

Toward a Framework for Preparing Leaders in a Global Information Context

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This article addresses a framework for conceptualizing the preparation of leaders for the library and information science (LIS) profession. The framework has three components: curriculum, pedagogy, and assessment (CPA). Moreover, this framework is mirrored in examples from two LIS programs (one in Finland and one in the United States) and discusses how the future expertise of library and information professions can be foreseen in educational programs. This study demonstrates how LIS programs can utilize this framework in developing an intentional and holistic approach to guide, review, and impart leadership education in a global information context.

Keywords: assessment, curriculum, information professionals, leadership, pedagogy

The library and information service field is undergoing constant change. According to [IFLA's trend reports \(2017, 2018\)](#), the future will generate a number of new challenges for the field: technologies will both expand and limit access to information, online education will democratize and disrupt global learning, while hyper-connected societies will empower new voices and groups. Further, digitalization has already forced library management to balance new tasks with existing services ([Le, 2014](#)). Thus, all these changes make it incumbent on library and information science (LIS) programs to equip prospective students with leadership and change-management skills to lead their organizations into the future. Effective leaders are reflective, adaptive, visionary, and innovative, and they challenge the professional staff to be creative ([Ammons-Stephens et al., 2009](#); [Riggs, 2008](#)). This makes it imperative for LIS programs to take these skills into consideration and plan for suitable pedagogical approaches to support the leadership skills of students. In keeping with this, the major goals of this study are to understand the following:

KEY POINTS:

- This study addresses a framework for conceptualizing the preparation of leaders in the library and information science education programs. The proposed framework has three components: curriculum, pedagogy, and assessment (CPA).
- The CPA framework is mirrored in examples from two LIS programs in Finland and the United States and discusses how the future expertise of library and information professions can be foreseen in educational programs.
- This study demonstrates how LIS programs can utilize the CPA framework in developing an intentional and holistic approach to guide, review, and impart leadership education in a global information context.

- What are the common themes in the LIS literature on preparing leaders in library and information services?

- How can LIS programs educate and prepare students for leadership in information organizations?
- How can LIS programs utilize a holistic framework in preparing future leaders?

This study addresses a framework for conceptualizing the preparation of leaders for the library and information science (LIS) profession. This is accomplished by reviewing major leadership themes in LIS research, existing pedagogical considerations, and assessment practices. We provide examples from two LIS programs, one in Finland and one in the United States, and discuss how the future expertise of library and information professions can be foreseen in educational programs.

Review of relevant literature

The importance of cultivating leadership skills in LIS profession

An effective leadership is critical in fulfilling the mission, goals, and objectives of libraries and information organizations. This requires them to possess an appropriate blend of leadership and management skills. As leadership and management terms are often used interchangeably, it is important to understand the difference between these two terms. While management is associated with planning, monitoring, coordinating, and controlling operations, activities, processes, and resources of libraries, leadership is concerned with influencing, motivating, mentoring, guiding, and envisioning library vision, mission, and goals (Kotter, 1990). In other words, leadership and management are two dissimilar yet closely related sides of the same coin. Moreover, they complement each other and play a critical role in accomplishing library goals and objectives.

In the past, leadership skills were seen as a necessity only for those information professionals holding administrative or managerial positions. However, the increasing use of technology has changed the library and information science field. As a result, information professionals are facing new situations that requires them to update their leadership skills and competencies on a regular basis. In particular, these professionals are relying more heavily on leadership skills than ever before, even if they are not in management positions. Hicks and Given (2013) explain that although managerial skills are necessary only for those in management or administration roles, leadership qualities are desired at varying levels of information organizations. Phillips (2014) expresses a similar view by explaining that there is a common misconception that possession of leadership skills is important only for those in managerial roles. Leaders focus on motivating others and thinking about the future, which are qualities necessary for different positions within the LIS field. Developing and facilitating programs for library users are also important aspects of public librarianship that requires leadership skills (Winston & Hazlin, 2003). As technological developments work to change the LIS field, leadership is “the key to transforming libraries to meet the information needs of library users” (Hicks & Given, 2013, p. 15). Gerolimos and Konsta (2008) reviewed job advertisements for LIS positions available in the United Kingdom, Canada, Australia, and the United States to determine the qualifications that employers look for in the field. Their research found that leadership is a skill that employers look for in job candidates. The researchers also identify the need for

administrative skills, which are required for managing departments, and projects that are conducted in the workplace (Gerolimos & Konsta, 2008, p. 695). The listing of leadership and administrative skills in job advertisements in the LIS field demonstrates the need for job seekers to be well prepared with these skills.

