Features

10] Herbert Haviland Field (1868-1921): Bibliographer of Zoology
   by Colin B. Burke and Michael K. Buckland

15] Precise Zoological Information: The Concilium Bibliographicum, 1895-1940
   by Michael K. Buckland and Colin B. Burke

Column

20] RDAP Review: Data and Copyright
   by Cindy Kristof

Departments

[2] Editor's Desktop
[3] President's Page
[5] Inside ASIS&T
[8] East Meets West – Joint Meeting of European and Asian Pacific Chapters at LIDA Conference
   by Emil Levine and Maja Krtalíć
History is our focus in this issue. We are fortunate to have two articles on a pioneering bibliographic service in zoology, the Concilium Bibliographicum, which had admirable goals, but ones that could not, realistically, be supported by early 20th century technology. Michael Buckland and Colin Burke have co-authored two articles on the topic, one about the Concilium’s creator, Herbert Haviland Field, and the other about the Concilium itself. As a somewhat obsessed, wealthy American man-of-the-time in Europe, engaging in diplomacy and intelligence as well as in scientific and bibliographic endeavors, Field is quite an entertaining subject. Together, the articles provide a window on the challenges faced by early attempts to provide timely, detailed alerts and retrospective search of scientific information.

Next, in this issue’s RDAP Review, Cindy Khristof, head of copyright and document services at Kent State University Libraries, leads us through the legal thicket of database copyright, one of the most confusing and contentious areas of copyright law.

Finally, on matters ASIS&T, we have a report in Inside ASIS&T on a joint meeting of the Asian Pacific and European Chapters at the 2016 Libraries in the Digital Age (LIDA) Conference in Croatia and the President’s Page, which brings us up to date on the recent election of ASIS&T officers, on personnel changes at headquarters and on the 2016 Annual Meeting activities in Copenhagen, scheduled for late October.
Since the last President’s Page, you have submitted your votes and new board members have been elected. Please join me in welcoming president-elect Lisa Given, Charles Sturt University, Australia; new treasurer June Abbas, University of Oklahoma; and new directors-at-large Dania Bilal, University of Tennessee, and Heather O’Brien, University of British Columbia, Canada. The Board looks forward to their leadership and ideas. Our thanks go to all those who ran for the various positions, as well as to those who have been contributing steadily and generously to ASIS&T for all these years, with a special note to Vicki Gregory who retires as our trusted treasurer after a long tenure. ASIS&T depends on the work of the many volunteer members who dedicate their time and energy to sit on, or chair, committees, jury the various awards, review conference submissions, design and implement new initiatives and generally keep the ASIS&T boat going. We are grateful for all the work you do.

As I mentioned in my May column, the Board has been actively engaged on various fronts including the hiring of a communications officer as well as succession planning and the search for a new executive director to replace Dick Hill. Our call for applicants for the communications officer position has elicited some excellent applicants, and we are in the process of interviewing qualified candidates who can develop and sustain a robust and comprehensive communication strategy for ASIS&T. The search for Dick Hill’s successor will be a major item on the agenda of our upcoming Board retreat in July.
As part of this process, I thought it would be helpful for ASIS&T members to be (re-)introduced to the good folks working at ASIS&T headquarters in Silver Spring, Maryland, and running the organization behind the scene. In addition to executive director Dick Hill, the two pillars of ASIS&T headquarters are Vanessa Foss and Jan Hatzakos. Vanessa, director, membership services and meetings, has been with ASIS&T since 1988, and Jan, director of finance and administration and webmaster, since 1990. Along with Dick Hill, they are the institutional memory and the ones that make things happen. They are assisted by Carline Haynes, accounting, and Stephan Addo, membership. Completing the team is Sandra Holder who serves as the first point of contact for members, visitors and vendors and provides office support. Together, they are the ASIS&T team. Make sure to introduce yourself to them at the next Annual Meeting, regional meeting or other event. We are grateful to them for their hard work, as ASIS&T continues on the path of renewal and change to meet the evolving needs of our members.

In related news, ASIS&T continues its engagement with our members’ world as well as the world around us. We have been receiving short videos from doctoral students from around the globe who speak passionately about their research. Look for these videos on our website, where they will be featured soon. A new Meet the Authors series has been inaugurated this month. Its purpose is to stretch the boundaries of the information field and get us to engage with one another as well as with folks in related fields. The first speaker to address the ASIS&T community was psychologist Dr. Robert Epstein, who spoke on July 21, about his idea of the search engine manipulation effect (SEME). The event was bound to send a shockwave of reactions within the information science community and did not fail to do so. Stay tuned for the next Meet the Author installment.

ASIS&T publications are still defining the trends in our field. A new version of the Google Scholar metrics has just been released, and despite the usual reluctance toward relying solely on the H index, it was heartening to see that two of ASIS&T publications are in the top 20, with JASIST topping the list of LIS Journal Rankings and the ASIS&T Proceedings listed at number 20. (Source: https://scholar.google.com/citations?view_op=top_venues&hl=en&vq=eng_libraryinformationscience)

Despite the world events plaguing our newsfeeds, this fall will be a busy time for intellectual engagement in Europe. If you are planning on coming to Copenhagen for the Annual Meeting, consider coming early to catch the Dublin Core and Metadata Applications (DCMA) meeting (also in Copenhagen, October 13-16). The European Conference on Information Literacy will be meeting in Prague around that time as well (October 10-13). The Association for Internet Researchers will also hold its annual meeting in Berlin, Oct. 5-8.

