
Taking Charge of your LIS Career: Personal Strategies, Institutional Programs, Strong Libraries
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Training Course: Certified Specialist in Innovation Management

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Abstract:

For libraries, innovation needs to focus on recognizing and addressing consumer requirements and future services combined with implementing and embracing new technologies. To accomplish this they have to implement strategic innovation management. The objectives of innovation management are to develop and implement innovation strategies, to recognize and take up market trends, to develop new business ideas for present and new service / product fields, and to support departments and customers in their value-added process. In libraries, however, systematic innovation (management) is less developed and usually not part of professional education and / or further training. Although librarians need the specific expertise of strategic innovation management, they cannot build up this expertise by self-learning because of the complexity and numerous issues involved.

One solution is the development of a certificate course in innovation management for librarians that includes a high proportion of e-learning and practice. Such a certificate course could qualify librarians to master the challenges posed by innovation management better and on a more long-term basis. The course could be designed as a blended learning course with several attendance and online phases. The course consists of eight modules. At each stage of the innovation process the themes, methods, techniques and tools that are useful in practice will be introduced and taught. Such a course has a strong practical orientation because it is structured completely along the lines and stages of an ideal innovation process, so that participants could apply theory directly to practice. This type of extremely practical module, oriented to one's own library, also has the benefit that further education and training workloads can be integrated into normal working hours and so considerably reduces study time during the student's leisure time.

Keywords: e-learning, innovation management, certification, information management, continuing professional development

Introduction

In many industries systematic innovation management is a key business strategy. Manufacturing companies are the leaders in this field, because at the end of the innovation process applications can be made for patents that ideally represent new products or optimize existing ones. Systematic innovation management is however less developed in the field of services and processes, especially in the field of Library and Information Science (LIS).

One gains the impression that information science institutions do not take strategic action, and that innovations are often the result of chance. One of the reasons why many innovations are not successful is because innovations are novel approaches that require new approaches and new knowledge.

Only a few universities have institutionalized innovation management as an integral part of their study programmes – and not at all in library and information science. It appears necessary to implement training courses in innovation management as a special advanced education course for librarians and information specialists. Because this is a complex issue it seems useful to offer a one-year certificate course.

Background to Innovations and market trends

Following Schumpeter's theory (Schumpeter 1934: 66), innovation is:

- the introduction of a new good [...] or of a new quality of the good [...],
- the introduction of a new method of production [...],
- the opening of a new market [...],
- the conquest of a new source of supply [...] and
- the carrying out of the new organization of an industry [...].

Different forms of institutional innovations include:

- Product / service innovation
- Process innovation
- Market innovation
- Cultural innovation
- Structural innovation

There are many definitions of innovation. One comprehensive definition is:

“Innovation is the renewal and enlargement of the range of products and services and the associated markets; the establishment of new methods of production, supply and distribution; the introduction of changes in management, work organization, and the working conditions and skills of the workforce.” (European Commission 1995: 1)

Most innovations from libraries deal with service and process:

“Organisational innovation reflects the recognition that new ways of organising work in areas such as workforce management (such as positive action to involve all employees in order to make work organization a collective resource for innovation), distribution, [...] etc. can have a positive influence on competitiveness.” (Commission of the European Communities 2003: 6)

The product and service sector has to be aimed at customer needs so that the single customer is satisfied while entrepreneurial goals are simultaneously achieved. This means that new services must be individually tailored to the customer and the market. Too often good personal ideas are realized without analyzing whether the customer and/or the market need these services or whether the market is ready for them.

The level of customer service is rising in the face of competitive pressure. For example, in the past it was enough to offer standard (standby) service. Today, customers expect full 24-hour availability and the shortest possible response time. Therefore LIS institutions are forced to develop new solutions and services because of increasing competition and the dynamism of information science services.

The service sector is being pushed by modern networked information, communication technologies, and internationalization. This process is ongoing and increases the pressure on enterprises and organizations not only to modernize their internal processes and develop new business models and services but also to push ahead with creating new forms of customer relations and ways of maintaining customer loyalty.

In times of diminishing budgets and shorter innovation cycles, innovation management becomes more and more important and is a necessity as well as an opportunity for prevailing in the market. In today's highly competitive (global) markets, customer acquisition, customer orientation, customer loyalty, and comprehensive services are decisive factors for market success. This applies especially to non-profit organizations like libraries. As a result, librarians and information managers have to recognize future business fields early on in order to keep pace with fast-changing markets.