Transformational leadership is particularly important in the rapidly changing landscape of the LIS field today. Libraries are struggling with transitional issues as many directors are retiring or considering retirement in the near future. Unfortunately, librarians currently working in the field do not possess the necessary leadership skills necessary to take on managerial roles; therefore, libraries face trouble navigating this time of uncertainty and change. Romaniuk and Haycock (2011) propose that professional development programs can solve the problem of weak leadership in the field. Libraries select candidates with leadership potential to attend these leadership programs in order to ensure reaching the desired outcome, which is to create leaders in the LIS field (Romaniuk & Haycock, 2011). Although professional development programs can temporarily solve the problem of inadequate leaders, LIS professionals recognize the need for LIS programs to begin equipping students with leadership skills needed to take on these challenges in the future.

To sum up, the LIS scholars and professional associations continue to emphasize the need for cultivating leadership skills in information professionals. Equipping information professionals with leadership skills remains a popular discussion topic in professional meetings and conferences. As a result, an exhaustive list of leadership skills and qualities emerges from these regular academic discourses, discussions, and conversations, which is presented in the next section.

Library leadership skills and qualities at a glance

The following library leadership skills and qualities are emphasized in the LIS literature:

- visionary capability: a successful library leader is able to envision the future, to clearly communicate that vision to staff, and to challenge the staff to be creative by using their imagination or finding innovative ways of performing their work (Ammons-Stephens et al., 2009; Düren, 2013; Phillips, 2014; Riggs, 2001; Shoaf, 2004);
- communication skills: a successful leader has well-developed communication skills and is able to inspire (Düren, 2013; Phillips, 2014; Riggs, 2001; Winston, 2005);
- cultural skills: a successful library leader has intercultural skills (Bertot, Sarin, & Percell, 2015) and the ability to build a culture of leadership, acknowledging the power of the individual in the organization; the leader is a facilitator and team player (Ammons-Stephens et al., 2009; Phillips, 2014; Shoaf, 2004);
- managerial effectiveness: a successful library leader has planning skills, including the ability to encourage staff by shaping a trustful environment where values like caring for colleagues and passion for one's work are at the core; the ability to deal with team members' anxieties because of change is important as well, and collaboration, flexibility, and adaptability are valued (Ammons-Stephens et al., 2009; Düren, 2013; Phillips, 2014; Riggs, 2001; Winston, 2005);

- commitment: a successful library leader is dedicated and committed to service, a value held and practiced by everyone in the staff, the leader and management included (Phillips, 2014; Shoaf, 2004);
- marketing and public relations skills: in addition to traditional leadership skills, effective marketing, public relations, and promotional skills are increasingly becoming a requirement in the modern information world (Gerolimos & Konsta, 2008; Winston & Hazlin, 2003);
- digital leadership skills: as technology changes information organizations, new information professionals entering the field are facing situations that require a different set of skills compared to older generations; working with new technology requires professionals to take initiative to effectively explore new innovations, which allows them to better meet the needs of their communities; as the public's perception of public libraries changes with technology, information professionals face the task of ensuring that their organizations stay relevant in the minds of current and potential users (Nonthacumjame, 2011);
- project management skills: successful leaders possess excellent project management skills and the ability to envision, lead, manage, and successfully complete collaborative projects in a timely, efficient, and cost-effective manner; as such, project management skills are increasingly becoming a necessary skill set for future leadership in information organizations (Bertot et al., 2015; Singh & Vorbach, 2017).

In addition to these leadership qualities, some individual skills are highlighted in recent literature; cognitive ability, such as problem solving, decision making, and reflective thinking (Ammons-Stephens et al. 2009; Winston 2005), and personal attributes, like being principled, ethical, honest, humble, gracious, and teachable (Ammons-Stephens, et al. 2009; Düren, 2013).

Status of leadership/management education in LIS curriculum

Despite the stated goals of several professional bodies and LIS scholarly literature to imbue students with leadership and management qualities for their future careers, current curriculums in LIS programs show that courses addressing advanced management topics are either limited or offered infrequently (Singh & Vorbach, 2017). Some LIS programs focus on teaching leadership skills only in the context of an elective course (Hicks & Given, 2013).