Regarding the Annual Meeting, the program should be up soon on our website. In addition to the paper sessions and panels, do not miss the workshop offerings and several special sessions. The first Diversity and Inclusion Luncheon is intended as a social engagement platform to celebrate diversity, discuss challenges and collaborate on strategies to bolster diversity and inclusion in ASIS&T. Attendees will also be able to meet several editors from different journals at the Meet the Editors session. Representatives from ALA, ALISE and the iCaucus will join us for a conversation on all matters accreditation at the Joint ALISE/ASIS&T Presidential Session on Accreditation. Finally, I look forward to keynote speaker Greg Walsh’s address dealing with the issue of technological human surrogates in his talk on Bridging the Telepresence Valley. Last but not least, remember that this will be Dick Hill’s (potentially) last Annual Meeting, so bring your best stories or photos and use this chance to say “thank you” to Dick and his staff.

I wish you all a wonderful summer! ■
Summer balloting is complete for the annual process of selecting new leaders for the ASIS&T Board of Directors. And the winners, who will take their seats at the conclusion of the upcoming Annual Meeting in Copenhagen, Denmark, are Lisa Given, president-elect; June Abbas, treasurer; and as directors-at-large, Heather O’Brien and Dania Bilal.

Lisa Given, professor of information studies and a research fellow of the Research Institute for Professional Practice, Learning and Education at Charles Sturt University in Australia, based her presidential campaign on her interest in deepening and strengthen engagement with members across borders, broadening the membership base across disciplines and in practice, fostering research capacity building and research leadership and developing a structured knowledge management plan for sharing materials within and across ASIS&T units.

As president-elect, Given will spend the upcoming administrative year working with Lynn Silipigni Connaway of OCLC Research who will ascend to the presidency at the upcoming Annual Meeting.

June Abbas, professor in the School of Library and Information Studies (SLIS) at the University of Oklahoma, Norman campus, looks forward to her term as treasurer during which she will work to sustain the sound financial health of ASIS&T. The step into the treasurer’s seat comes immediately upon completion of a term as director-at-large.

As a member of the Board of Directors, Heather O’Brien, assistant professor at the School of Library, Archival and Information Studies at the University of British Columbia, says she will support the ASIS&T strategic plan and its mission to provide focus, opportunity and support to information professionals and organizations around the world. And Dania Bilal, professor and interim director at the School of Information Sciences, University of Tennessee, Knoxville, wants to enhance the association’s global perspective through establishing partnerships with professional associations in the Middle East, especially in countries without an ASIS&T presence.

As the new directors join the ASIS&T Board of Directors, the following people will transition off as their terms are complete: past president Sandra Hirsch, San Jose State University; treasurer Vicki L. Gregory, University of South Florida; director Lauren D. Harrison, Roche TCRC, Inc. As noted above, June Abbas is completing her term as director and taking her seat as newly elected treasurer.
The long-awaited 2016 ASIS&T Annual Meeting, the first to be held outside of North America, gets underway in just a few short weeks (depending, of course, on when you are reading this article). From October 14-18, Copenhagen, Denmark, becomes home base for the premier, peer-reviewed international conference of information scientists, practitioners and academics.

Creating Knowledge, Enhancing Lives Through Information and Technology is the theme for this year’s gathering of the best and the brightest in the fields of information science and technology. Two plenary speakers will address the theme from different perspectives but with similar enthusiasm for the invaluable contributions our field is making to the world at-large.

Greg Welch, Florida Hospital Endowed Chair in Healthcare Simulation at the University of Central Florida (UCF), holds appointments in the College of Nursing, the computer science department and the Institute for Simulation and Training. He is also co-director of both the UCF Synthetic Reality Laboratory and the interactive systems and user experience research cluster at UCF. He will speak to the ASIS&T gathering on Bridging the Telepresence Valley.

Markus Bundschus, head of scientific and business information systems at Roche Diagnostics, brings to the ASIS&T Annual Meeting the insights of an insider in the field of biotechnology. Markus works on building bridges between industry and research and has been applying information and technology to create knowledge that contributes to the development of diagnostic tools.

In addition to these two plenary sessions, attendees will choose from among dozens of stimulating panel and paper sessions presenting cutting-edge research, applications, approaches and agendas that will continue to drive the field in the years ahead.

If you haven’t yet secured your travel arrangements, do so now so you won’t miss out on this historic ASIS&T Annual Meeting.
Peter Suber and other chroniclers of the open-access movement have noted that the open, online dissemination of scholarly and research material is reliant upon digital reproduction. Indeed, prior to our present age, Suber notes that all forms of non-rivalrous objects, such as knowledge, were tied to rivalrous modes of communication, such as paper. But is the digital age so different from the age of mechanical reproduction identified by Walter Benjamin early in the 20th century? Why should new technological mutations drive the ways in which humanities scholars disseminate their work? And is there a danger in letting technological fetishism act as determiners of humanities scholarship?

In this upcoming SIG/AH webinar, professor Martin Paul Eve will address these matters, which are formative elements of the terrain on which scholarship in the 21st century will emerge. Technology and Publishing: The Work of Scholarship in the Age of its Digital Reproducibility, featuring Martin Paul Eve from the Open Library of Humanities/Birkbeck, University of London, will be September 21, 2016, at 11:00 a.m.-12:15pm EDT. Access details will be available on the ASIST webinars site at www.asist.org/events/webinars/

Martin is the author of three books: Pynchon and Philosophy: Wittgenstein, Foucault and Adorno (Palgrave, 2014); Open Access and the Humanities: Contexts, Controversies and the Future (Cambridge University Press, 2014); and Password: A Cultural History (Bloomsbury, forthcoming 2016) and many journal articles. A strong advocate for open access to scholarly material, Martin has given evidence to the UK House of Commons Select Committee Inquiry into Open Access; served on the Jisc OAPEN-UK Advisory Board, the Jisc National Monograph Strategy Group and the Jisc Scholarly Communications Advisory Board; been a member of the HEFCE Open Access Monographs Expert Reference Group; and is a member of the SCONUL Strategy Group on Academic Content and Communications. Martin is also a qualified computer programmer (Microsoft Professional in C# and the .NET Framework) and is the author of the digital publishing tools meTypeset and CaSSius.