For libraries, innovation needs to centre on recognizing and addressing consumer requirements and future services combined with new technologies. The objective of innovation management is therefore to develop and implement innovation strategies, to recognize and take up market trends, to develop new business ideas for present and new service / product fields, and to support departments and customers in their value-added process.

Innovation Management

Based on the work of Schaeppi (2005), the main success factors of innovation management can be identified as:

- Systematic market analysis and research
- Customer demand surveys
- Human resources management
- Knowledge generation and management
- Use of modern information and communication technologies
- Success-oriented corporate / institutional culture
- Organizational structure for interdisciplinary projects
- Clear market, technology and cooperation strategies
- Precise market-oriented product / service and project definitions
- Efficient interdisciplinary teamwork
- Stronger weighting of predevelopment and product / service definition phase
- Structured innovation process, transparent Go/Stop decisions

- Efficient project management,
- Usage of integrated development methods
- Support of creativity
- Simultaneous product / service, production and marketing development
- Market-oriented cost and quality management
- Prototyping and customer oriented product / service tests and
- Systematic innovation communication. (Schäppi 2005: 8)

“There must be a strong entrepreneurial orientation among management and staff if enterprises are to show this kind of dynamic capability. Policy should help to promote entrepreneurial behaviour, for example by pointing to role models and by offering specific forms of training. [...] So are education and training, contributing to attitudes to innovation and providing the skills required by the innovative enterprise? The knowledge and learning capacities of people are instrumental for innovation processes, as are their powers of creativity, initiative and drive, determining to a large extent the innovation capability of organisations.” (Commission of the European Communities 2003: 8)

The public sector, like other sectors of society and the economy, faces pressures to innovate and do things differently in order to achieve better outcomes and meet the expectations of governments, stakeholders, and citizens. Because of the scale and complexity of the topic of innovation management, libraries have to implement strategic innovation management which covers and includes all these aspects.

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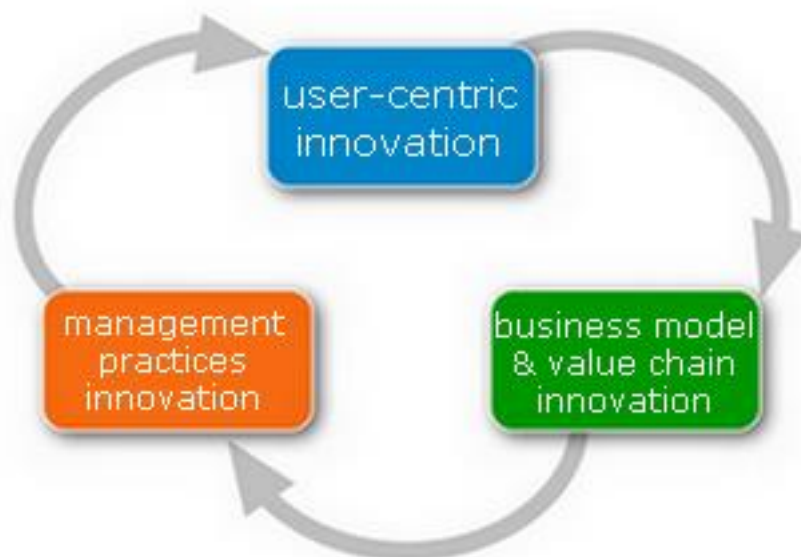


Figure 1: Business Innovation Service Circle (Bizneos 2015)

The purpose of user-centric innovation is to understand what customers really want. The point is to identify significant unfulfilled sources of customer value. Therefore innovation managers in libraries need well-founded (theoretical) knowledge of economics, library and information policy, business models, value chain and change management to be successful in innovation management. Business models and value chain innovation incorporate aspects such as business agility, rethinking business, entrepreneurial design, and discovery-driven planning.

Success in a service economy demands targeted human resource development – in other words purposeful personnel development, new models of employee participation (e.g. organization, business processes etc.), and the intensive use and assessment of knowledge.

Training for Innovation Management – current status

There are numerous effective continuing vocational training opportunities for engineers in innovation management, especially in the area of product innovations, but most of these training opportunities are not appropriate for service institutions like libraries. Participants in these courses and degree programmes learn a good deal about research and development (R&D), intellectual property (IP), presentation of technical details and prototyping.

There are only a few programme offerings in innovation management for service and process innovations. One example is the Executive Master's Degree in International Media Innovation Management at Berlin University for Professional Studies. (Deutsche Universität für Weiterbildung n.d.)

