



## **The Discipline of Information Studies in Nigerian Universities: Proposal for Unbundling Viable Independent Academic Programmes for the Knowledge Economy**

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### **ABSTRACT**

*The need to advance the education and training of librarians, information professionals, and knowledge managers in the era of the knowledge economy, the fourth industrial revolution (4IR) and the emerging fifth industrial revolution (5IR) is the justification for this article. With variations in nomenclature across the universe like library and information science (LIS), information studies, information science, information management, information and knowledge management, and now knowledge science, the fact in Nigeria remains that education and training targeted at producing core and market-ready information professionals in the afore-stated areas is in endangered position. The perceived abandonment of the 2020 report of the Nigerian Association of LIS Educators (NALISE) curriculum committee and the uncoordinated balkanization of information management programmes as seen in the Core Curriculum and Minimum Academic Standards (CCMAS) by the National Universities Commission (NUC) led to this scholarly piece that developed curriculum for bachelor of science degrees in viable independent academic programmes (LIS; Archives, Records and Information Management; Knowledge Management; Publishing and Digital Technology) that would fit into the proposed discipline/faculty of information studies in Nigerian universities. It is expected that this curriculum development will spur thoughts and perspectives, and possibly serve as a roadmap that will drive and facilitate the actualization of a discipline/faculty of information studies in Nigerian universities.*

**Keywords:** Discipline/Faculty of Information Studies; Library and Information Science; Archives, Records and Information Management; Knowledge Management; Publishing and Digital Technology,

### **INTRODUCTION**

In this era of the knowledge economy, the fourth industrial revolution (4IR) and emerging fifth industrial revolution (5IR), there appears to be a significant level of disconnection between the nature of education and training for library and information science (LIS) in Nigeria on one hand, and the actual practice on the other hand. The curriculum, course contents, essential infrastructure, method of delivery and requisite human resources are all involved serving as impediments to the actualization of core objectives and expected learning outcomes of education and training in Nigeria. Education and training in the knowledge economy require producing digitally skilled and technologically-driven graduates as critical thinkers who solve complex world problems. What this means is that personalized project-based learning with real-world applications, adoption of learning from successful case studies, implementing lifelong learning

strategies, engaging in continuous networking and collaborations, fostering learning curiosity and explorations, and full integration of technological enablers are inevitable for result-oriented education and training in the knowledge economy (FasterCapital, 2024; Uzoagu, 2022). These aligned with four pillars of the knowledge economy which are education and training, information infrastructure, economic incentives and innovation systems that drive technology-based knowledge creation and utilization practices (Choong & Leung, 2022; Zeb, 2022; Kefela, 2010).

In their study involving alumni from all LIS schools in Nigeria, Ajani, Dunmade, Tella and Adeniran (2022) noted that the participants (i.e. the alumni) are fully aware of the exerting influence of technologies of the 4IR and by extension, the emerging 5IR, decried the poor preparation of information professionals with inadequate skills due to lack of motivation for trainers, absence of synergy between LIS schools and the industry, as well as inadequacy of qualified personnel, and made case for a fundamental but holistic curriculum that addresses the demands of the fourth and fifth industrial revolutions. Most importantly, the curriculum and course contents of many LIS programmes in Nigerian universities run contrary to the urgent need for training librarians and information professionals for the 4IR and emerging 5IR era. Thus, according to Rahmah (2020), the career of librarians and information professionals in the 4IR and by extension 5IR needs a rapid response to practical applications of digital technologies including artificial intelligence, big data, Internet of Things, cloud-based services, and other emerging technologies in the curriculum for education and training. Hussain (2020) adds that surviving the tsunami of the 4IR and emerging 5IR by libraries and librarians demands for mindset shift, holistic connection with emerging technologies, and the developing of robust digital skills, including those of trainee information professionals. Undoubtedly, central to addressing the afore-stated realities is the overhauling of curriculum for education and training and the development of emerging areas in the information profession that align with realities of the knowledge economy.

Be that as it may, the need to advance the course of education and training for LIS practitioners in Nigeria necessitated the content of this article. Tella (2020) urged African LIS schools to rebrand and repackage their curriculum for training graduates that will fit into the job and entrepreneurial demands of the 4IR and 5IR taking into consideration emerging technologies, digital applications and in-demand skills. Specifically, Nigerian LIS schools require an upgrade of their programmes for the production of skilled graduates for the digital knowledge economy (Abubakar, 2021). The 4IR and emerging 5IR also demand for digital scholarship knowledge and skills among librarians which can be acquired through education, workshops and on-the-job training courses via LIS school programmes (Sibiya, 2023). These are justifications that LIS schools have the key responsibility in driving the training of librarians and information professionals for relevance in the era of 4IR and 5IR.

Meanwhile, with variations in nomenclature across the universe like library and information science (LIS), information studies, information science, information management, information and knowledge management, and now the emergence of knowledge science, the fact in Nigeria remains that education and training targeted at producing professional and market-ready librarians, competent entrepreneurial information practitioners and productive knowledge managers is in an endangered position. With the earlier release and launching of the Core Curriculum and Minimum Academic Standards (CCMAS) in December 2022 by the National Universities Commission (NUC) of Nigeria that placed LIS under the Discipline/Faculty of Education, this means an attempt to submerge a profession (LIS) under another profession

(education), thereby coercing LIS to award bachelor of education degree (B.Ed) to her graduates. Not only that, there are allied LIS programmes scattered in different disciplines like B.Sc Information Resources Management (IRM) and B.Sc Petroleum Information Management (PIM) degrees under the Discipline/Faculty of Administration and Management, as well as Bachelor of Health Information Management (HIM) degree under the Discipline/Faculty of Allied Health Sciences, all in the CCMAS. These are anomalies that need urgent attention through the development of the discipline/faculty of information studies and its viable independent academic programmes as academic departments. This is necessary for harmonization of the information management disciplines under one umbrella, so as to halt future unnecessary balkanizations of the discipline by non-professionals in the information management sub-sector.