Chu (2006) points out that in response to the differing demands placed on programs by a diverse student body, colleges and universities have structured their courses to require fewer core courses in favor of a wide array of electives. Although this increased specialization can help students tailor their learning toward their own career goals (Noh, Ahn, & Choi, 2012), the growing number of leadership and management courses available today reflects only a small percentage of subject types embodied by these various electives (Saladyanant, 2014). Specialization, combined with hands-off advisors, has created cohort after cohort of LIS graduates who have not been made to take a management course, contributing to the "skills gap" signaled by practitioners in the field (Blankson-Hemans & Hibberd, 2004, p. 279). If LIS students are not taught the skills necessary to meet the competences

required in their future field of work, then they could face challenges in meeting the demands of their future workplaces.

In addition to being unable to meet future demands in the LIS field, students could face obstacles prior to entering the workforce. In other words, once LIS students graduate without necessary leadership skills, they could face obstacles during their job searches. Hicks and Given (2013) express that leadership and management skills are desirable qualities in interviewees attempting to enter the LIS field; however, candidates who possess these qualities are difficult to find when hiring. Another implication of inadequate leadership education in LIS programs is that LIS students could be unmotivated to seek leadership opportunities in their future careers (Singh & Vorbach, 2017). LIS professionals who believe that they are unqualified to take on a leadership role in their workplace may shy away from these responsibilities, preventing them from furthering their careers. On the other hand, even LIS professionals who do not desire to take on leadership roles could be forced to take on these positions, regardless of feelings of unpreparedness. For example, information professionals in managerial positions could retire, creating a need for younger LIS professionals to take on these roles sooner than they might envision or desire.

Pedagogical considerations for teaching leadership

LIS educators strive to prepare students for their futures in the field by equipping them with the leadership skills and knowledge necessary to be successful information professionals. A cursory review of management/leadership course syllabi available online indicates that educators utilize a number of pedagogical approaches in teaching leadership and management. The most common pedagogical approaches include assigned course readings on various management/leadership topics, lectures, class discussions, visiting a library, interviewing a manager/leader, and writing a paper on a management. While this style of pedagogy helps provide some exposure and knowledge about various management topics, it does not help enhance students' managerial skills beyond a certain extent. Moreover, it fails to reduce the gap between what is taught in classrooms and the realities of workplace practices in information organizations. Furthermore, many LIS programs tend to emphasize theory heavily rather than providing a good balance of management theory and practice in their courses. As a result, LIS graduates remain ill prepared for various management realities when they join the workforce (Pankl & Coleman, 2010; Singh & Vorbach, 2017).

Educators often choose to utilize problem-based case studies in their courses to enhance students' critical thinking, problem solving, analyzing, and decision making. While the use of case studies is well known in business schools, the empirical evidence of the effectiveness of the case-study approach in LIS programs is relatively unknown (Horava & Curran, 2012; Moniz, 2009; Singh & Rioux, 2018). This situation calls for revisiting existing pedagogical approaches by including a combination of the following elements in teaching leadership and management: readings, lecture/presentation, role playing, panel discussions, small-group discussions, learning reflections on course assignments, collaborative projects, and informal peer-to-peer learning, as just a few examples (Weiner, Breivik, Clark, & Carboni, 2009).

Approaches for assessing leadership preparation in LIS programs

In order to evaluate the overall effectiveness of their program, most ALA-accredited programs have started utilizing end-of-program assessments (EPAs) in recent years (Rathbunn-Grubb, 2012). These EPAs include capstone portfolios, internships, independent studies, comprehensive exams, a master's thesis, and so on, and serve as a showcase for student learning. In addition to demonstrating their learning in other major ALA (2009) "Core Competencies," students are often asked to demonstrate their learning in the area of "Administration and Management" via their capstone e-portfolios. Furthermore, the ALA-accredited programs utilize students' e-portfolios in assessing their learning for the purpose of re-accreditation.

While EPAs help demonstrate students' competencies in various facets of LIS and the overall effectiveness of the entire program, it is relatively unknown if such assessments help determine students' leadership potential and the skills they develop in their programs. Although EPAs show students' reflective and critical-thinking skills, there also exists a tendency on the part of some students to parrot back what their programs want to hear. As a result, such EPA reflections cannot be considered a "be all and end all" assessment, which calls for developing additional framework for the purpose of evaluating students' leadership potential.

