The professional profile of PhD-holders

Yongzhen HOU

Particle Physics and Nuclear Physics

yongzhen.hou@etu.unistra.fr

Core business

PHASE 1 **Skill development**

Set my own long-term professional goals and set some short-term mini-goals. Regularly monitor and review relevant goals by myself and a close friend. Understand and become familiar with general life knowledge and various life skills.

Sets his professional goals to be ambitious yet realistic.
Identifies and develops means to enhance his employability throughout his career; manages his professional development.
Broadens and upgrades his skillset, personal qualities and achievements.
Uses his networks to expand his scope of competence.
Knows how to transfer his expertise to other fields of activity.
Realizes the necessarily international dimension of his career path.
Accepts input from a mentor or coach to benefit his professional development.

PHASE 1 **Evaluation**

Have a general understanding of the various documents in my area of expertise. In-depth knowledge and study of information related to my subject. When referring to relevant literature, first browse the literature and read the abstracts of the articles carefully to get a basic understanding and a preconception of whether they will be useful to me. Discuss my research progress with my supervisor and, if possible, report and discuss it with fellow experts.

Evaluates the value of various documents concerning his field of expertise.
Is able to judge his own results in terms of both quality and added value.
Is willing to expose ideas to a critical audience; takes others' opinions of his work into account.
Is willing to evaluate the work of other contributors and provides reasoned, realistic judgments of others' work.

PHASE 1 **Information management**

I will check my major's email every morning, which contains real-time updates on developments and publications in the field sent by my collaboration. This gave me a basic understanding of the various new findings in my speciality and new results. I also have a good understanding of the various searches associated with the field.

Knows how to review the state of the art (SOTA) in a scientific topic.
Makes efficient use of information-gathering methods, identifies pertinent resources, particularly bibliographic resources.
Masters web-based research (e.g., bibliographic databases, patent databases)
Knows how to judge the pertinence of information, critique sources and check source reliability.
Designs and implements information-gathering and management systems using suitable technology.
Addresses issues relating to the security and life cycle of data.

Seeks out support from experts in information and data management.

PHASE 1 **Expertise and methods**

Regularly check for specialist articles through relevant websites such as arxiv, inspirehep, and the webpage of collaboration. To have a detailed understanding of the analysis notes related to my own analysis through the web pages within the collaboration. Thus having a clearer idea of own analysis process. Attend relevant conferences, and report on the progress of my research.

Masters the basic knowledge and key concepts of his field and knows their history and their significance.
Is familiar with recent progress in his field.
Can view his research activities within an international context.
Is familiar with the investigative methods and techniques of his field (including mathematics and statistics) and can explain why they are appropriate for a given purpose.
Is able to consider alternative methods and techniques.
Is able to formulate problems and hypotheses according to needs.
Defends his research findings in a constructive manner; provides evidence to support his ideas and proposals.
Organizes his presentations in a clear, informative and concise manner.

Personal and relational qualities

PHASE 1 **Communication**

when creating my own presentations, I first look up relevant presentations by other experts and colleagues at conferences and collaborative groups to gain an understanding of the process and content. I will then plan my slides, review them with my supervisors, and rehearse the presentation. Whenever possible, I try to think backwards about the questions that might be asked by the audience and answer them.

Knows how to put together a persuasive presentation and communicate about his project or his activity.
Understands, interprets and communicates appropriately in a register suited to his aims and his audience.
Masters a range of communication tools.
Masters his online identity.
Contributes to the dissemination of knowledge within the company, and demonstrates effective teaching skills.
Is proficient in at least English and one other world language.

PHASE 1 **Collaboration**

my current research involves working with a young cooperator in the UK, we are not in the same place, but we regularly share progress, questions and results via the Internet and email, and discuss what we need to do next. I think it's important to communicate in a timely manner in this area.

Develops and maintains cooperative networks.
Knows how to build a professional network for his own and the company's benefit.
Is considered an authority in his field of expertise.
Is able to envisage his work in a partnership framework; evaluates the benefits and limitations of a partnership and identifies shared and conflicting interests.

PHASE 1 **Analysis, synthesis and critical thinking**

Read a lot of papers and summarise the articles of interest, including a summary of the analysis process and results.

Analyzes his own findings and those of his peers.
Is able to synthesize; expresses key ideas clearly.
Can sort and rank information according to the goal.
Pursues his reasoning and hypotheses free of dogmatism or ideological bias.
Has the objectivity to consider various schools of thought; is able to modify his point of view.
Demonstrates intellectual rigor.

PHASE 1 Commitment

Recognizes and can clearly identify his sources of motivation.
Is able to sustain his commitment and motivation in the face of setbacks and adversity.
Deals efficiently with the routine aspects of his job.
Strives for excellence; shows determination.
Learns from his mistakes and bounces back from failures.
Relies on the support and assistance of his peers.

PHASE 1 Balance

> Have a clear perception of myself, abilities and knowledge already possessed, and knowledge to be learned.

Is aware of his aptitudes, knows how to take advantage of them and demonstrate them.
Expresses himself relevantly, confidently and didactically.
Recognizes the limits of his knowledge, skills and expertise, and knows where to find support when needed.
Is able to consider his practices and experience as part of the bigger picture.
Develops his strengths and knows how to correct his weaknesses by seeking the opinion of others.
Is aware of the need to reconcile career and personal life.
Develops mechanisms to cope with pressure and seeks support when needed.

PHASE 1 Listening and empathy

Has the ability to listen in various situations.
Understands the needs and way of thinking of the people he deals with, including those with a different field of expertise, occupation and/or culture.