The interesting development with the launching of CCMAS was the unbundling of Mass Communication and Computer Science programmes into disciplines with allied independent programmes. Thus, the NUC unbundled mass communication into the following nine (9) academic programmes: BSc Advertising, BSc Broadcasting, BSc Development Communication Studies, BSc Film and Multimedia, BSc Information and Media Studies, BSc Journalism and Media Studies, BSc Mass Communication, BSc Public Relations, and BSc Strategic Communication, under the broad discipline/faculty of communication and media studies. The NUC also unbundled computer science into six (7) academic programmes as follows: BSc Computer Science, BSc Cybersecurity, BSc Data Science, BSc Information and Communication Technology, BSc Information Systems, BSc Information Technology, and BSc Software Engineering, under the broad discipline/faculty of computing. One thing unique with the unbundling of mass communication and computer science is that despite developing the sub-areas of the disciplines into academic programmes, the major areas still remain as one of the emerged programmes (i.e. BSc Mass Communication and BSc Computer Science). This is not unconnected with the fact that the mother programmes remain critical in the labour market and would serve as the foundation for the gradual development of the emerged new programmes. These are indicators to the fact that viable allied areas of information studies operating under LIS requires development in line with the demands and realities of the digital knowledge economy.

Furthermore, with the recent publication of updated version of the CCMAS for the Discipline/Faculty of Social Sciences in August, 2023 that captured BSc Library and Information Science (LIS), stakeholders in the LIS profession in Nigeria should not imagine that contending issues associated with the discipline have been addressed. The first observations is that the process just commenced, with having two different undergraduate degree programmes involving LIS with different missions in different disciplines in the CCMAS, i.e. B.Ed LIS and BSc LIS. What this implies is that B.Ed LIS (under CCMAS for Education) is targeted at training teacher-librarians or school librarians (school library media specialists) that would be responsible for teaching media literacy, information literacy skills, library-use skills, reading culture as well as delivering library and information services to stakeholders in nursery, primary and secondary schools. On the other hand, the BSc LIS (under CCMAS for Social Sciences) will focus on training librarians and information management professionals for other sectors of the society, including higher education institutions, ministries, departments and agencies of government, and corporate establishments. However, one strategic point to note here is that it was as a result of the expressed concerns by various LIS professionals and the concerted effort of stakeholders in the LIS profession that led to the actualization of the BSc LIS in the CCMAS for Social Sciences. The second observation should be what happens to the sub-areas of LIS that are already full-fledged academic programmes in other climes with viable opportunities. Be that as it may, the fact still remains that BSc LIS has not addressed the obvious realities and contending issues of

the information discipline in this era of knowledge economy as well as fourth and fifth industrial revolutions. Rather, pursuing the discipline of information studies that has matured over two decades ago leading to the actualization of CCMAS for Information Studies in Nigerian universities is the way forward, which this paper addresses.

### **Multidisciplinary Nature of Library and Information Science and the Case for Unbundling in Nigerian Universities**

Library and Information Science (LIS) is a multidisciplinary field involved in the management of information and knowledge for the benefit of members of the society. The process involved in managing information and knowledge cuts across creation, acquisition, organization, preservation, dissemination, utilization and applications, in different areas of life, such as health, business, education, agriculture, economy, politics, environment, and other allied sectors of the society. Thus, the multidisciplinary nature of LIS is well-established globally as sub-areas like health information management, business information management, agricultural information management, and the likes are easily seen via google search as academic programmes in universities across the universe. Some of the programmes may have modified nomenclature depending on universities and the country of domicile but the overall programme objectives and expected learning outcomes remain the same. Nigeria should follow suit.

The concept of unbundling refers to breaking into parts or balkanization into independent but related areas. There are justifications for unbundling an existing field of study. Unbundling takes place when viability of emerging programmes in terms of jobs and career opportunities is obvious. Unbundling leads to exploring and taking full advantage of the numerous opportunities in all the sub-areas of the multidisciplinary field. It would expose trainees in the various independent academic programmes to innovative and emerging areas in their sub-fields that have not been explored, thereby leading to practical exposure to the nitty-gritty of the various sub-areas. The unbundling of LIS promises holistic training in the various academic programmes, so as to strategically take overall advantage of all specific and special areas of the discipline. As part of the move towards unbundling, the Nigerian Association of Library and Information Science Educators (NALISE) formed a committee in 2019 during the association's national conference and annual general meeting at Ignatius Ajuru University of Education, Port Harcourt, Nigeria, to look into issues of nomenclature, relocation of LIS programmes to a separate faculty and other related matters. This happened over two years ago before the unveiling of CCMAS.