“As an innovation manager in a media company, you recognize future business fields early on, so that your company can keep pace with the fast-changing market. You shape the changes that are necessary in the company. You develop new strategies, products and services that exploit the potential of the Internet, with its innovative ways of distributing media content and interacting with the audience. To accomplish these tasks, you evaluate cross-media business plans and specify multichannel perspectives and other novel content workflows (Deutsche Universität für Weiterbildung n.d.)”

This is a very project-oriented and practice-oriented study programme with many very relevant topics in the field of media, but only a few libraries, information centres and other non-profit institutions can employ a full-time innovation manager. In practice an innovation manager in a library will have a lot of other tasks and functions. Therefore a master's level study programme information specialists cannot build up their expertise by self-learning due to the complexity and large number of the issues involved in innovation management. A part-time certificate course therefore seems to be more appropriate to educate and qualify librarians as innovation managers.

Certificate Courses

“As career cycles get shorter and the tendency to assume several new roles and tasks could be too time-consuming, extensive, and detailed. On the other hand librarians and over a professional lifetime increases it will be the task of German vendors of library science courses and of

professional relevant associations to support librarians, information specialists and employers in planning skills portfolios not only for courses of study but also for formal and recognised certificates of qualification (Herget, Mader 2010: 220) as the German Conference of University Rectors [HRK]- demands.” (HRK 2012: 17)

Offering specialisation within library and information science via further education and training courses should in future be of particular interest. Graduates would be qualified for innovative and ‘future-proof’ tasks in libraries and information centres. Close cooperation with the vendors of further education and training opportunities seems a good idea (for example, creating the option of taking individual subjects as certificate courses that might for example be credited toward a later course of university study.)

“More comprehensive and more in-depth than further training courses that e.g. are in the form of a seminar or workshop lasting a day or two [...], such courses are meant to enable those who pass them to apply and to develop new action strategies and solution approaches to real challenges / problems in their everyday work, i.e. the teaching concepts are oriented to the “learning outcome” required.” (HRK 2012: 17)”

Certificate courses have a number of benefits for both participants and employers.

Certificate courses summarise current knowledge in a clearly defined and delimited subject area; cover integrative consecutive training; allow participants to draft new strategies and approaches to solutions at a scientific level to meet actual challenges and problems in their everyday work; qualify participants for studying alongside their job/s in specific subject areas; and expand their horizons in accordance with the philosophy of lifelong learning. (Fingerle & Georgy 2015)

Certificate courses last from a few months up to about a year, are designed as blended learning courses with several attendance and online phases, and are very practice-oriented. Practical work could be done in the form of project work for one’s own institution (e.g. a new method or process could be tested in practice). If these projects are carried out in tandem the participants can obtain direct feedback from their colleagues.

Certificate Course Innovation Management

The approach of A.T. Kearney’s House of Innovation includes all relevant dimensions of innovation management (Diedrichs, Engel and Wagner 2006). First, every organization needs an innovation strategy that is aligned with the business strategy; secondly an innovation culture is a prerequisite for successful action in innovation management. Thirdly a life cycle management is a key element of innovation management, and the basis of a successful innovation management are the enabling factors like knowledge, intellectual property etc.

It seems to be necessary that these dimensions of innovation management are implemented on a continuous basis in a company but also in libraries.