Diane Kelly, longtime ASIS&T member and an internationally known information sciences scholar, is the new director of the University of Tennessee School of Information Sciences (SIS). She begins on August 8. Most recently, Diane was at the University of North Carolina at Chapel Hill where she was a professor in the School of Information and Library Science. Her research and teaching interests focus on interactive information search and retrieval, information search behavior and research methods.

“Diane Kelly, one of the world’s leading experts with respect to user evaluation of information retrieval systems, is an outstanding scholar/teacher, and we are excited to have her join us as the new director of our School of Information Sciences,” said Mike Wirth, dean of the College of Communication and Information. “Her world-wide connections and extensive grasp of the evolving and expanding fields encompassed by information sciences will provide SIS with the innovative leadership required to expand its interdisciplinary and transdisciplinary teaching and research mission and to confront the challenges and opportunities associated with the world’s high-paced and fast growing knowledge economy.”

Among her many honors and awards, Diane was recognized by ASIS&T in 2014 with the prestigious Research Award. She also received the 2009 ASIS&T/Thomson Reuters Outstanding Information Science Teacher Award.
Deadline Extended for New ASIS&T Doctoral Student Showcase

Doctoral students in the writing stage or preparing for the defense of their dissertations are urged to showcase their research to a much wider audience in the new ASIS&T Doctoral Student Showcase. Eligible students are those doctoral students who have completed their coursework, qualifying examinations (or equivalent) and defended their proposals or are in the process of analyzing/writing or ready to defend their dissertations. Submissions are short videos similar to elevator speeches in which the dissertation research, related to the broadly defined information field, is presented. The producers of the best 20 submissions will win free one-year ASIS&T memberships or renewals. All vetted submissions will be featured on the ASIS&T website.

The deadline for video submission has been extended to September 1, 2016. This initiative is co-sponsored by the ASIS&T Membership Committee, ASIS&T Education and Professional Advancement Committee and the ASIS&T Outreach and Engagement Task Force. For more information or if you have any questions, please contact Iris Xie at hiris@uwm.edu.

CHAPTER NEWS

East Meets West – Joint Meeting of European and Asian Pacific Chapters at LIDA Conference

by Emil Levine and Maja Krtalić

EDITOR’S SUMMARY

The 2016 Libraries in the Digital Age (LIDA) Conference in Croatia provided an opportunity for ASIS&T’s European and Asian Pacific Chapters to come together for events and discussion of professional issues, with 43 members attending. ASIS&T dignitaries, including past presidents Tefko Saracevic and Diane Sonnenwald, led discussions about how professional associations can aid graduate students starting their careers through networking, academic opportunities and other resources. A PhD. forum drew about 60 participants, including LIDA attendees. Special announcements included the winners of top study projects and the LIDA poster contest, earning free ASIS&T membership or a cash award, and a new anonymous donor program for student memberships. The meeting was a valuable channel to promote ASIS&T membership and discuss the Association’s broad and local strategic goals.

KEYWORDS

meetings Europe Association for Information Science and Technology career development Asia graduate students association membership

The European and Asian Pacific Chapters held a joint meeting at the Libraries in the Digital Age (LIDA) 2016 conference on June 13 at the University of Zadar, Croatia. Two other ASIS&T events were held there: a discussion of the value of professional organizations and an ASIS&T sponsored PhD. forum. The events, open to all LIDA attendees, brought together library and information science scholars, practitioners and students and provided an opportunity to discuss chapter status, promote ASIS&T events and recruit new members, especially students from developing countries. ASIS&T, through the European Chapter, provided refreshments for all events.

Emil Levine, who is retired and living in Austria, has long been an active member of the ASIS&T European Chapter and a champion for ASIS&T in the international community. He can be reached at emil.levine@a1.net

Maja Krtalić is an assistant professor at the University of Osijek, Croatia. She can be reached at mkrtalic@ffos.hr
was opened by Tefko Saracevic and Diane Sonnenwald, both past presidents of ASIS&T, who discussed the organization and its importance in career development. Elke Greifeneder, Humboldt University, Berlin, Germany, ASIS&T International Relations Committee Chair, noted the new reduced membership fees based on Gross National Income. For example, student fees are $8 in many countries.

Emil Levine, retired and living in Austria, and Christopher Kho, Nanyang Technological University, Singapore represented the European and Asian-Pacific Chapters at the joint meeting, which 43 people attended. Levine announced an anonymous donor program through which $500 is annually available to each chapter to pay for student memberships with recipients selected by chapter officers and country representatives.

The European Chapter also provided two free memberships to winners of the LIDA poster contest, while five free memberships were provided by an anonymous donor to the five graduate students who presented their study projects. In addition, the winner of the project competition was awarded 500 euros by another anonymous donor.

On June 17, prior to the Ph.D. forum, doctoral and other graduate students met with ASIS&T representatives and talked about the role of professional associations when starting a career, networking through ASIS&T, looking for Ph.D. possibilities and other professional issues regarding early stage careers. Lynn Silipigni Connaway, OCLC and ASIS&T president-elect, Diane Sonnenwald, a past president, and Tatjana Aparac Jelušić, recently retired from the University of Osijek and recipient of the ASIS&T Outstanding Information Science Teacher Award in 2006, participated together with 11 students.

This session was followed by the Ph.D. forum. Altogether, around 60 participants were present at these two events. ASIS&T flyers were available on the registration desk and handed out to LIDA participants.