### **Reference to the Report of NALISE Nomenclature and Curriculum Committee of 2019/2020**

During the 22<sup>nd</sup> National Conference and Annual General Meeting of the Nigerian Association of Library and Information Science Educators (NALISE) held at Ignatius Ajuru University of Education, Port Harcourt, Rivers State, from 9<sup>th</sup> – 16<sup>th</sup> September, 2019, a committee was constituted on the nomenclature and location of LIS in universities with the following members:

1. Professor Zakari Mohammed, Department of Library and Information Science, Ahmadu Bello University, Zaria, Nigeria (Chairman)
2. Professor Innocent I. Ekoja, Department of Library and Information Science, University of Abuja, Abuja, Nigeria

3. Professor Rosaline O. Opeke, (late) Department of Information Resources Management, Babcock University, Ilishan-Remo, Nigeria
4. Professor Emmanuel M.K. Dawha, Department of Library and Information Science, University of Maiduguri, Maiduguri, Nigeria
5. Professor K. I. N. Nwalo, Department of Library, Archival and Information Studies, University of Ibadan, Ibadan, Nigeria
6. Dr. G.A. Babalola, Department of Library and Information Technology, Federal University of Technology, Minna, Nigeria
7. Dr. Basil O. Edom, Department of Library and Information Science, Imo State University, Owerri, Nigeria
8. Dr. Juliet C. Alex-Nmecha, Department of Library and Information Science, University of Port Harcourt, Port Harcourt, Nigeria
9. Dr. Kingsley N. Igwe, then of the Department of Library and Information Science, Akanu Ibiam Federal Polytechnic, Unwana, Afikpo, Ebonyi State, Nigeria (Secretary).

The Terms of Reference (TOR) given to the Committee were:

- I. Determine the appropriate, modern and acceptable nomenclature for LIS schools in Nigeria.
- II. Suggest the appropriate Faculty for the location of LIS Departments.
- III. Suggest, if considered appropriate and feasible, the name of a separate Faculty for the LIS Departments.
- IV. Make suggestions on any other related matter of interest to the LIS profession. As part of this TOR IV, the committee added expansion/creation of additional bachelor's degree programmes/ academic departments.

The committee called for memoranda and received the same from various LIS schools and senior colleagues in the profession across Nigeria. One thing spectacular with the submissions was the case for faculty (discipline) status and unbundling of LIS into new academic programmes. On September 3, 2020, the committee submitted her report with the following resolutions in line with the respective TOR.

- TOR I: Department of Library and Information Science.
- TOR II: Departments of LIS in Nigerian universities to remain in the faculty where they are pending the actualization of faculty status for the multidisciplinary field.
- TOR III: Faculty of Information Studies.
- TOR IV: Creation of New Academic Programmes/Departments for the Proposed Faculty of Information Studies:
  - Department of Library and Information Science
  - Department of Information Science
  - Department of Archives, Records and Information Management;
  - Department of Knowledge Management;
  - Department of Publishing Studies;
  - Department of Health Information Management

The Committee recommended that another separate expanded committee should be set up with enlarged membership that cut across all stakeholders of the field (educators, practicing librarians, inforpreneurs, knowledge managers, publishers, professional associations like Nigerian Library Association, etc) that will develop curriculum for the new independent academic programmes/departments. Membership of this committee should also include some practitioners in the corporate sector playing active roles in information and knowledge management practices.



## **Proposed Discipline/Faculty of Information Studies and Development of Sample Curriculum for Viable Independent Academic Programme**

The sample curriculum developed here is for the identified viable independent academic programmes as contained in the report of the NALISE Committee (2020). With reference to the recommendations in the committee's report, programmes like Health Information Management (HIM) quickly received attention as the author developed and published a holistic curriculum for a 4-year BSc Health Information Management or BSc Health Information Science (Igwe, 2022). This was as a result of the author's involvement as a principal officer in pioneering a university of health sciences in Nigeria, knowing fully well that there is an established career structure for HIM practitioners in Nigerian teaching hospitals and other healthcare facilities, but no official curriculum for HIM programme in Nigerian universities. Furthermore, the arrival of CCMAS for Allied Health Sciences that captured Bachelor of HIM programme as a 5-year programme is a welcome development. This is in addition to other new programmes such as BSc Information Systems, BSc Information Technology and BSc Data Science that are already in the CCMAS for Computing, as well as BSc Information and Media Studies in the CCMAS for Communication and Media Studies, that made it difficult for a clear-cut justification for the development of a BSc Information Science programme as recommended by the committee.

Be that as it may and as it stands at present, the following are the remaining viable independent academic programmes that would constitute the Discipline/Faculty of Information Studies in Nigerian universities:

1. B,Sc. Library and Information Science (LIS)
2. BSc. Archives, Records and Information Management (RIM)
3. BSc. Knowledge Management (KMT)
4. BSc. Publishing and Digital Technology (PDT)

The BSc Health Information Science or B.HIM can equally be part of the discipline. It should be noted that the general courses for all the programmes are designated with IST meaning Information Studies, whereas other courses bear codes specific to the respective programmes. There are general points to note concerning coding of the courses. The emphasis in coding the courses is on first and last digits of course codes. The first digit represents the level of study, whereas the last digit represents either the first semester (odd numbers) or the second semester (even numbers). The course codes having last digits as odd numbers are for first the semester courses, whereas other course codes having last digits as even numbers are for the second semester. In all the course codes, there is no significance attached to the middle digits.

