2)
- 5. Experienced within the industry (N5)**
6. Good communicator (N2)
7. Leadership experience (N1)
8. Focused on students (N1)

F. Why did you reject the latest candidate? Or why would you reject a candidate?

Interviewees agreed that those who are not passionate teachers are not welcomed by Academia in the role of PoP. Poor communications skills, as well as the inability to become a part of the faculty family is a strong barrier for the candidates.

- 1. Bad at communication, cannot explain concepts well (N3)**
2. No prominence in the industry, not up to the challenge (N1)
- 3. Poor understanding of the academic environment (N3)**
4. No relevant competence in the university's field of interest (N1)

5. Inappropriate motivation, no focus on students (N4)

Conclusion.

Thus, from the perspective of Innopolis University multinational selection committee, Professor of Practice candidates, since they have professor's title, are mostly expected to have skills that characterize a university professor - excellent teaching abilities and ability to generalize knowledge, but these skills and ability they obtained in industry. Bringing their industry expertise to a university, they should have good understanding of a university environment, needs and goals and be ready to collaborate with colleagues in academia.

The next step for the university is to create and agree on profile or profiles for Professor of Practice, including where they should come from - Russia or abroad, and whether these should be long term or short term appointments. We will pilot the next selection round based on such profile, which will state the role mission, desired outcomes, required qualifications, experience, and attitudes.

This probing paper will be followed by: further research on the PoP generalized profile of the top 100 IT schools as per the QS rating; combined with a case study on developing a PoP profile or profiles for a new university; and implementing the hereby outlined improved selection procedure. Summating, this three-fold research approach will establish a thorough model of conducting successful and meaningful hiring decision for the strong development and growth of Innopolis University.

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A. What is the mission of a PoP? Why would a university want/need to hire a PoP?

“What happens is that Academia becomes an Ivory Tower, ignoring the real world. The knowledge gets out of date fast, so the university needs PoP - either still working in the industry, or retired. They have not lived in Academia for their whole life.”

“As I started doing consultancy for businesses, I became much more useful for my students.”

“Bring different sets of experience, both for students and faculty alike.”

“To prepare students once they graduate with specific skills. If they have no orientation regarding real practice, they will be useless in the industry.”

“We need to renovate our academic curriculum frequently, and we can invite people from the industry...”

B. What positive change will they bring to the university? What are the desired results of this job?

“Something will be taught at the university which has not being taught before.”

“New specializations launched.”

“Bring new research challenges. In my field, research challenges are necessary for professional success.”

“Research - is not the case. In terms of competence, they do not have the tools. But maybe they have industry contacts and interesting ideas for research topics.”

“Students once they graduate, will know where & how they can apply their knowledge. They will provide specific needed skills for students to be hired; they can strengthen the curriculum.”

“Colleagues and other professors should appreciate the real side of their discipline, which goes beyond theoretical assumptions.”

C. Which skills, knowledge, behavioral and cultural competencies should a PoP have?

«...If you look at " PROFESS" word it means “to talk about something”. A professor creates knowledge and delivers knowledge... To become a professor, you have to have a PHD and publications. Now we come a PoP - why do we need a PoP. He has the same tasks, requirements could exclude PhD. If they do not do such tasks, they should bear a different title. But - they have much industry experience they have the same level of understanding as academic professor, and this level of understanding was developed in industry ... It is a difference to have experience and stories and to be able to generate knowledge out of that. PoPP should be able to produce generalized knowledge. The key thing to look for - it this ability to generalize the knowledge (principles, concepts). Telling a story is good for a guest lecturer - how to deal with particular situation... Last week I talked to a guy - a very good guest lecturer but not a professor...»

«...real willingness to succeed to the benefit of the students ...»

«...relevant industrial experience 10 years at least. In different roles. Usually I prefer to see people have moved in their career, from lower to management ...»

« ...should have some regalia in industry.... »

«.... should have publications, maybe in different journals or magazines, but he should have published. However, each case is individual. If he [the candidate] is a very

interesting personality, then the lack or absence of publications should not be the reason to refuse the candidate...»

«...Number of publications is not important. Patents - it does not matter. The quality and the impacts matters... «

«...I would not take for granted that if they have excellent career they are necessary able to transfer this to the students...»

«...good at communication, express ideas clearly and simply they ask questions, and PoP should be able to answer. good in oral and written communication - he convinces others in his ideas...»

«...I will look for an open mind, because you may be doing something in industry and you are successful in doing that but when you want to transfer that in to the university you have to be willing to understand that the environment will be different...»

D. How do you want to verify if a candidate for this position possesses such skills, knowledge and competencies?

“Ask them to explain the main concepts of their subject of interest. Often times I was surprised that they could not explain the main concepts in their field. This means they would not be able to explain things to their students.”

“We challenge them in two specific areas: why would you want to teach? What is unique about what you bring?”

“You can ask about a specific situation – case. If you have a class of students on best or the worst - everybody says they will focus on the tail.”

“Have you developed some rules other people can follow? Give examples of how to transmit this knowledge?”

“I would ask them to give a seminar; this is an interview without interviewing.”

E. In your opinion, who is a PoP role model? Why?

“Invented new teaching techniques.”

“He worked to the age of 50 or 55 in the industry. He saw things which were similar, he/she can identify patterns to generalize knowledge. He has done research about some general processes, and has put together some processes of his/her own.”

“He has good industry experience, and is not too tired nor too worn out. Someone who is close to the end of their career. Has been in IT work, is a group leader, senior management of a department and is able to see the big picture.”

“He really focuses on the students; he/she did not have much teaching experience; he/she is not particularly worried being in Academia; someone who is interested in making an impact.”

“A very interesting profile, from a regular engineer to a managerial position; in-depth industry experience is significant.”

F. Why did you reject the latest candidate? Or why would you reject a candidate?

“Had no understanding of the academic world. With which of the persons in the university he would like to work with and why? The candidate did not do his homework, did not peruse the IU website. He showed rejection and hostility in collaboration; He applied mostly out of curiosity.”

“He was not up to the level. He had a career, but he was not different from any other engineers working in the same field. To me, he was an ordinary programmer, but not of the level we expect from a professor at IU. He was an economist and a manager, too introverted to be a manager.”

“Did not understand what value he was bringing.”

“He was always trying to prove that he was the smartest person in the room and he was never wrong; somebody not capable of talking about the work of other people.”

“They teach a class subject which they are interested in, but nobody else cares.”