All ASIS&T sessions were open to all LIDA participants and provided an opportunity to address ASIS&T strategic goals regarding membership: to increase student and transitional memberships; to attract new academic, professional and institutional members; and to expand and strengthen programs and services at the local/regional level.
Herbert Haviland Field (1868-1921): Bibliographer of Zoology
by Colin B. Burke and Michael K. Buckland

EDITOR’S SUMMARY
Before the field of bioinformatics was imagined, zoologist Herbert Haviland Field advanced the Concilium Bibliographicum, a comprehensive bibliographic resource for zoology. Born in New York to a wealthy family, Field pursued his early interest in science and earned multiple degrees but was frustrated by the difficulty of searching publications. Field developed a vision and plan for the Concilium, garnering financial support from donors and his family’s resources and implementing the young Universal Decimal Classification for the project. Despite contacts with scientists throughout Europe, reliable funding for the Concilium eluded him. At the start of World War I, Field shifted his attention to relief missions, eventually using his international social position and language skills in commerce, the intelligence field and ultimately peace efforts. Attempts to rebuild the Concilium after the war failed, and Field died of influenza in 1921 at age 53, falling short of his goal to use the best technology of the day to improve information access.

KEYWORDS
information science history
bibliographies
biography
information access
biology
bioinformatics

Herbert Haviland Field developed a very sophisticated bibliographic service for zoology through his Concilium Bibliographicum in Zurich. He did intelligence work for Allen Dulles during World War I and then was largely forgotten for decades until recently. (See also the related article in this issue of the Bulletin: “Precise Zoological Information: The Concilium Bibliographicum, 1895-1940.”)

Early Life
Herbert Field was born in Brooklyn, New York, in 1868. His Quaker family attended meetings, used “thee” and “thou” and sent the children to their city’s Quaker grammar school. They stood by the Quakers’ commitment to peace while being deeply involved in modernizing American society, were devoted to education and very involved in civic affairs. Although not radicals, the adult Fields of the 19th century were progressive reformers, playing roles in causes ranging from building libraries to advancing knowledge, from educating the masses to women’s rights.

Field grew up in a lavish multi-level home in Brooklyn’s stylish Heights district with its own wine cellar and an indoor swimming pool. Servants helped maintain the home and cared for the children, who enjoyed the theater, art galleries and museums of New York City, as well as the family’s rural retreat in Great Neck, Long Island, with its tennis court and pool. His
father, Aaron Field, ran thriving trading and auction businesses and the family of his mother, Lydia Haviland, owned a famous ceramics factory in France. Despite childhood sickness and a stammer, Herbert and his younger brother Hamilton attended Brooklyn’s best private secondary schools and the world’s best universities.

Even in his early years Field showed special talents and interests. He had a photographic memory, impressed his teachers with his brilliance in all subjects (especially science), and at an early age became multilingual. When he attended the new and very expensive Brooklyn Polytechnic school, he did not opt for its practical engineering program, but selected its college-prep track, with an emphasis on science and history.

University

After he entered Harvard University, Herbert’s parents allowed him to pursue zoology, an interest that was unlikely to generate wealth as his father had and given his continued stammering, was unlikely even to lead to a job as a teacher. He completed his bachelor’s degree in 1888 and MA in 1890. He was by now fluent in Dutch, French, German, Italian, Latin and Russian. He was interested in embryology and amphibian morphology.

In 1891 he completed Harvard’s recently introduced Ph.D. degree, working on embryology under the guidance of Professor Edward Laurens Mark. As he recalled later: “For the purposes of the research undertaken, it was necessary to work through all previous publications on the subject. The search for these publications was a most laborious task and in the later stages would have seemed quite incommensurate with the results gained, if at the last some forgotten observations of considerable theoretical importance had not been unearthed” [1 p. 1]. This experience led him to crusade for improved bibliographical services. He found that information systems for scientists were very slow in notifying researchers of publications in their fields, seriously incomplete in coverage, too expensive and published using old-fashioned technologies that prevented creative use of bibliographic records. Attempts to provide remedies by, for example, the Royal Society in England and Zoological Abstracts had fallen short and seemed to him unlikely to ever produce solutions.

Europe and a Calling

After corresponding with Julius Victor Carus, the distinguished bibliographer of zoology in Leipzig, Field moved to Europe where he received doctoral degrees from the universities of Freiburg, Leipzig and Paris. He visited every country in Europe, except for Portugal and the Balkans, seeking out whomever seemed able to give advice or aid on the bibliographical problems of zoology. Felix Anton Dohrn, the enterprising German who had conceived and established the world’s first marine biology station in Naples, persuaded Field that he should not merely study the problem, but should himself take action to solve it. This endeavor became Herbert Field’s lifelong calling.

The winter of 1894-1895 was spent in Naples developing a plan. Dohrn pledged to find ways to provide five years funding. In 1895 the French Zoological Society took the lead in voting a small annual subsidy for the period of five years and initiated formal endorsement by the Third International Congress of Zoology, which provided a mandate. However, Field would always depend upon his own funds and those from his family, even after the Swiss government provided a minimal subsidy.

Classification and Cards

Herbert accepted the merits of Dewey’s Decimal Classification, even though he had some reservations about its emphasis on genetic relationships. After spending months alone in a Paris apartment experimenting with classifications he concluded that the elaboration of that system as the Universal Decimal Classification (UDC) by Paul Otlet, Henri La Fontaine and others at the International Institute for Bibliography (IIB, later FID) in Brussels was superior. Field was not only attracted by the UDC, he wanted his venture in zoological bibliography to be part of a general scheme of universal bibliography that would be in harmony with the fundamental principles of mutual aid that he had proclaimed as the policy of his own program, which he named the Concilium Bibliographicum. Field strongly shared the idealism, internationalism and pacifism of Otlet and La Fontaine.

The plan was to generate bibliographic references on standard-sized index cards, topically coded using UDC, as the basis for a system that
would provide scientists with coverage of the entire world’s zoological literature in installments supplied every two weeks. Field envisioned his subscribers integrating new cards into a local file, thereby building a cumulative, retrospective bibliography covering their field in addition to being promptly notified of new publications. The UDC notation would be the equivalent of a universal language, using cards would allow users to rearrange their files at will, and precise, complete subject indexing would save researchers from having to read lengthy summaries of articles.