**Table 1. Compulsory Courses for All Programmes in the Discipline/Faculty of Information Studies (IST)**

	Course Code	Course Title	Units	Status
<b>100 Level (First Semester)</b>				
	IST 101	Information Professions in the Knowledge Economy	2	C
	IST 103	Introduction to Information Literacy	2	C
	IST 105	Digital Technologies and Applications I	2	C
<b>100 Level (Second Semester)</b>				
	IST 102	Information, Society and Development	2	C
	IST 104	Libraries and Information Centres	2	C
	IST 106	Digital Technologies and Applications II	2	C
<b>200 Level (First Semester)</b>				
	IST 201	Collection Development and Management	2	C
	IST 203	Organization of Knowledge I	2	C
	IST 205	Computer Programming I	2	C
<b>200 Level (Second Semester)</b>				
	IST 202	Students Industrial Work Experience Scheme (SIWES) I	3	C
	IST 204	Organization of Knowledge II	2	C
	IST 206	Computer Programming II	2	C
	IST 208	Statistics for Information Studies	2	C
<b>300 Level (First Semester)</b>				
	IST 301	Research in Information Studies	2	C
	IST 303	Web Design and Development I	2	C
<b>300 Level (Second Semester)</b>				
	IST 302	Students Industrial Work Experience Scheme (SIWES) II	3	C
	IST 304	Data Analysis in Information Research	2	C
	IST 306	Web Design and Development II	2	C
<b>400 Level (First Semester)</b>				
	IST 401	Seminar on Issues and Themes in Information Studies	2	C
	IST 403	Information Products and Services	2	C
	IST 405	Information and Cyber Security	2	C
	IST 407	Content Development in the Digital World	2	C
	IST 409	Infopreneurship	2	C
<b>400 Level (Second Semester)</b>				
	IST 402	Startup Development and Small Business Management	2	C
	IST 404	Media and Information Literacy Programme	2	C
	IST 406	Leadership and Management in Information Centres	2	C
	IST 408	Volunteering, Freelancing, Remote Opportunities and 21 <sup>st</sup> Century Skills	1	C

Table 1 contains the compulsory courses for all programmes in the discipline of information studies. There are salient issues that are associated with the discipline-wide courses that require elaboration. As a way of welcoming students into the information professions, these freshers need to be intimated with what information professions entail, the developments that led to the knowledge economy, the overview of fourth and fifth industrial revolutions (4IR & 5IR), and the expectations of prospective information professionals in this era of 4IR and the emerging 5IR.

There is a deliberate attempt to enable the acquisition of practical digital skills by the students. This is premised on the fact that successful information practitioners in this era of 4IR and emerging 5IR must be digitally-compliant. This is the justification for integrating courses like digital technologies and applications I & II, fundamentals of computer programming I & II, web design and development I & II, content development in the digital world, information and cyber security, and the 21st-century skills, which are essential in the knowledge economy. It is worthwhile to have not only an introductory course on information literacy, but also another media and information literacy (MIL) course that is targeted at enhancing the capacity of the graduating students to be involved in the development and delivery of MIL programmes in all sectors of the society.

Another issue to note is the idea of having students' industrial work experience scheme (SIWES) I & II, which will take place during the end of the second and third years of study, respectively. The case of having the whole of a semester for industrial training for a four-year programme like LIS and other emerging independent academic programmes is not ideal, rather such option should be for programmes that are from 5-years and above. However, the preferred option for four-year programmes is to take advantage of the end of the academic session holidays for 200 and 300 levels for industrial training/SIWES. This is the way CCMAS programmed it in some disciplines like computing.

There are courses like statistics for information studies, research in information studies and data analysis in information research, which are compulsory courses that would enable the students to be conversant with the research process which involves data analysis. In addition, in the course of training these students that would fit into the knowledge economy, the curriculum is not unmindful of the need for the acquisition of practical knowledge related to developing startups, small business set-ups and managing same in the society. This is the reason for not only including infopreneurship as a discipline-wide course, but also adding information products and services, startup development and small business management. These are supported with knowledge of 21st-century skills and the applications, especially in volunteering, freelancing and exploration of remote opportunities in the digital world. On the whole, these are strategic discipline-wide courses that would drive the education and training of graduates that fits into the era of 4IR and emerging 5IR.



**Department of Library and Information Science**  
**B.Sc (Hons.) Library and Information Science**

**Table 2: Courses Leading to the Award of BSc in Library and Information Science (LIS)**

	<b>Course Code</b>	<b>Course Title</b>	<b>Units</b>	<b>Status</b>
<b>100 Level (First Semester)</b>				
	IST 101	Information Professions in the Knowledge Economy	2	C
	IST 103	Introduction to Information Literacy	2	C
	IST 105	Digital Technologies and Applications I	2	C
	LIS 101	Introduction to Library and Information Science	2	C
	KMT 101	Introduction to Knowledge Management	2	R
	PDT 101	Introduction to Publishing and Digital Technology	2	R
	RIM 101	Introduction to Archives, Records and Information Management	2	R
	LIS 103	Information Environment in Africa	2	C
<b>100 Level (Second Semester)</b>				
	IST 102	Information, Society and Development	2	C
	IST 104	Libraries and Information Centres	2	C
	IST 106	Digital Technologies and Applications II	2	C
	LIS 102	Information Users and Information Behaviour	2	C
	LIS 104	Rural Information Services for Development	2	C
	LIS 106	Information Ethics: Bibliography, Citation and Referencing	2	C
	LIS 108	Fundamentals of Media and Communication	2	C
	LIS 112	Introduction to Social Media and Information Networks	2	C
<b>200 Level (First Semester)</b>				
	IST 201	Collection Development and Management	2	C
	IST 203	Organization of Knowledge I	2	C
	IST 205	Computer Programming I	2	C
	LIS 201	Principles and Practice of Public Relations I	2	C
	LIS 203	Principles of Management I	2	C
	LIS 205	Digital Curation and Data Management I	2	C
	LIS 207	Introduction to Information Science	2	C
	LIS 209	Indigenous Knowledge and Multiculturalism in Nigeria	2	C
	LIS 211	Information Services for Children and Adolescents	2	C
	LIS 213	Fake News, Misinformation and Fact-Checking	2	C
<b>200 Level (Second Semester)</b>				
	IST 202	Students Industrial Work Experience Scheme (SIWES) I	3	C
	IST 204	Organization of Knowledge II	2	C
	IST 206	Computer Programming II	2	C
	IST 208	Statistics for Information Studies	2	C
	LIS 202	Principles and Practice of Public Relations II	2	C
	LIS 204	Principles of Management II	2	C
	LIS 206	Digital Curation and Data Management II	2	C
	LIS 208	Health Informatics	2	C

