Development of an International Body of Knowledge to Assure Competency in Innovation

The Call to Professionalize

Dr. Brett Trusko
President and CEO
International Association of Innovation Professionals
<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineer</td>
<td>13,572,928</td>
</tr>
<tr>
<td>Innovation</td>
<td>2,763,628</td>
</tr>
<tr>
<td>Accountant</td>
<td>2,319,446</td>
</tr>
<tr>
<td>Nurse</td>
<td>1,334,994</td>
</tr>
<tr>
<td>Attorney</td>
<td>722,959</td>
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</tbody>
</table>
Professional Certification

- What must someone know?
- Who measures that competency?
- How can you be assured that an individual stays up-to-date?

Polidoro (2013) stated “Certifications are relevant social cues that assist decision making under uncertainty.”
- That certifications should be consistent with ISO/IEC 17024 - *Conformity assessment — General requirements for bodies operating certification of persons*.

Requirements include:

a. Fairness
b. Policies and Procedures
c. Independent and impartial
d. Ethical
e. Affordable
f. Transparent

*The entire conformance assessment is only 19 pages long, but they are important pages*
- Less than three years old (April 16)
- More than 470 members in 37 countries
- Four Certification Exams
- Two Certification Exams before year end
- The International Journal of Innovation Science
- The Global Innovation Science Handbook (52 authors, 800 pages)
- Three new books on Innovation Tools
- Consist with ISO standards
- Partner with anyone who is interested in furthering innovation efforts
- [http://www.iaoip.org](http://www.iaoip.org)
Foundations of IAOIP

The International Journal of Innovation Science

- Founded in 2008
- Double-blind Peer Review
- 2,500 words to 10,000 words
- Generally must demonstrate everything and academic journal must including:
  - Repeatability
  - Reliability
  - Novel research in innovation
The Science of Innovation

**Business Science:** Entrepreneurship, Management, Operations, Project Management

**Humanity/Social Sciences:** Creativity, Ethnography, Human Focused Design, Leadership

**Problem Solving Sciences:** Math, Engineering, Physics, Chemistry, Life Sciences
The Science of Innovation

**Business Science:**
Entrepreneurship, Management, Operations, Project Management

**Problem Solving Sciences:**
Math, Engineering, Physics, Chemistry, Life Sciences

**Humanity/Social Sciences:**
Creativity, Ethnography, Human Focused Design, Leadership

- Improved products/services, fix problems, optimization
- New business models, unexpected delightful products/services
- New business offerings, services, non-profit growth
- Enhanced products/services, unexpected features, pleasing products
- New business offerings, delightful products/services
Certificate vs Certification

- A certificate program is to provide instruction and training to aid learners in acquiring specific knowledge, skills, and competencies associated with intended learning outcomes.

- A certification program(s) purpose is to confirm that an individual has acquired (prior to applying for certification) a set of knowledge, skills, and competencies critical to the competent performance of a professional role or specific work-related tasks.
Certification Creation

Reputable, Recognized, and Creditable

• Certification created by the non-profit **International Association of Innovation Professionals (IAOIP)**.

• Developed by over 400 leading innovation experts from 37 countries.

• Questions compiled from *The Global Innovation Science Handbook (1st Ed)* (referred to as the **GISH** from here on) and thousand of pages of peer reviewed publications on innovation.

• Created with the most current knowledge on innovation science and **continuously updated**.

• To eventually require evidence through the completion of an advanced project.
How does this compare to . . .

**Accountant** – Must pass an exam and complete a certain number of hours worked under the supervision of a chartered/certified accountant.

**Professional Engineer** – Must intern, have related experience of four years and pass the exam.

**Nurse** – Varies by location. Generally requires experience and an examination.

**Attorney** – Earn a JD (in lieu of experience) and pass the Bar Exam

Since we are a young organization we have yet to develop the complete “expert level” exams but expect to do so in the next three to five years.
The Certification Framework

- **Increasing Knowledge, Proven Ability and Experience**
  - **Foundation Certification**
    - A Foundation Level exam designed to test the professional innovator’s broad level of knowledge of the science of innovation.
  - **Understanding**
  - **Applying**
  - **Analyzing**
  - **Broadly applying multiple aspects of knowledge**
  - **Creating New Knowledge**