The Concilium Bibliographicum

Field believed that there were enough scientists with enough money to support such a service to quickly make it self-supporting. By 1895, after becoming associated with Paul Otlet’s grander IIB in Belgium and gaining the approval of the International Zoological Congress for a test period of five years, Field decided to turn his dream into a reality. With his own and his family’s funds, the Swiss subsidy and hopes that his friends would pay for subscriptions even before he could produce any cards, he leased a villa and established the Concilium Bibliographicum in Zurich, Switzerland.

Geographically central, on politically neutral territory and having a major science library, Zurich became the chosen location after the Swiss federal and cantonal authorities offered financial support and local libraries promised cooperation. In November 1895, two rooms in the neighborhood of the university were secured for operations and on November 15 the work of the Concilium Bibliographicum commenced with a staff of two: Herbert Field as director and Marie Ruehl as his secretary.

Support

Small grants were received from some learned societies and the Elizabeth Thompson Science Fund, and there was increased support from the Swiss federal government. But Field was not, nor would he ever be, a good academic politician. Although he traveled throughout Europe to make friends with its leading scientists, the Concilium became entangled in conflicts with other nations and organizations over the control of science information services. He was also a less than proficient businessman. While by 1903 the Concilium had some 700 subscribers and had sent out close to 12,000,000 cards, the operation remained in debt, and keeping it running was eating into the inheritance from his father and putting his other investments in the United States, Switzerland, England and Germany at risk when he used them as collateral for loans needed to maintain his service.

Seeking to strengthen support for the Concilium, Field made more commitments than could be sustained. For example, he took on editorship of a bibliography of human and comparative anatomy and of a bibliography of physiology, but the resources of the Concilium were quite inadequate and both eventually had to be abandoned. At the best of times around 1906 the Concilium’s income briefly cover its operating expenses, but never its capital expense and debt repayment.

Family

In 1903 Herbert finally married at age 35. His bride was Nina Eschwege, also a Quaker, whose wealthy merchant father had moved from Germany to London. Nina gave up her work as a journalist and in 1904 their first son, Noel, was born, followed by Hermann, in 1906, and a daughter, Elsie, in 1910. Meanwhile, Herbert made other commitments, ones reflecting both his youthful upbringing and his rather poor business skills. Although now having the responsibility of a family, he did not abandon his calling despite his Concilium salary being less than his expenses. In fact, he deepened his commitments to international science and to Switzerland. He built a new villa in Zurich, one that outshone his fathers’ elegant Brooklyn Heights townhome, and he used more of his investments as collateral for a loan to erect an impressive new building for the Concilium. However, he recognized
that his family needed protection. He changed the legal status of the Concilium to a for-profit corporation so that if it did fail all of his assets would no longer be at risk.

**War and Peace**

The Concilium’s financial situation improved somewhat but Field’s recurrent health problems sometimes led to it falling behind in its work and he had to make some demeaning trips to America to try to raise the funds needed to rejuvenate it. Then, came the great disaster: World War I. The Concilium had to shut down. Nina and the children were sent to the Italian Alps for safety as Herbert moved into a small apartment and began another career and his life’s greatest adventure.

He decided to work for the Quaker’s relief agency in Europe. Handsome, charming, multilingual and accustomed to moving in elevated social circles, Field had a special pass allowing him to travel throughout the war areas. He helped arrange the delivery of food and medicine and learned much of the politics of the conflict’s coalitions. He also worked for America’s fledgling intelligence effort led by Allen Dulles, the young State Department employee based in Bern, Switzerland. After the United States declared war on Germany his travels and his information sources were restricted, but he continued to make important contributions, such as being on the boards determining trade between the United States and Switzerland, furnishing special information on Germany’s gas warfare technologies and, near the war’s end, acting as an intermediary in peace proposals between Austria and the Allies.

His work was so admired that as the war was winding down he was asked to serve as America’s eyes and ears in Bavaria. He traveled to Munich, where he found himself in the midst of the chaos of civil war and famine. He reported on conditions, emphasizing his fear and hatred of the Bolsheviks who, he said, were ruining Russia and were about to do the same in Germany and Central Europe.

Herbert Field received more honors. He was asked to help with the peace settlements in Paris and with the first plans for the League of Nations. That work led him into contact with more influential people and even an invitation for a personal visit with Woodrow Wilson, the United States’ idealistic president who, like him, was an internationalist.

**Rebuilding the Concilium**

After the peace settlement, Field turned his attention back to the Concilium and to his family. In dire need of funds for the Concilium and worried that his personal investments had been lost during the war, Herbert made a hurried trip to the United States. He visited with many important figures in the U.S. government, as well as its liberal universities and philanthropic organizations, expecting to quickly raise money for his international information effort. He also lobbied for support for the League of Nations and he attempted to solve his own financial problems, ones that he exaggerated. He became frustrated and depressed, especially after he discovered there was a new competitor to the Concilium, the United States’ National Research Council’s proposed international science information service. He fretted that both the Concilium and his family would be destitute. At one point, he thought about accepting offers to become an international banker or to work for the State Department, but he stayed with his calling. He returned to Europe in 1920 with only some hints of funding from the giant Rockefeller foundations and a bit of hope that his investments would recover from the losses of the war and the post-war financial turmoil. Nina and the children returned to the villa in Zurich.

Herbert began to rebuild the Concilium, the children returned to their private schools, and Herbert and Nina resumed their role in Zurich’s social circles. Then, before secure funding was arranged, Herbert’s poor health intervened. He died of complications from influenza in April 1921, at age 53. His family returned to the United States. When he died he may have been happy because of the indications that his family’s financial situation was improving, but it is certain he would have been shocked and disappointed by their subsequent behavior. All became believers in the Communist doctrines he detested. Two joined the Communist Party. His older son Noel Field became a Russian intelligence asset and in 1949 Noel and Hermann were kidnapped by the Soviets and held for five years. They were used in the great purges in the satellite nations. Meanwhile the
Concilium went into a steady decline and, with the outbreak of World War II, was abolished.