	LIS 212	Classification/Types of Libraries and Information Centres	2	C
	LIS 214	Library Automation (and Application Packages)	2	C
	LIS 216	Advocacy, Lobbying, Networking & Consortia Building	2	C
<b>300 Level (First Semester)</b>				
	IST 301	Research in Information Studies	2	C
	IST 303	Web Design and Development I	2	C
	LIS 301	Digital Curation and Data Management III	2	C
	LIS 303	Indexing and Abstracting	2	C
	LIS 305	Reference and Information Services	2	C
	LIS 307	Preservation of Information Resources	2	C
	LIS 309	Information Services for Special Groups (Underserved)	2	C
	LIS 311	Grey Literature, Serials and Government Publications	2	C
	LIS 313	Business Informatics	2	C
	LIS 315	Policy, Politics and Economics of Information	2	C
<b>300 Level (Second Semester)</b>				
	IST 302	Students Industrial Work Experience Scheme (SIWES) II	3	C
	IST 304	Data Analysis in Information Research	2	C
	IST 306	Web Design and Development II	2	C
	LIS 302	Digital Curation and Data Management IV	2	C
	LIS 304	Issues and Themes in Publishing	2	C
	LIS 306	Social Informatics	2	C
	LIS 308	Information Retrieval Systems	2	C
	LIS 312	Information Sources and Services in Subject Areas	2	C
	LIS 314	Technical and Readers' Services in Libraries	2	C
	LIS 316	Project Management for Information Professionals	2	C
<b>400 Level (First Semester)</b>				
	IST 401	Seminar on Issues and Themes in Information Studies	2	C
	IST 403	Information Products and Services	2	C
	IST 405	Information and Cyber Security	2	C
	IST 407	Content Development in the Digital World	2	C
	IST 409	Infopreneurship	2	C
	LIS 401	Developing and Managing Digital Libraries	2	C
	LIS 403	Open Science in Scholarly Communication	2	C
	LIS 405	Archives and Records Management	2	C
	LIS 407	Artificial Intelligence and Allied Emerging Technologies for Libraries I	2	C
	LIS 409	Legal & Ethical Issues in Library and Information Science	2	C
	LIS 411	Knowledge Management Practice	2	C
<b>400 Level (Second Semester)</b>				
	IST 402	Startup Development and Small Business Management	2	C
	IST 404	Media and Information Literacy Programme	2	C
	IST 406	Leadership and Management in Information Centres	2	C

IST 408	Volunteering, Freelancing, Remote Opportunities and 21 <sup>st</sup> Century Skills	1	C
LIS 402	Digital Transformation and Network Infrastructure for Libraries	2	C
LIS 404	Multimedia and Collaborative Technologies in Libraries	2	C
LIS 406	E-Learning in Library and Information Science	2	C
LIS 408	Artificial Intelligence and Allied Emerging Technologies for Libraries II	2	C
LIS 412	Research Project	6	C

Table 2 shows courses for training LIS graduates for the era of 4IR and emerging 5IR, which includes innovative courses like dimensions of informatics (business, health and social), digital curation and data management I-IV, artificial intelligence and allied emerging technologies I&II, multimedia and collaborative technologies, open science in scholarly communication, e-learning in LIS, among others.

**Department of Archives, Records and Information Management**  
***B.Sc (Hons.) Archives, Records and Information Management***

***Table 3: Courses Leading to the Award of BSc in Archives, Records and Information Management (RIM)***

Course Code	Course Title	Units	Status
<b>100 Level (First Semester)</b>			
IST 101	Information Professions in the Knowledge Economy	2	C
IST 103	Introduction to Information Literacy	2	C
IST 105	Digital Technologies and Applications I	2	C
RIM 101	Introduction to Archives, Records and Information Management	2	C
LIS 101	Introduction to Library and Information Science	2	R
KMT 101	Introduction to Knowledge Management	2	R
PDT 101	Introduction to Publishing and Digital Technology	2	R
RIM 103	Principles and Practice of Public Relations I	2	C
RIM 105	Principles of Management I	2	C
<b>100 Level (Second Semester)</b>			
IST 102	Information, Society and Development	2	C
IST 104	Libraries and Information Centres	2	C
IST 106	Digital Technologies and Applications II	2	C
RIM 102	Records, Archives, History and Society	2	C
RIM 104	Principles and Practice of Public Relations II	2	C
RIM 106	Principles of Management II	2	C
RIM 108	Elements of Reprography and Videography	2	C
RIM 112	Fundamentals of Media and Communication	2	C
<b>200 Level (First Semester)</b>			
IST 201	Collection Development and Management	2	C
IST 203	Organization of Knowledge I	2	C
IST 205	Computer Programming I	2	C