- **Advanced/Expert Certification**
  - The highest level of recognition for having obtained 7 of the 12 Practitioner level certifications within a three year period. A series of 12 exams based on the Body of Knowledge as developed by the IAOIP Working Groups or in cooperation with knowledge specific professional groups.
<table>
<thead>
<tr>
<th>Body of Knowledge (by Working Group)</th>
<th>Working Group (WG) or Cooperative Certification (CC)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Thinking (Available)</strong></td>
<td>WG</td>
</tr>
<tr>
<td><strong>Deployment</strong></td>
<td>WG</td>
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<tr>
<td><strong>Development</strong></td>
<td>WG</td>
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<tr>
<td><strong>Idea Generation</strong></td>
<td>WG</td>
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<tr>
<td><strong>Innovation Architecture</strong></td>
<td>WG</td>
</tr>
<tr>
<td><strong>Innovation Concepts</strong></td>
<td>WG</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>WG/CC</td>
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<tr>
<td><strong>Measurement</strong> (Planned release 2016)</td>
<td>WG</td>
</tr>
<tr>
<td><strong>Methodologies and Tools</strong> (3 CPIs planned for 2016)</td>
<td>WG</td>
</tr>
<tr>
<td><strong>Opportunity Identification</strong></td>
<td>WG</td>
</tr>
<tr>
<td><strong>Value Creation</strong></td>
<td>WG</td>
</tr>
<tr>
<td><strong>TRIZ/ARIZ</strong></td>
<td>CC (with the Altshuller Institute)</td>
</tr>
</tbody>
</table>
This slide deck (as is the Study Guide) is based on the IAOIP *Foundation Level* construct and is broken down into six areas:

I. Terms and Definitions
II. Culture of Innovation
III. Types of Innovation
IV. Methods and Tools
V. Process of Innovation
VI. Creativity, Ideas, Ideation
Terms and Definitions

There are few things as important to the establishment of a science as a *common language*.

There’s currently about **120 common terms** to be understood and used for this level of certification

--*Use as a common starting point*

--*One definition not in the glossary----Innovation!*

There is more than one definition in the **GISH**.
Innovation is “creating new value” in the opinion of many authors. That’s a broad definition, which can be viewed on a continuum from optimizing the existing business, to developing new products and services for known needs, to the discovery and formulation of entirely new models to serve currently unknown customer and user needs.

There is a need to clearly distinguish between:

• the optimization team whose focus is to optimize core capabilities to out-execute the competition
• the product development team that develops new products and services for known consumer needs
• the discovery and formulation team that seeks entirely new needs and related business models
**Benefits of an IAOIP Innovation Certification for an Individual**

**Builds knowledge and skills in applying innovation**
- Certified members will have base knowledge of a wide range of the science of innovation.
- Studying for a certification exam motivates individuals to learn more innovation science tools and methods that benefit their business.

**Public and visible endorsement of your skills**
- Authenticates your knowledge in facilitating and implementing innovation.
- Certified members listed on IAOIP website for reference checks.
- Internationally recognized and creditable organization.

**Entry into practicing innovation**
- The first certification exam is an entry-level certification for people interested in innovation.
- Is a first step toward becoming a proven leader in the industry, and is a career pathway to advanced certifications in practical areas of the science of innovation.
Benefits of an Innovation Certification for an Individual

Access to the IAOIP’s Member Base

- Member range from innovation knowledge leaders, working professionals, to entry level students and employees.
- Network with members by attending annual innovation conferences.
- Join forces with other members to set best practices.

On-going education and networking

- The first exam is a “Foundation Level” and designed to lead into higher level certifications.
- A “Management of Innovation” certification became available in March, 2016.
- Additional certifications will be available for specific industries or disciplines such as sustainability, healthcare, etc.
Benefits to the Organization

Hiring a Certified Innovation Professional/Practitioner/Manager doesn’t guarantee that the individual is an innovator, but it does demonstrate that they know the tools and techniques of innovation.

To use a sports metaphor . . . .

Barca (Barcelona) built a team around Messi primarily and Neymar. Find your Messi and Neymar, surround Them with class A talent
Or people who know how to play very well and your Innovators become more Likely to be successful.
Don’t be the News

The World Trade Center Story . . .

Don’t be on the first page of the local newspaper or news broadcast!!
What You Can Do . . .

- Contribute to the body of knowledge (you can join or just submit ideas to noreply@iaoop.org)
- Post jobs to the site (free)
- Contribute papers to the IJIS
- Consider participating as a case study
- Form a chapter
- Become a governmental, academic or corporate member to support the effort

- Don’t make the first page of the paper . . .