**Herbert Field and Paul Otlet**

There are strong parallels between Herbert Field and Paul Otlet. Both visionaries were born in 1868. Both were pacifists dedicated to international collaboration. Both saw improved access to recorded knowledge as central to progress and efficiency. Both were committed to using the best, new technologies and standards. Field is credited with inducing Otlet to change to the emerging standard card size, 75 x 125 mm. They collaborated closely and both launched their ambitious institutes in 1895.

**Sources**

The only modern accounts are Colin Burke’s detailed biography of Field, *Information and Intrigue* [2], and Kupper [3]. This article also draws on Field’s autobiographical account of the Concilium [1] and Henry Ward’s obituary [4].

---

**Resources Mentioned in the Article**


In the early 20th century the most advanced bibliographical information service in zoology and related areas was provided by the Concilium Bibliographicum, an institute established in Zurich, Switzerland, by a brilliant U.S. zoologist named Herbert Haviland Field. The service was designed with careful attention to key issues in bibliography, but was hampered by funding difficulties, insufficient subscribers, war-time disruptions and Field’s death in 1921. The Concilium ceased operations in 1940 and, like its idealistic founder, is now little remembered.

Origins

After experiencing the difficulties and the benefits of exhaustive bibliographical searching, Herbert Field dedicated himself to meeting the challenges of bibliographical access in zoology. (See also related paper in this issue of the Bulletin: “Herbert Haviland Field (1868-1921): Bibliographer of Zoology.”)

Following very widespread consultation and detailed planning, Field established the Concilium Bibliographicum in Zurich, Switzerland, in 1895, with small branches in Galicia (now Poland), Hungary and Russia, to draw on specialized language skills. The Latin name could be translated as “bibliographic association” or “league.” The Latin meaning of concilium is a group working together.

The scale of the zoological literature was estimated in 1909 as 10,000 articles a year published in over 2,000 different journals scattered among some 100,000 writings that do not interest zoologists and in some 20 different languages [1, p. 5]. The specifications of the project were (i) to be as complete as possible; (ii) subject access to primary and secondary content, not just what the title indicated; (iii) annotation or a summary sufficient to indicate precisely for each item the fundamental idea and results reported;
(iv) publication on cards to be interfiled locally with the subscriber’s previously received cards so that the two-weekly current awareness subscription would cumulate over time into a locally available complete and unified bibliography. Naturally this required every item to be examined by skilled subject specialists; and, of course, (v) to have the cards delivered to subscribers as promptly as possible [2].

The Universal Decimal Classification (UDC)

In 1895 a new, highly sophisticated classification was under development by Paul Otlet, Henri La Fonmtaine and others at the International Institute for Bibliography in Brussels (IIB, later FID, commonly referred to as the Brussels Institute): the Universal Decimal Classification (UDC). The Concilium adopted it and took responsibility for developing the section for zoology.

The UDC is an elaboration of the Dewey Decimal Classification (DDC). The most important change was development of the Dewey system’s uniform subdivisions, which could be added as suffixes to a main class number to qualify it by place, time, format and in other ways. For example, in the DDC, adding the suffix 0942 signified “in Great Britain.” In the UDC this system of subdivisions was so greatly expanded that the UDC became basically a faceted classification. Unlike DDC, each qualifying subdivision (facet) was identified by punctuation that affected the filing order. For example, “German language primers on office management in the UK” could be precisely and completely represented by 005.912=112.2(075)(410). The advantage of using punctuation rather than position to clearly demarcate different descriptive facets is that changing the order does not change the meaning. So rearranging the order allows filing and search by facets other than the primary topic. The Concilium frequently published the UDC class schedules that it was responsible for with its associated alphabetical index, under the title Conspectus. Sometimes, as in 1898, an explanatory introduction was also provided [3].

Figure 1 shows a card for an article on multiple mitosis in the spermatogenesis of the edible snail. The UDC subject coding at the top right starts with the main topic (in bold type), the class number for land snails 594.38, but since nearly all of the Concilium’s records relate to class 59 Zoology, the initial 59 is omitted for economy. (Similarly the initial 56 for paleontology is omitted.). The subject matter is then narrowed to the genus Helix, hence 4.38 Helix. A colon represents a Boolean AND in this example, followed by the second element 14.63.1 (which is 59.14.63.1 for spermatozoa, again without the initial 59). In such a case, a second subject card would also be printed with the Boolean elements reversed, thus 14.63.1 : 4.38 Helix, so that this record would also be found when searching under spermatozoa as well as under snails. The two different arrangements of the same two components were synonyms, but the facet order determined where a card would be filed. “There remains, however,” explained a Concilium guide, “a third need unsatisfied. None of the foregoing arrangements can be of any service to a person who merely wants to know what had been published in regard to mitotic cell division... so that we are obliged to to issue a third edition [i.e. card] in which 14.63.1 Spermatogenesis is replaced by 18.15 Cell-division.” Hence the record is also filed at 18.15 : 4.38 Helix. (For other worked examples see the Conspectus [3] and Hoyle and Nördlinger [4].)

Multiple Services: Economy of Scope

In contrast to earlier media, digital technology allows different products to be generated from the same data, a feature known as economy of scope. Nevertheless, the Concilium managed to generate multiple related services
from the same records. One product was the printing of bibliographical records in annual cumulations that was issued as a supplement to leading journals in the field or subfield. The central product, bibliographical indexing of zoological literature, was published as a supplement entitled *Bibliographia Zoologica: diario “Zoologischer Anzeiger” adnexa* (Zoological bibliography: Journal supplement to the *Zoologischer Anzeiger*). It replaced and continued the “Literature” section that had been a notable feature of that journal. Records relating to physiology were published as *Bibliographica physiologica* and issued as a supplement to the *Zentralblatt für Physiologie*. Others sets of records were issued as *Bibliographica cytologia*, as *Bibliographia protozoologica* and, for comparative anatomy, *Bibliographia anatomica*. A variation on this format was to print on one side of the page only so that subscribers could cut out the entries they wanted and paste them on to cards for filing.