	RIM 201	Records Management I	2	C
	RIM 203	<b>Management of Archives and Manuscripts</b>	2	C
	RIM 205	<b>Indigenous Knowledge and Multiculturalism in Nigeria</b>	2	C
	RIM 207	<b>Educational Records and Educational Informatics</b>	2	C
	RIM 209	<b>Digital Curation and Data Management I</b>	2	C
<b>200 Level (Second Semester)</b>				
	IST 202	Students Industrial Work Experience Scheme (SIWES) I	3	C
	IST 204	Organization of Knowledge II	2	C
	IST 206	Computer Programming II	2	C
	IST 208	Statistics for Information Studies	2	C
	RIM 202	Records Management II	2	C
	RIM 204	Preservation of Records and Information Resources	2	C
	RIM 206	Legal Records and Legal Informatics	2	C
	RIM 208	Agricultural Records and Agricultural Informatics	2	C
	RIM 212	Digital Curation and Data Management II	2	C
<b>300 Level (First Semester)</b>				
	IST 301	Research in Information Studies	2	C
	IST 303	Web Design and Development I	2	C
	RIM 301	Fundamentals of Information Management I (Resource Creation and Development)	2	C
	RIM 303	Electronic Records Management I	2	C
	RIM 305	Digital Curation and Data Management III	2	C
	RIM 307	Management of Registries and Audio-Visual Archives	2	C
	RIM 309	Health Records and Health Informatics	2	C
	RIM 311	E-Government and E-Governance	2	C
<b>300 Level (Second Semester)</b>				
	IST 302	Students Industrial Work Experience Scheme (SIWES) II	3	C
	IST 304	Data Analysis in Information Research	2	C
	IST 306	Web Design and Development II	2	C
	RIM 302	Fundamentals of Information Management II (Organization of Knowledge)	2	C
	RIM 304	Electronic Records Management II	2	C
	RIM 306	Digital Curation and Data Management IV	2	C
	RIM 308	Business Records and Business Informatics	2	C
	RIM 312	Policy, Politics and Economics of Information	2	C
	RIM 314	Artificial Intelligence and Allied Emerging Technologies	2	C
<b>400 Level (First Semester)</b>				
	IST 401	Seminar on Issues and Themes in Information Studies	2	C
	IST 403	Information Products and Services	2	C
	IST 405	Information and Cyber Security	2	C
	IST 407	Content Development in the Digital World	2	C
	IST 409	Infopreneurship	2	C
	RIM 401	Fundamentals of Information Management III	2	C

		(Digitization and Digital Preservation)		
	RIM 403	Museums Management: Cultural Heritage, Galleries and Exhibitions	2	C
	RIM 405	Managing Government and Public Sector Records	2	C
	RIM 407	Corporate Records and Digital Transformation in Organizations	2	C
	RIM 409	Freedom of Information Act and Organizations in Nigeria	2	C
	RIM 411	Knowledge Management Practice	2	C
<b>400 Level (Second Semester)</b>				
	IST 402	Startup Development and Small Business Management	2	C
	IST 404	Media and Information Literacy Programme	2	C
	IST 406	Leadership and Management in Information Centres	2	C
	IST 408	Volunteering, Freelancing, Remote Opportunities and 21 <sup>st</sup> Century Skills	1	C
	RIM 402	Fundamentals of Information Management IV (Retrieval Systems, Dissemination and Utilization)	2	C
	RIM 404	Managing Archival Agencies and Records Centres	2	C
	RIM 406	Legal and Ethical Issues in Archives, Records and Information Management	2	C
	RIM 408	Emerging Technologies for Archives, Records and Information Management	2	C
	RIM 412	Research Project	6	C

The issue of managing archives, records and information in the world is demanding coordinated attention with digital skills and technologies. The contents of Table 3 present ideal courses like managing e-records, dimensions of informatics (health, agriculture, legal, education, social, etc), digital curation and data management I-IV, artificial intelligence and allied emerging technologies, e-governance, and allied courses for training 21st-century experts in archives, records and information management.

**Department of Knowledge Management**  
***B.Sc (Hons.) Knowledge Management***

**Table 4: Courses Leading to the Award of BSc in Knowledge Management (KMT)**

	Course Code	Course Title	Units	Status
<b>100 Level (First Semester)</b>				
	IST 101	Information Professions in the Knowledge Economy	2	C
	IST 103	Introduction to Information Literacy	2	C
	IST 105	Digital Technologies and Applications I	2	C
	KMT 101	Introduction to Knowledge Management	2	C
	LIS 101	Introduction to Library and Information Science	2	R
	PDT 101	Introduction to Publishing and Digital Technology	2	R
	RIM 101	Introduction to Archives, Records and Information Management	2	R
	KMT 103	Sociology of Knowledge and the Digital World	2	C
<b>100 Level (Second Semester)</b>				