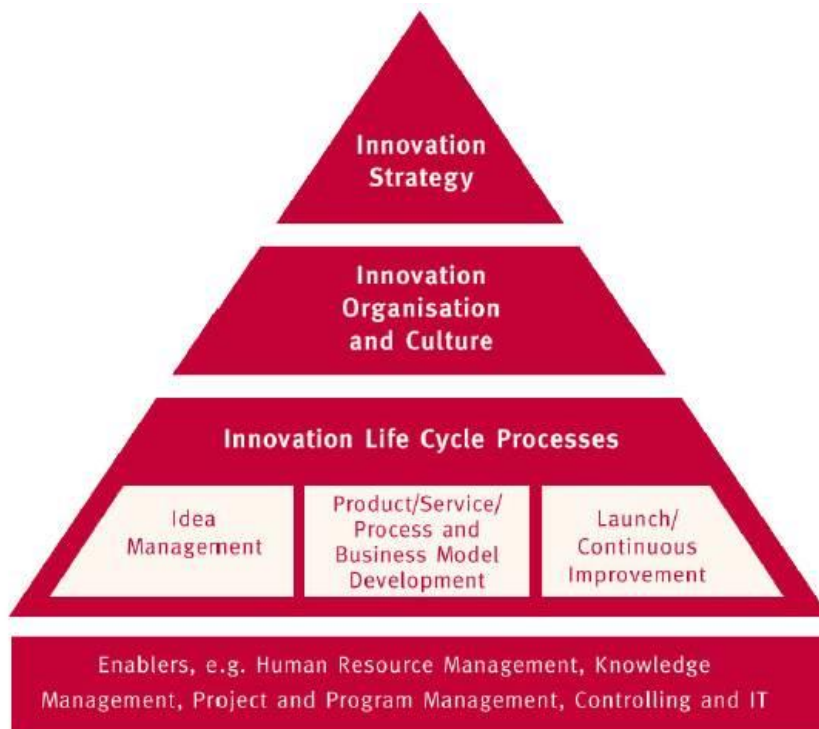


Figure 2: House of Innovation (A.T. Kearney) (Alopex 2013)

The roof of the House of Innovation is the innovation strategy, a planning process that clearly defines those institutional goals for which innovations are necessary and how they can be supported by resources, processes, technologies, and behaviours within the organization. This House of Innovation also shows the complexity of innovation management, and it is the goal of such a certificate course to divide this complex construct and the relevant assignments into smaller steps.

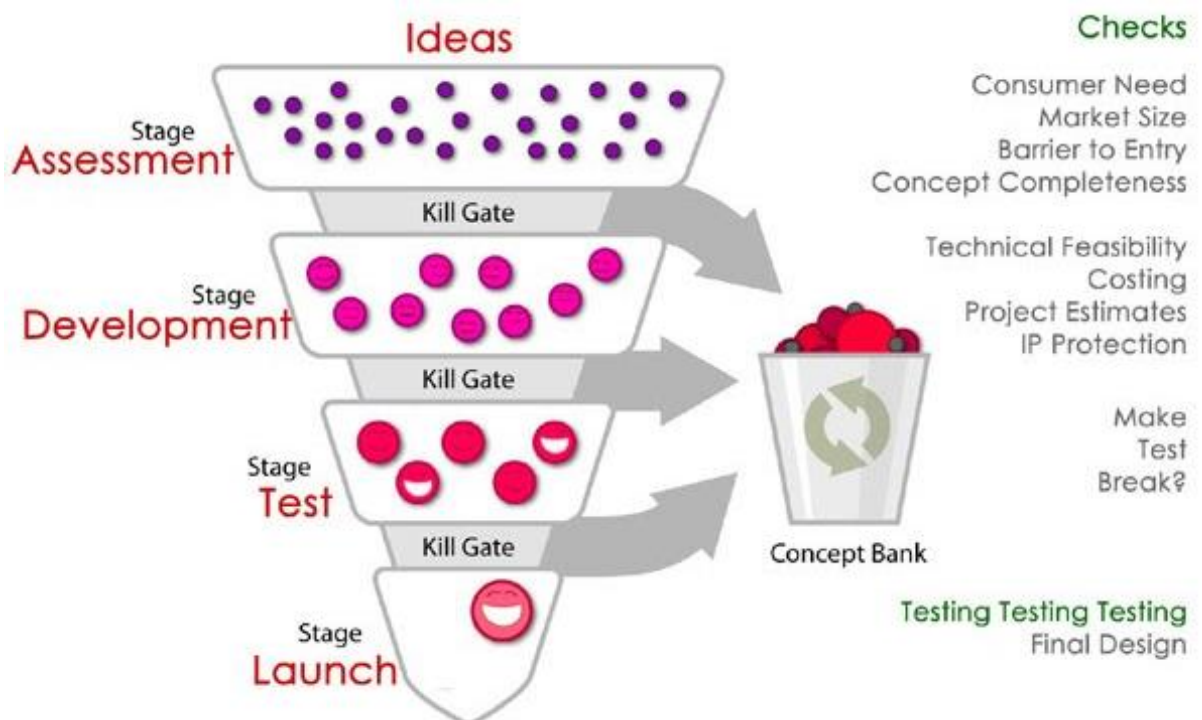


Figure 3: Innovation Funnel (ASHP Foundation 2010)

An innovation process has a minimum of four stages. It must be a very systematic process with a clearly structured workflow and it seems important to have an orientation toward linear process models (i.e., a subsequent phase may not begin before previous phase is completed). Last but not least it is essential and imperative to work with key milestones to reduce the complexity of an innovation project. At each stage of the innovation process the adequate themes, methods, techniques, and tools to be very useful in practice will be introduced and taught.