These annual bibliographies were provided to gain cooperation from various journals and for publicity, but it was done reluctantly. Field was adamant that the primary medium for bibliographical publication should be standard 75 x 125 mm (3 x 5 inch) library cards comparable to the card service later developed by the Library Congress. Cards could be maintained as a separate file by the subscriber and possibly interfiled locally with other cards such as a library catalog. Concilium cards were filed in the huge universal bibliography maintained at the International Institute for Bibliography in Brussels, as noted in abbreviated Latin at the base of the card in Figure 1.

Card sets were sold by subscription or by special order. A subscription provided a current awareness service, whether or not the cards were filed. When filed, they provided a complete retrospective bibliography back to when the cards began production. It was hoped that existing or future published retrospective bibliographies would tidily cover the period before Concilium cards began to be available or, possibly cards might be created retroactively to bridge the gap and achieve completeness. The detailed classification allowed standing orders tailored to whatever range of interest the subscriber had. One could, for example, subscribe to records relating to insects in Palestine.

In 1901 a separate card file of new species and genera was started. It was indexed by taxonomic order and by geographical area and so allowed Boolean combinations, e.g., new reptiles discovered in Japan. This Catalog of New Species, undertaken at the instigation of the fifth International Zoological Congress in Berlin in 1901, generated 208,000 records by 1909. “It is an epitome of systematic zoology,” announced the Concilium proudly, “showing where and by whom each species was first described and in what locality it was collected. Duplicate entries, classified geographically, permit the student to provide himself with information in regard to all species collected from a given region, as Cuba for example.” [1, p. 8] It was a valuable resource, but it generated no income and funding was lacking to make it into a saleable product.

Guide cards and filing cabinets were also available for sale.

Nationalism

The Concilium was founded on international collaboration at a time when imperialism, strenuous nationalism and international competitiveness were at a peak and would soon lead to the pointless slaughter of the First World War. This political situation made funding for an international initiative difficult. It also made language policy a sensitive issue. First Latin, then French had been the leading language of science. German had become the primary language in chemistry. The trend was towards English. Caution was needed.

Herbert Field trod carefully. English, French and German were adopted as the Concilium’s three official languages and formal documents would be issued in all three languages. Less formal documents would use one or more of these three languages as convenient. Latin, regarded as neutral, was used for the name of the Concilium itself and also for the titles of its publications. The Concilium’s newsletter was *Annotationes Concilii Bibliographici* and its user guide to the UDC was *Conspectus methodicus et alphabeticus numerorum “Systematis decimalis” ad usum bibliographiae anatomicae* [etc.] even though neither contained text in Latin. The bibliographical periodicals had Latin titles.

At that time academic zoologists could be expected to cope, more or less, with English, French, German and zoological Latin. But choice of language arose when the title of an article was not in English, French or
German and might need to be augmented with a supplementary note if the title did not adequately reflect the content. The policy was adopted that articles in English, French and German would have notes in the same language, if needed. Titles in Italian, Spanish and other romance languages would be translated and, if needed, expanded in French. Germanic languages other than German would be translated into German. Slavic languages would be translated into German (as in Figure 1) or into English. A tendency towards English was excused on the grounds that most of the subscribers to the Concilium’s services were English-speaking.

The supplementary note could be quite extensive and included mention of new species and genera reported in the text.

Current Awareness Versus Completeness

There were demands from working scientists for current awareness and less interest than Field would have liked in complete retrospective searching. The Concilium argued that for most specialized topics too few items appeared each year to justify a specialized current awareness journal, that waiting for an accumulation of records caused excessive delay and that incorporation with other topics would result in having to sift through excessive extraneous matter and search through too many issues of the journal to find even a handful. So, the only adequate solution is that afforded by the card catalog at the scholar’s location in which all references are gathered at one point, new and old, side by side [6, vol 2, pp. 10].

Technological Challenge

“The intercalation of the cards as they appear may well be performed by a janitor or simple laboratory aid. Such unskilled labor is just as efficient as the work of a trained scientist could be,” it was claimed [1, p. 8]. This assertion is questionable. The UDC is not easily understood. Letters and most punctuation marks affect the decimal filing. Further, the labor required to file a single additional card increases steeply as the size of the file increases, at something like the square of the number of cards already filed. Over time this filing challenge becomes a significant burden for subscribers and, if neglected, such systems begin to break down.

Staffing

Total staff appears to have peaked at 13 in 1906. Among them was Marie Ruhl, who was Field’s chief assistant for many years, and Hermann Jordan, a German expert on sea slugs, who edited the Bibliographia physiologica. Also, for a while, Adolphe Law Voge, an engineer who had become interested in corporate special libraries and later worked at the Library of Congress, participated. On Field’s death, Johannes Strohl, a zoologist at the University of Zurich, became Field’s successor as director. Strohl had previously served as a classifier and vice-director.

Economics and Demise

By the end of 1910 the Concilium had distributed over 30 million cards. However, lack of funds and Field’s illnesses chronically hampered the work. The basic price per card was about six cents (in 2016 U.S. dollars) for a full subscription and 12 cents for partial subscriptions. Collecting subscription payments was always a problem. The number of subscriptions peaked around 700 but then steadily declined to half that by 1928.