	IST 102	Information, Society and Development	2	C
	IST 104	Libraries and Information Centres	2	C
	IST 106	Digital Technologies and Applications II	2	C
	KMT 102	Evolution of Knowledge Management	2	C
	KMT 104	Principles and Practice of Public Relations	2	C
	KMT 106	Knowledge Discovery, Creation and Acquisition	2	C
	KMT 108	Introduction to Personal Knowledge Management	2	C
	KMT 112	Fundamentals of Media and Communication	2	C
<b>200 Level (First Semester)</b>				
	IST 201	Collection Development and Management	2	C
	IST 203	Organization of Knowledge I	2	C
	IST 205	Computer Programming I	2	C
	KMT 201	Principles of Management I	2	C
	KMT 203	Knowledge Assets and Intellectual Capital Management	2	C
	KMT 205	Technologies for Knowledge Management	2	C
	KMT 207	Introduction to Project Management	2	C
	KMT 209	Fundamentals of Reputation Management	2	C
	KMT 211	Customer Knowledge Management	2	C
<b>200 Level (Second Semester)</b>				
	IST 202	Students Industrial Work Experience Scheme (SIWES) I	3	C
	IST 204	Organization of Knowledge II	2	C
	IST 206	Computer Programming II	2	C
	IST 208	Statistics for Information Studies	2	C
	KMT 202	Principles of Management II	2	C
	KMT 204	Knowledge Auditing in Organizations	2	C
	KMT 206	Social Media and Knowledge Management	2	C
	KMT 208	Indigenous Knowledge Management	2	C
	KMT 212	Virtual Organizations in the Knowledge Economy	2	C
<b>300 Level (First Semester)</b>				
	IST 301	Research in Information Studies	2	C
	IST 303	Web Design and Development I	2	C
	KMT 301	Innovation Management	2	C
	KMT 303	Organizational Theory and Behaviour	2	C
	KMT 305	Knowledge Translation: Dimensions and Perspectives	2	C
	KMT 307	Corporate Governance & Corporate Social Responsibility	2	C
	KMT 309	Theories and Models of Knowledge Management	2	C
	KMT 311	E-Commerce and Digital Marketing	2	C
	KMT 313	Artificial Intelligence and Allied Emerging Technologies	2	C
	KMT 315	Human Resource Management in Organizations	2	C
<b>300 Level (Second Semester)</b>				
	IST 302	Students Industrial Work Experience Scheme (SIWES) II	3	C
	IST 304	Data Analysis in Information Research	2	C
	IST 306	Web Design and Development II	2	C



	KMT 302	Advocacy, Lobbying, Strategy and Branding	2	C
	KMT 304	Knowledge Hoarding and Sharing in Organizations	2	C
	KMT 306	Introduction to Change Management	2	C
	KMT 308	Competitive Intelligence and Intelligence Management	2	C
	KMT 312	Financial Management	2	C
	KMT 314	E-Government in the Knowledge Economy	2	C
	KMT 316	Organization Development: Learning Organization, Organizational Culture and Organizational Learning	2	C
<b>400 Level (First Semester)</b>				
	IST 401	Seminar on Issues and Themes in Information Studies	2	C
	IST 403	Information Products and Services	2	C
	IST 405	Information and Cyber Security	2	C
	IST 407	Content Development in the Digital World	2	C
	IST 409	Infopreneurship	2	C
	KMT 401	Managing Research and Development (R&D) Programmes	2	C
	KMT 403	Data Management for Knowledge Managers	2	C
	KMT 405	Principles and Practice of Sustainability Science	2	C
	KMT 407	Project Management Practice	2	C
	KMT 409	Introduction to Implementation Science	2	C
	KMT 411	Knowledge Management Practice (Policies & Strategies)	2	C
<b>400 Level (Second Semester)</b>				
	IST 402	Startup Development and Small Business Management	2	C
	IST 404	Media and Information Literacy Programme	2	C
	IST 406	Leadership and Management in Information Centres	2	C
	IST 408	Volunteering, Freelancing, Remote Opportunities and 21 <sup>st</sup> Century Skills	1	C
	KMT 402	Designing and Implementing Knowledge Management Programmes and Best Practices in the Workplace	2	C
	KMT 404	Knowledge Sharing: Communities of Practice	2	C
	KMT 406	Monitoring and Evaluation of Knowledge Management Programmes	2	C
	KMT 408	Emerging Technologies for Knowledge Management Practice in Organizations	2	C
	KMT 412	Research Project	6	C

Table 4 indicates relevant courses for training innovative knowledge management (KM) practitioners in the era of 4IR and emerging 5IR. Courses such as knowledge discovery, knowledge assets, knowledge auditing, KM practices and models, managing innovations and intellectual capital, change management, knowledge sharing, competitive intelligence, knowledge translation, monitoring and evaluating KM programmes, virtual organizations, and the likes.

**Department of Publishing and Digital Technology**  
**B.Sc (Hons.) Publishing and Digital Technology**

**Table 5: Courses Leading to the Award of BSc in Publishing and Digital Technology (PDT)**

	Course Code	Course Title	Units	Status
	IST 101	Information Professions in the Knowledge Economy	2	C
	IST 103	Introduction to Information Literacy	2	C
	IST 105	Digital Technologies and Applications I	2	C
	PDT 101	Introduction to Publishing and Digital Technology	2	C
	LIS 101	Introduction to Library and Information Science	2	R
	KMT 101	Introduction to Knowledge Management	2	R
	RIM 101	Introduction to Archives, Records and Information Management	2	R
	PDT 103	Computer Graphics Design I	2	C
<b>100 Level (Second Semester)</b>				
	IST 102	Information, Society and Development	2	C
	IST 104	Libraries and Information Centres	2	C
	IST 106	Digital Technologies and Applications II	2	C
	PDT 102	Development of Printing Press and Digital Media	2	C
	PDT 104	Computer Graphics Design II	2	C
	PDT 106	Fundamentals of Manuscript Development	2	C
	PDT 108	Indexes, Abstracts and Bibliographies	2	C
	PDT 112	Fundamentals of Media and Communication	2	C
	PDT 114	Introduction to Literature	2	C
	IST 201	Collection Development and Management	2	C
	IST 203	Organization of Knowledge I	2	C
	IST 205	Computer Programming I	2	C
	PDT 201	Creative Writing I	2	C
	PDT 203	Principles and Practice of Public Relations I	2	C
	PDT 205	Digital Curation and Data Management I	2	C
	PDT 207	Principles of Management	2	C
	PDT 209	Economics and Economies of Scale in Publishing	2	C
	PDT 211	Social Networking Sites (SNSs) and Publishing	2	C
	PDT 213	Principles of Bibliotherapy and Mediatherapy	2	C
	IST 202	Students Industrial Work Experience Scheme (SIWES) I	3	C
	IST 204	Organization of Knowledge II	2	C
	IST 206	Computer Programming II	2	C
	IST 208	Statistics for Information Studies	2	C
	PDT 202	Creative Writing II	2	C
	PDT 204	Principles and Practice of Public Relations II	2	C
	PDT 206	Digital Curation and Data Management II	2	C
	PDT 208	Fundamentals of Self-Publishing	2	C
	PDT 212	Government Publications and E-Government	2	C