Reflecting on critical assessment, Accardi (2010) echoes the often-heard folk wisdom in the LIS field: namely that college- and university-level classes want students to simply regurgitate what they hear, and that the testing mechanisms typically in place "reward conformity to immutable, uninterrogated standards" (p. 251). Accardi's work suggests that along with e-portfolios to showcase their work, self-assessments are tools to empower students and "clear out space for creative disruption, for thoughtful experimentation," that "ultimately, contribute to student learning in a positive and long-lasting way" (p. 262). The benefits of student assessment were also detected by scholars at the Peabody Academic Library Leadership Institute, whose daily evaluation of the program allowed the Institute to adapt quickly and make changes rapidly in response to the feedback (Weiner et al., 2009). In both cases, the speed and gravity with which instructors handled their responses to student assessment increased overall buy-in, generated better critiques, and helped to improve the courses.

The need for challenges to traditional assessment strategies such as exams are seen elsewhere, including from bodies like the IFLA. The 2012 IFLA *Guidelines for Professional Library/Information Educational Programs* emphasizes the need for replacing lectures by finding suitable pedagogical approaches, listing practicums, internships, and fieldwork as a "means to allow students, in a practical way, to appreciate the interplay between professional theories and their application in professional practice" (IFLA, 2012).

In summary, while many LIS programs are engaged in assessing the effectiveness of their programs and students' learning, such assessments are done to fulfill institutional and accreditation requirements. As such, little is known about the overall benefits of their leadership and management courses in developing students' leadership potential and capabilities.

Conceptualizing a framework for preparing future leaders

The literature review in the preceding sections demonstrates that leadership helps to achieve organizational goals in an effective and efficient manner. The LIS literature suggests a number of aspirational leadership qualities and attributes held by information professionals. Many professional associations offer continuing education programs for cultivating leadership potential in information professionals. Similarly, LIS educators strive to prepare students for their futures in the field by equipping them with the skills and knowledge necessary to be successful information professionals. However, a substantial number of LIS programs either do not provide advanced management courses (e.g., project management, marketing and advocacy, financial management, etc.) or are offered on an infrequent basis. Finally, while EPAs help to assess the overall effectiveness of many LIS programs, there remains a gap in conceptualizing a framework for evaluating leadership preparation in LIS programs.

Therefore, the existing leadership/management course content, pedagogical approaches, and assessment strategies used to prepare leaders appear to be inadequate. Despite the seemingly unanimous agreement from students, faculty, professional associations, and other stakeholders that LIS programs should engage and instruct students on the issues of library leadership and management, there is little scholarship on how the content, reach, and results of these courses prepare information professionals for success. Furthermore, this gap highlights the need for developing a holistic approach in preparing leadership/management curriculum content, revisiting existing pedagogical approaches to teaching leadership/management courses, and utilizing pre-determined rigorous assessment methods to impart leadership education in LIS programs.

This study attempts to conceptualize and present a holistic and intentional approach to guide, review, and impart leadership education in LIS programs. The proposed framework (Figure 1) has three components: curriculum, pedagogy, and assessment (CPA). Curriculum means specific content that students learn, pedagogy refers to how content is delivered, and an assessment is how students' learning is evaluated (Capper, Theoharis, & Sebastian, 2006; Miele, 2019).

Curriculum

Much of the existing research discusses LIS course curriculum in a more general way (Chu 2006; Noh et al., 2012), focuses on leadership in specific types of libraries (Düren, 2013), or highlights professional development programs (Weiner et al., 2009). Earlier sections lay out a number of aspirational leadership qualities and attributes in information professionals. A successful leader needs to be visionary, a strategic thinker, committed, service-minded, inspirational, a facilitator, collegial, and a team player in addition to possessing excellent problem-solving, decision-making, communication, and interpersonal skills. Moreover, future leaders are also expected to have project management, intercultural competency, marketing and public relations skills, and digital leadership skills.

The need to prepare LIS graduates for future leadership roles is apparent; how we should accomplish this goal is still unclear. In acknowledgment of this fact, LIS curriculum should be designed in a way that equips LIS graduates with necessary leadership knowledge, skills, and strategies to lead and manage contemporary information organizations.