The following modules / topics are planned (Fingerle, Georgy 2015)

Module 1: Prerequisites for Successful Innovation

- Areas and types of innovations (e.g. product / service innovation, process innovation, position / market innovation, paradigm innovation)
- Innovation and invention (transformation of an idea into useful applications, creation of something new)
- Specific characteristics of innovation projects (multi-disciplinary, complex structures, sophisticated funding, failure is an option, environment of trust, team autonomy)
- Innovation process (conversion of a problem into a challenge)
- Innovation strategies (building up innovation systems and structures, promoting innovation culture, upgrading innovation capabilities)
- Fundamentally different approaches of innovation management (open innovation / closed innovation)
- Role and organization of innovation management in libraries (top-down (management) and bottom-up (motivation) strategy)

Module 2: Future, trends, technologies, customer needs, and market and competitive environment for libraries

- Futurology and trend research (early recognition of trends, establishing think-tanks, development strategies, future scenarios, using scientific methods (e.g. Delphi))
- Technology monitoring (identifying relevant technologies to support innovative services)
- Technology road mapping (structured visual platform for communication between functions and organisations: functional perspectives, roadmap framework, knowledge types, information types)
- Competitive analysis (identifying competitors, determining their goals, strategies, strengths and weaknesses etc.)
- Market research (target market analysis, location analysis etc.)
- SWOT analysis (strengths, weaknesses, opportunities and threats)
- Wisdom of the crowd, crowdsourcing (collective intelligence, swarm intelligence, outsourcing in the form of a (open) call, turn consumers into “producers”)

Module 3: Finding Ideas – Evaluation and Selection

- Creativity, creative thinking and problem solving (the value of creativity, understanding problems, failure tolerance, ideation)
- Intrinsic and extrinsic motivation, reward and incentive systems
- Creative methods for generating ideas, evaluating ideas and prioritizing ideas (divergent thinking, brainstorming, brainwriting, solution mapping, mind-mapping, six thinking hats, lateral thinking, CDAM technique, benchmarking etc.)

Module 4: Finding Ideas – Concept Development

- Service Design
 - Facilitation design
 - Touchpoint analysis
 - Storytelling, story and process mapping, story and process illustration
 - Orchestrating experiences

Module 5: Implementing Innovations

- Case studies ((inter)cultural aspects, political aspects)
- Process research
- Analytical generalizing (limitations)
- Project management (see above)
- Moderation and handling of conflicts (moderation, mediation)

Module 6: Market Launch and Reflection on the Innovation Process

- Strategic and operative marketing (marketing goals and strategies, marketing-mix etc.)
- Public relations and social media (writing press releases, Facebook, twitter)
- Brand and profile developing, image (branding, brand strategies, mission statement etc.)
- Cross-media workflow (content creation, personalization, marketing automation etc.)
- Controlling innovation (responsibilities, business control process, transparency)

Module 7: Cross-cutting issues across all modules

- Management of innovation processes
- Knowledge management
- (Internal) innovation marketing, innovation PR
- Change management
- Enterprise 2.0
- Open innovation etc.

Module 8: Final

- Open topics and addressing other important issues
- Reflection of the course contents and learning processes
- Final presentation and examination

Conclusion: organizational context

The course will be coordinated and organized by the ZBIW - Zentrum fuer Bibliotheks- und Informationswissenschaftliche Weiterbildung der TH Koeln (formerly Fachhochschule Koeln), Institut fuer Informationswissenschaft, that is, the Library and Information Science Further Education and Training Centre of the TH Koeln (formerly Cologne University of Applied Sciences), Institute of Information Science.

A major advantage of a university facility is the availability of teachers who have depth of knowledge and experience of current subjects and learning in the fields of science and related research. They are knowledgeable about didactic methodology for adult education and can apply it in these courses. They also use practical examples and problems drawn from

professionally relevant subjects as well as being active in teaching and research, being experts in their specific fields and/or having experience in the field. (Georgy 2015: in print)

Finally, the quality of the programme is ensured by constant evaluation that tests teaching content and conditions. Quality assurance and development in further education and training courses are supplemented by regular audits and accreditations. And, last but not least, the participants will receive a university certificate with ECTS units (European Credit Transfer System).

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