	PDT 214	Fundamentals of Children's Literature	2	C
	IST 301	Research in Information Studies	2	C
	IST 303	Web Design and Development I	2	C
	PDT 301	Editing Principles and Practice I	2	C
	PDT 303	Digital Audio Creation, Editing and Production	2	C
	PDT 305	Animations and Visual Communication	2	C
	PDT 307	Publishing Newspapers and Magazines I	2	C
	PDT 309	Digital Media and Collaborative Technologies	2	C
	PDT 311	Book Design and Production Process I	2	C
	PDT 313	Bibliometrics, Informetrics, Altmetrics and Webometrics	2	C
	PDT 315	E-Commerce in the Digital World	2	C
	IST 302	Students' Industrial Work Experience Scheme (SIWES) II	3	C
	IST 304	Data Analysis in Information Research	2	C
	IST 306	Web Design and Development II	2	C
	PDT 302	Editing Principles and Practice II	2	C
	PDT 304	Digital Video Creation, Editing and Production	2	C
	PDT 306	Digital Publishing (e-publishing)	2	C
	PDT 308	Publishing Newspapers and Magazines II	2	C
	PDT 312	Book Design and Production Process II	2	C
	PDT 314	Digitalization and Digital Transformation in Organizations	2	C
	PDT 316	Artificial Intelligence and Allied Emerging Technologies	2	C
	IST 401	Seminar on Issues and Themes in Information Studies	2	C
	IST 403	Information Products and Services	2	C
	IST 405	Information and Cyber Security	2	C
	IST 407	Content Development in the Digital World	2	C
	IST 409	Infopreneurship	2	C
	PDT 401	Educational and Scholarly Publishing	2	C
	PDT 403	Marketing in Publishing	2	C
	PDT 405	Financial Management in Publishing	2	C
	PDT 407	Open Science in Scholarly Communication	2	C
	PDT 409	Developing and Publishing Children's Literature	2	C
	PDT 411	Knowledge Management Practice	2	C
	IST 402	Startup Development and Small Business Management	2	C
	IST 404	Media and Information Literacy Programme	2	C
	IST 406	Leadership and Management in Information Centres	2	C
	IST 408	Volunteering, Freelancing, Remote Opportunities and 21 <sup>st</sup> Century Skills	1	C
	PDT 402	Corporate Publishing/ Communication in Organizations	2	C
	PDT 404	Legal and Ethical Issues in Publishing and Digital Technology	2	C
	PDT 406	Establishment and Management of Publishing Firms and Digital Innovation Hubs	2	C
	PDT 408	Emerging Technologies and the Future of Publishing	2	C
	PDT 412	Research Project	6	C

Publishing in this era of 4IR and emerging 5IR is driving so many sectors of the economy through the adoption and use of digital technologies and applications. As shown in Table 5, courses like creative writing and publishing, corporate publishing, educational/scholarly publishing, content creation, digital audio/video creation and production, self-publishing, e-publishing, digital media and collaborative technologies, marketing in publishing, and the likes, would drive education and training for publishing and digital technology in Nigeria.

## Conclusion

It is a fact that perspectives of information professionals vary on the appropriate nomenclature of the discipline of information studies as there are different but related names like information science, information and library science, information management, information and knowledge management, as well as information and knowledge sciences. These variations also depend on the mandate of different universities, like universities of agriculture and technology that run information management or LIS programmes. The obvious facts in the different memoranda received from LIS schools and many other stakeholders in the LIS profession in Nigeria that were used by the NALISE curriculum committee are for this discipline to grow alongside viable independent academic programmes. Fortunately, many LIS schools in Nigerian universities offer the afore-listed viable independent academic programmes as specializations at postgraduate levels such as postgraduate diploma, masters and doctorate degrees. Replicating the same as undergraduate programmes is long overdue, thus forming part of the justifications for developing these sample curricula.

There is no doubt that information studies as a discipline presents many opportunities that are yet to be explored in this era of digital knowledge economy in Nigeria. The afore-described degree programmes have visible, viable and clear-cut career and entrepreneurial opportunities in Nigeria and beyond. For instance, the evolving opportunities for digitally-skilled librarians in different sectors of the society abound, the demand for digital archivists and records managers, the thriving and loaded digital publishing sub-sector on the online environment as well as the continuous emerging opportunities for knowledge management practitioners in different sectors of the society demands for specialized education and training of professionals for these viable independent areas, which must holistically be supported by robust digital skills components in tandem with the 4IR and the emerging 5IR.

The identification and development of courses that would form the curriculum of these viable independent academic programmes have been achieved. This is to spur thoughts and perspectives, and possibly serve as a roadmap that will drive and facilitate the actualization of a discipline/faculty of information studies in Nigerian universities. No doubt, the BSc LIS in the CCMAS for Social Sciences is a step forward, however, the consolidation as it concerns this discipline remains the development of these viable independent academic programmes, that would subsequently emerge as departments in the proposed discipline/faculty of information studies or information science and management in Nigerian universities. Let's explore it.

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