Figure 1: Framework for preparing leaders in LIS programs

Pedagogy

Pedagogy refers to how curriculum contents are delivered in the classroom. It encompasses a broad range of activities in a traditional face-to-face classroom setting, which includes lectures, discussions, group work, individual projects, and seminars, among others. Instructors are constantly challenged to reflect, reevaluate, reconsider, and adapt their pedagogical approaches to students as well as the learning modality (e.g., face-to-face, blended, online) in which they deliver their course content.

The literature review also indicates a lack of adequate scholarship about suitable pedagogical approaches for imparting leadership and management education in LIS programs. While a few studies have emphasized the use of problem-based case studies in teaching management courses, it is relatively unknown if the case-study approach is being utilized in the classroom and to what extent (Horava & Curran, 2012; Moniz, 2009; Singh & Rioux, 2018). Consequently, conventional pedagogical approaches appear to take precedence in teaching leadership/management courses. As a result, students remain ill equipped for complex workplace situations in contemporary information organizations. For example, future information professionals are increasingly being asked to be proficient in project management, budgeting, and intercultural skills in addition to possessing a number of “soft skills” for various managerial roles and responsibilities. Such soft skills include, but are not limited to, communication, teamwork, negotiation, consensus building, delegation,

motivation, creativity, listening, and conflict resolution. In addition, students often complete basic or advanced management courses without learning about creating SMART (Specific, Measurable, Achievable, Relevant, and Time-based) goals, strategic plans, marketing plans, advocacy campaign proposals, or a project charter. In the absence of these real-life workplace skills, many LIS students remain poorly prepared for leadership and managerial roles. Therefore, it is important for educators to engage students by designing complex and challenging learning activities that are applicable to real-life work situations. It is also important that the courses be taught by full-time faculty and practitioners so that there is a balanced mix of theory and practice.

Assessment

Assessment is a systematic and continuous process in higher education that gathers, analyzes, and interprets empirical data (direct and indirect evidence) on student learning to improve courses and programs. While many LIS programs require students to complete capstone e-portfolios at the end of their program, it would be more helpful to develop a holistic approach in understanding the role of foundation and/or elective management/leadership courses in developing students' leadership potential. How are other courses helpful in evolving students' leadership strengths and abilities? Do students have the opportunity to express and share their reflections on course learning activities? If collaborative projects are utilized, do they provide students with opportunities for team peer evaluation? Do internship opportunities help evolve or sharpen students' leadership strengths and potential? Similarly, the role of an independent study or master's thesis could be evaluated in understanding their effectiveness in students' leadership growth and development. Does a program have a systematic mechanism for instructors to reflect on students' performance in a regular and consistent manner? These questions are simply the tip of the iceberg. While assessment is a time-consuming process, it is important to design the assessment process in a way that measures students' leadership potential through several measures at both the course level (instructors, students) and the program level.

Application of the CPA framework in preparing leaders in two LIS programs

LIS education is very much contextualized to meet the needs of the society in which its students will serve. Also, there is great variety in how LIS education is organized and coordinated. It is therefore interesting to see how the proposed framework for leadership education is present in LIS education in different parts of the world. Is the framework general enough to serve different needs for leadership skills in different regions? We will therefore study how the leadership framework is present in one Finnish and one US program that educate library and information professionals.

The role of professional associations in cultivating leadership skills in LIS professionals

The IFLA's *Guidelines for Professional Library/Information Educational Programs* emphasizes that LIS programs need to adapt to the wide scale and rapid change currently gripping the

profession and brought on by the revolutionary power of the Internet. They stress nurturing transferable skills, including communication and collaboration, as a principle of any curriculum (IFLA, 2012). The G2 Guidelines, which detail the 11 core elements that should be included in any program, explicitly reference the need for leadership and management training in element 9: Management of Information Agencies (IFLA, 2012).

The American Library Association (ALA) has an entire division devoted to the topic: the Library Leadership & Management Association (LLAMA). Among the various communities within LLAMA are groups focused on assessment as well as management and leadership. Along with webinars and online courses offered by LLAMA, these communities are an important research tool for those seeking both practical and theoretical information (LLAMA, 2019).

A number of organizations also offer leadership programs for working professionals. The Association of Research Libraries' (ARL) "Leadership and Career Development Program" (LCDP) in the United States, "The Northern Exposure to Leadership" in Canada, and the Aurora Foundation's "Institute for Emerging Leaders" in Australia, New Zealand, Southeast Asia, and the Pacific all demonstrate the global desire to foster management skills within librarians (Kumaran, 2012, p. 151–153).