Field tried to make the Concilium self-supporting by diversifying his products and begging for subsidies. He took out loans backed by his own assets and took a salary that never covered his expenses. Only in 1906 did subscriptions and Swiss subsidies cover the operating cost but left nothing for capital expenses or debt reduction. In 1908 a fine, but expensive, new building was occupied (Figure 2).
The outbreak of the First World War forced a suspension of service, yet costs continued, and in 1921 Herbert Field died. The Concilium never really recovered. The paid subscriptions were not close to covering the costs, and there was strenuous competition for grant support. After years of struggle, the outbreak of the Second War again rendered operation impossible and the Concilium closed in 1940 and was liquidated in 1943. It and Herbert Field were forgotten.

Retrospect

It is striking how the Concilium’s methods anticipated later computer-based services in the late 20th century. Tasks that proved so onerous for the Concilium – sorting and filing, selective dissemination, maintaining an inventory of cards, reprinting extra card sets when needed and permuted subject entries – were all well-suited for delegation to digital computers.

Sources

The only detailed modern account is in Colin B. Burke’s biography of Herbert Field, Information and Intrigue [5]. Good starting points in contemporary literature are the Conspectus[3] and Annotationes Concilii Bibliographici, a newsletter issued by the Concilium which reported not only on the development of the Concilium and its services but also controversies related to design and policy issues, and articles introducing the Concilium [6]. See also the papers listed below. The Hathi Trust now makes several Concilium publications openly available.

Resources Mentioned in the Article


Additional Resources


Any curious person frequently sees a wondrous world filled with as yet undiscovered knowledge. This knowledge is made up of smaller bits we call data. For researchers, data are essential to their work. They are identified, counted, and categorized. Later, they can be interpreted or applied. Sometimes, this knowledge results in a deep level of understanding called wisdom. This idea is expressed in the familiar DIKW pyramid (Rowley). This column focuses on the elements that make up the very bottom of that pyramid: data.

What the Copyright Law Says

In Section 102 (a) and (b) respectively, the United States Copyright Law describes what is and isn’t protected by copyright law. Copyright protects “…original works of authorship fixed in any tangible medium of expression.” Copyright protection, however

...does not extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied in such work.

In other words, the data from which original works are created is not copyrightable. Data is not created; data is discovered.

In itself, raw data is not an original work of authorship. The law, however, has handled copyright protection of collections of data – or databases – in different ways throughout the last 200+ years. Section 101 of the Copyright Law defines a compilation as

...a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship.

The term compilation includes collective works.

Some History

In the 19th century, compilations were protected by copyright under what is known as the “sweat of the brow” doctrine. The compiler’s efforts were taken into account; likewise, the infringer was seen as having “appropriated the labors” of the compilers. (For example, see Emerson v. Davies and West Pub. Co. v. Lawyers’ Co-operative Pub. Co.) Later court decisions evolved so that creativity was seen as being a component of originality, and the 1976 Copyright Act, which contains the current definition of a compilation, made the “sweat of the brow” doctrine less viable. The definitive case was the 1991 Feist Publications, Inc. v. Rural Tel. Serv. Co. in which the Supreme Court ruled that the white pages of the phone book did not meet the requirements for copyright protection. They simply
weren’t “selected, coordinated, or arranged” in an original enough way, with a “modicum of creativity.”

**“Hot News” Limitations: INS and the NBA**

During World War I, the International News Service (INS) read hot news stories from the East Coast of the United States in order to telegraph the news to the West Coast. The Associated Press (AP) argued that this practice violated their property rights to the news they had gathered and collated. The Supreme Court ruled that the AP did have rights to its news, given that their function was to accurately and promptly disseminate news, and that INS was in direct competition with AP. This case thus resulted in what is called the “misappropriation doctrine” in which data otherwise not protected by copyright under federal law could be protected under state law. This misappropriation survives “copyright preemption,” in which federal law preempts any contradictory state laws.

The INS case was drawn upon in 1997 when the NBA sued Motorola for misappropriation under New York state law. In this case, Motorola and STATS, Inc., collaborated to transmit real-time sports data via pagers. A new test for an “INS-like misappropriation” claim was formulated:

1. Plaintiff generates or gathers information at cost;
2. The information is time-sensitive;
3. Defendant's use of the information constitutes free-riding on the plaintiff’s efforts;
4. Defendant is in direct competition with a product or service offered by the plaintiffs; and
5. The ability of other parties to free-ride on the efforts of the plaintiff or others would so reduce the incentive to produce the product or service that its existence or quality would be substantially threatened. (*NBA v. Motorola*)

The court emphasized that events such as basketball games themselves are not copyrightable, but news broadcasts about them are. Though INS-like misappropriation claims will survive copyright preemption, broader misappropriation claims will be preempted.

**Database Contracts**

Because of the Feist ruling, databases are not protected as a compilation under copyright unless there is a “modicum of creativity” in selection, coordination and arrangement. Therefore, database producers typically protect their wares with contracts, which are enforced by state law. Courts have upheld these contracts, ruling that they are not preemptive. Although there have been exceptions, the “courts generally find that since a breach of contract claim requires proof that the parties involved entered into a contract, the contract claim is not the equivalent of any of the exclusive rights provided under the Copyright Act and therefore is not preempted.” (See *Tysver*.)

It is necessary to know what a license contract says about the use of a database, both before entering into the agreement in the first place and before extracting data for use in research and publication. A database with an overly restrictive license may not be useful, so librarians have a primary responsibility to evaluate and negotiate licenses that will prove useful to researchers. Bear in mind that data may be available from a variety of alternative sources.

**In the End**

Copyright protects original expressions of ideas. Facts themselves are not subject to copyright, but the creative expression that frames them is. Aside from the specific limitations of “hot news” and licensed sources, these data building-blocks – statistics, dates, weights, measurements,
facts and ideas – remain uncopyrightable under United States law. This status also helps to “promote the progress of science and the useful arts” as set forth in the Constitution and enables authors, researchers and creators to produce knowledge – and perhaps even allows wisdom to flourish.

## Resources

### Sources Consulted


### Cases Mentioned in the Article