There is no common European approach to LIS education and few experiences of international collaboration for developing degrees in the area (Borrego, 2015). A need for clear European LIS education policies has been addressed, and even updated web presentations of different programs in English would be a good start. An exchange of information about different programs is important to achieve active collaboration, comparison of curricula, and an increased transparency for LIS education in Europe (Juznic & Badovinac, 2005). This is important to remember when presenting one approach to leadership education in the information science field; it is a representation of only one country, which might differ from other European practices quite dramatically. Still, we see this presentation as an important contribution to the overall awareness and discussion of how leadership can be addressed, and we thus hope to raise an understanding of different approaches to the topic.

Two examples

As LIS education has deep roots in both Finland and the United States, we demonstrate how two LIS programs utilize the CPA framework in preparing prospective leaders. The Master's program in Governance of Digitalization (GoD) from Åbo Akademi University (ÅAU), Finland, prepares students for leadership positions in digitalization. The program is a collaboration with Information Studies (LIS) and Information Systems (business education). In this article we focus mainly on the courses given by the Information Studies subject as it is part of the LIS education at ÅAU. Still, the courses offered by Information Systems are very much relevant for future library leaders learning about new business models, digital services, and analytics. The program is a two-year master's degree program (120 ECTS in total). Similarly, the advanced Certificate in Management for Information Professionals (CMIP) at St. John's University in the United States focuses on developing the leadership potential of mid-level information professionals and Master of Science in Library and Information Science (MSLIS) students. The CMIP program is a 12-credit online program

and can be completed as a stand-alone degree or concurrently with the MSLIS program. Thus, the overall goal is not to compare these two programs but to present an intentional and holistic approach to guide, review, and impart leadership education in LIS programs.

From [Table 1](#) we can see that the two program examples cover all three perspectives in our proposed framework ([Figure 1](#)), but in different ways. The GoD program addresses

Table 1: Case curriculums and how leadership is addressed according to the framework in Figure 1

	GoD, Åbo Akademi University (Finland)	CMIP, St. John's University (United States)
Curriculum	<ul style="list-style-type: none"> Focus on the management of digital processes. The LIS modules include perspectives on <ul style="list-style-type: none"> Information and knowledge management Information behavior Management of information services Information architecture and strategies The program is a collaboration with Information Systems, with one module on analytics, and one on IT governance, where leadership specifically in relation to IT projects is focused. 	<ul style="list-style-type: none"> Designed for mid-level information professionals and MSLIS students Focuses on developing students' leadership potential with consideration of social justice, responsibility, and ethics Includes courses on: <ul style="list-style-type: none"> management of information organizations project management in information organizations marketing and advocacy of information organizations knowledge management in information organizations
Pedagogy	<ul style="list-style-type: none"> Leadership is part of several courses and not a separate topic. It is addressed in relation to different activities of an organization, while relevant theories and research are presented. Leadership is put into practice through project work and seminars, with a peer-to-peer learning approach, and where the students are made aware of the importance of observing leadership skills to be able to better develop these skills. 	<ul style="list-style-type: none"> Focuses on developing students' leadership potential through various learning activities in all of its courses. Makes effort to provide a balance of theory and practice Learning activities require students to demonstrate their leadership skills in: problem solving with case studies on a variety of management topics; creating a variety of highly relevant artifacts, including but not limited to a strategic plan, marketing plan, project charter, knowledge management action plan, advocacy campaign proposal, change management plan, etc.; leading and managing semester-long collaborative projects

(Continued)

	GoD, Åbo Akademi University (Finland)	CMIP, St. John's University (United States)
Assessment	<p>The students work in various individual and collaborative projects. Their leadership skills are evaluated through several measures:</p> <ul style="list-style-type: none"> • on an individual level as students document their learning reflections as a leader and a team member of the group; students are also provided opportunities to share their learning reflections on major course assignments and projects; • through peer evaluation, students also evaluate their peers' work in collaborative projects; • teachers provide feedback on students' learning activities and presentations throughout the course; • there is also a program-level assessment (Assurance of Learning) with rubrics and evaluation criteria, which is part of an ongoing accreditation process. 	<p>Three approaches:</p> <p>Instructor's assessment</p> <ul style="list-style-type: none"> • utilizes specific rubrics and evaluation criteria for assessing student learning through a combination of case-study discussions, individual and semester-long collaborative projects, team peer evaluations, presentations, and learning reflections; • provides feedback on students' learning activities throughout the semester; • evaluates students' leadership skills in problem solving, strategic planning, collaboration, managing projects, marketing and advocacy, budgeting, communication, etc.; • requires instructors to assess students' performance on one of the major learning activities addressing most important outcomes of their course through "Course Artifact Assessment" on a periodical basis. <p>Students' assessment</p> <ul style="list-style-type: none"> • evaluates peers' contributions on collaborative projects; • reflects on major course learning activities, including end-of-semester course reflections; • evaluates students' learning and instructor's pedagogy on several parameters through university's course evaluation instrument. <p>Program-level assessment</p> <ul style="list-style-type: none"> • evaluates the overall effectiveness of the entire CMIP program; • utilizes instructor's "Course Artifact Assessment," students' "Course Evaluation," and other relevant data from each course; • prepares a program-level assessment report for various stakeholders (e.g., advisory board, university, etc.)

leadership as part of courses focusing on digital processes. A deeper understanding of leadership theories is therefore lacking. The leadership perspective is more on a practical level, training students in actually leading teamwork and reflecting on leader versus team member roles. A challenge is that there are very many aspects and dimensions that must be included in the program, which then affects the possibility to focus more in depth. Also, the program doesn't educate only library professionals but also experts on governance of digitalization for the private and public sector at large, and it is not possible to frame the leadership perspective to one particular organization. At the same time, this approach provides a broader skill set for the students' future careers.

The CMIP program enhances students' leadership skills and expertise in developing and managing strategic partnerships, collaborations, projects, knowledge bases, and new initiatives for a changing work environment. The emphasis is on developing students' leadership potential by providing a solid background in leadership theory and practice. This approach helps students develop their skill sets in examining and applying the strategies, processes, and practices used by information organizations and managers to leverage human resources effectively and efficiently. However, more efforts are required to cultivate students' soft skills (e.g., communication, teamwork, negotiation, etc.). While anecdotal and unsolicited feedback from students suggests that they are appreciative of the course work and learning activities that help them refine their soft skills mentioned, a more rigorous and systematic approach would be immensely helpful in capturing such data. Nevertheless, the current approach is quite effective in equipping students with leadership skills and knowledge for various types of information organizations.

Considering the differences in terms of standardized curriculum development in Europe and the United States also affects the program outlines and contents. There is no standardized curriculum for the LIS education in a European context, and different LIS-related programs are more affected by the university and faculty context than a common discussion about what an LIS professional should learn. The GoD program is part of the Business School at Åbo Akademi University, and as a result the program profile has a strong business approach. Still, the program is also highly relevant for future library and information professionals while the courses are covering information processes, both individual and organizational (e.g., information behavior, information retrieval, information and knowledge management, information architecture, and management of digital services). Students studying in the GoD program have already received a bachelor's degree in either business or LIS, giving them professional skills from specific organizational contexts.

In keeping with the ALA accreditation requirements, most of the LIS programs in the United States require students to take a mandatory management course as part of their curriculum. However, in spite of seemingly similar content of the required management course, there exist variations in instructors' pedagogical style across various LIS programs. In addition, many LIS programs do not offer advanced management courses in the areas of project management, knowledge management, marketing, human resources management, financial management, and so on, on a regular basis. As a result, there is a lack of a consistent and standardized approach in developing students' leadership skills across various

LIS programs. However, a small number of LIS programs, including the CMIP program at St. John's University, fills the void by preparing students for various leadership roles and positions.

As developing leadership is a life-long learning journey, it is important to understand that no graduate program can entirely equip students with the aspirational qualities suggested in the previous sections. Therefore, it is necessary that LIS programs provide additional opportunities to develop and refine students' leadership skills. For example, the student association in the MSLIS program at St. John's provides students additional avenues to sharpen their leadership potential by serving on the board, inviting guest presenters, and organizing webinars throughout the year. Additionally, they have opportunities to participate in internships and academic-service learning experiences, and present at regional and national conferences. In the GoD program an important connection to leadership in practice are the alumni events with presentations by business leaders on current topics, organized by the business school. It is therefore important that LIS programs are intentional and holistic in their approach to creating opportunities for leadership growth and development throughout their curriculum.

To summarize, both programs address leadership as an important aspect, but they encounter challenges in covering all the perspectives addressed in the framework of leadership topics for future LIS leaders. Some challenges relate to finding a balance in how much leadership theories versus leadership practice should be included. Educating professionals for various organizations also makes it challenging to contextualize leadership training in practice. For example, in the GoD program it is not possible to focus explicitly on library context, although it can be one relevant context. The CMIP program focuses on developing students' leadership skills for various types of information organizations, including libraries, archives, business and legal organizations, for-profits, and non-profits. Although the CMIP program is effective in developing relevant leadership skills for information organizations, the online nature of the program puts some constraints on cultivating soft skills beyond a certain extent. Asynchronous courses lack the element of peer pressure found in face-to-face or live web meetings, limiting the students' abilities to sharpen their presentation skills. In addition, the current institutional policies do not allow teachers to require synchronous presentation sessions, making it almost impossible to overcome this challenge. Similarly, because each CMIP course requires a semester-long collaborative project, the online nature of the program makes collaboration even more challenging than in blended and face-to-face class environments. In a similar vein, while MSLIS curriculum provides students many opportunities to take courses in cultural competence, social justice, and diversity, it is quite difficult to put a similar level of emphasis on developing intercultural skills in the CMIP program. As a result, more efforts are required to overcome these challenges in curriculum.

Discussion and implications

The overall goal of this article was to develop an understanding of the common leadership themes in the LIS literature on preparing leaders for information organizations, the approaches of LIS programs in educating and preparing future leaders for information

organizations, and the ways in which LIS programs can utilize a holistic framework in preparing future leaders.

While the LIS literature reflects a number of aspirational leadership qualities and attributes in information professionals, there is no dispute that it is important to emphasize and develop visionary, creative, and adaptive leadership (Ammons-Stephens et al. 2009; Riggs 2008). In keeping with this approach, both programs discussed above provide leadership skills in identifying, analyzing, and solving complex management-level problems and how these are communicated professionally and in an international context. It is interesting to see that in spite of some differences in their curriculum and pedagogical approaches, both of these programs make concerted efforts to provide a balance of theory and practice through various learning activities that require students to demonstrate a blend of creativity, collaboration, negotiation of ideas, and reflections of their own leadership learning. Furthermore, these programs put deliberate efforts in assessing students' leadership potential at the course level, program level, and in conjunction with LIS leaders and practitioners.

The presentation of these two programs also highlights that the building of leadership skills for future information professionals is contextual and dependent on stakeholders' needs and demands. Therefore, it would be unrealistic to assume or expect a universal framework in preparing future leaders for the information profession. However, the framework presented in this article presents one of many approaches that could be utilized in mapping leadership education in a holistic manner. While we have addressed leadership preparation in two LIS programs in Finland and the United States, they do not represent the microcosm of other LIS programs in their respective countries or geographical continents. Still, this framework can be helpful for other LIS programs in conceptualizing a bigger picture of their programs. By identifying their strengths, weaknesses, and opportunities in curriculum content, pedagogical, and assessment approaches, they can better prepare future leaders in information organizations. This framework offers several implications for leadership preparation in a global information context. For instance, LIS program administrators can use the framework in evaluating curriculum content by reflecting on how their program addresses leadership knowledge and skill. To what extent is this knowledge integrated throughout all the courses? To what extent do their courses and internship experiences help evolve students' leadership potential (Capper et al., 2006)? LIS educators can also use this framework to guide the assessment of their pedagogical approaches. Are the instructional methods adequate for developing leadership knowledge and skill development? In terms of assessment, questions to evaluate leadership potential can include the following: How are we measuring the leadership knowledge and skills of prospective leaders in our program? What data do we have to show that a particular course in the program, set of courses, or an entire program has increased the leadership knowledge and skills of students in a global information context (Capper et al., 2006)?

While it is obvious that lifelong learning is a crucial cornerstone of the LIS profession, the CPA framework can provide a deeper grounding of what it means to prepare leaders in a global information context and can support the ability of future LIS professionals to lead and manage organizational activities. This study demonstrates how LIS programs can utilize this framework in developing an intentional and holistic approach to guide, review, and impart leadership education to their students.

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