

AC 2010-731: JOURNEY TO THE CENTER OF A CV: OUR LIBRARY'S ROLE IN DEVELOPING AN INSTITUTIONAL BIBLIOGRAPHY

Anne Rauh, University of Wisconsin, Madison

Anne Rauh, Information Services Librarian, serves as a reference, instruction, and liaison librarian at the University of Wisconsin - Madison's Wendt Library. She is responsible for the departments of Biomedical Engineering, Chemical and Biological Engineering, Materials Science and Engineering and their related research units. Anne graduated from the University of Wisconsin - Madison with a M.A. in Library and Information Studies in 2007 and a B.A. in International Studies in 2004.

Jody Hoesly, University of Wisconsin, Madison

Jody Hoesly is the Collections and Scholarly Communications Librarian at the University of Wisconsin - Madison's Wendt Library. Jody has a B.S. in Mechanical Engineering and worked as an engineer in the machine tool, recreational vehicle, and electrical contracting industries. In 2008, she graduated from the University of Wisconsin - Madison with an M.A. in Library and Information Studies. She is also a certified K-12 teacher-librarian, technology teacher, and Project Lead the Way (PLTW) instructor. Jody recently joined Wendt where she manages the collection budget and serves as a reference, instruction, and liaison librarian.

Journey to the Center of a CV: Our Library's Role in Developing an Institutional Bibliography

Abstract

This paper shares our library's journey through the design and implementation of a sustainable workflow that collects faculty publication data for release 1.0 of our institutional bibliography. Using the Engineering Physics Department as a pilot project, we describe our quest to establish the project borders, understand the department's publishing environment, overcome limitations with citation management tools, build a competent team, scaffold the search for quality citations, set up an organized software site, and build bridges to expand future library service prospects.

Establishing the Borders: why are we doing this and what was done before?

An institutional bibliography is a valuable resource to any university because it maintains a record of publications generated by university faculty. This project was originally initiated to provide institutional publication information not available from our institutional repository. Faculty and the wider community can search the institutional bibliography to see a history of the institution as well as the changing roles of college facultyⁱ. Our institutional bibliography not only lists publications, it also illustrates the inter-relationships and collaboration occurring within our research community. Faculty can keep their personal profiles current by interfacing their website with the institutional bibliography data. The publication data not only provides more purposeful communication within the institution, it can also be used in developing bibliometric benchmarks that reveal research discoveriesⁱⁱ.

From the initial concept, our library has actively participated in the project. Because the role of the academic library is dynamically changing, we see this project as an opportunity to expand user-focused services. In the book, Providing Effective Library Services for Research, the message is clear that librarians must know their users and their needs to support their researchⁱⁱⁱ. By understanding our faculty scholarly output, we can provide collections and support services that meet the information seeking strategies of our researchers. Expanding our service model to include the institutional bibliography aligns with our library's vision to help scholars and researchers share and document their publications.

In 2007, programmers at our library held focus groups with faculty in the College of Engineering and the School of Medicine and Public Health to better understand their personal management of publication history. During the course of these focus groups, library staff found that faculty do not keep publication lists up to date and the responsibility for doing so lies with department administrators or research assistants. The study also concluded that citation re-use is extremely important as faculty often have to maintain these lists in multiple locations^{iv}.

An example of such issue is Professor Ray Vanderby who has three profiles to maintain:

Department of Biomedical Engineering Profile^v

Biomedical Engineering

College of Engineering

University of Wisconsin-Madison

[Home](#) : [Faculty](#) :

Ray Vanderby, Jr.



Ray Vanderby, Jr.
Professor

- [Address/E-mail](#)
- [Program Affiliations](#)
- [Courses](#)
- [Education](#)
- [Fields of Interest](#)
- [Publications](#)
- [Additional Experience](#)
- [Summary](#)

Contact Information

Room 5059
1111 Highland Avenue
Madison, WI 53705

Tel: 608/263-9593
Fax: 608/265-9144
E-mail: vanderby@ortho.wisc.edu

Program Affiliations

- [Biomedical Engineering](#)
- [Engineering Physics](#)
- [Mechanical Engineering](#)
- [Biomedical Engineering Center for Translational Research](#)
- [Engineering Mechanics](#)
- [Materials Science Program](#)
- [Orthopedics and Rehabilitation](#)

Department of Orthopedic Surgery Profile^{vi}

Ray Vanderby, Jr., PhD



Professor of Orthopedic Surgery

K4/738 Clinical Science Center
600 Highland Avenue
Madison, WI 53792-7375

Office: (608) 263-9593

FAX: (608) 263-5631

vanderby@ortho.wisc.edu

Education

- PhD, Engineering, Purdue University, West Lafayette, IN, 1975

Research Interests

Dr. Vanderby directs the work of an orthopedic research team, which includes [research staff members](#), [engineering students](#), and medical students. His research includes evaluation of normal and healing connective tissues, and their response to changes in their mechanical environment. He is also involved in tissue engineering for orthopedic applications. He is also a [Biomedical Engineering](#) faculty member.

Active Grants

- "Ligament Healing: Role of Neuropeptides"
- "Mechanical signal transduction mechanisms of chondrocytes"

Recent Publications

[Administration](#) - [Maps](#) - [Affiliated Hospitals](#) - [UW Home](#)

[Administration](#) - [University of Wisconsin Department of Orthopedics & Rehabilitation](#)
First published: 07/15/02 Last updated: 03/08/10 webmaster@ortho.wisc.edu
Copyright © 2005 The Board of Regents of the University of Wisconsin System

University of Wisconsin Stem Cell and Regenerative Medicine Center Profile^{vii}

The Vanderby Laboratory

[Faculty](#) > [Ray Vanderby](#)

Ray Vanderby

Professor, Orthopedics and Rehabilitation, Biomedical Engineering

vanderby@orthorehab.wisc.edu

[Vanderby Laboratory Home Page](#)

Organ System/Disease Focus

Skeletal system tissue healing

Aligned Research Focus

Tissue regeneration of ligament, tendon, and cartilage

Research Description

I am particularly interested in orthopedic tissues (bone, ligament, tendon, cartilage, etc.). My research focuses on wound healing or regenerating these tissues via tissue engineering. This includes equal parts of functional characterization (e.g. biomechanics), microstructural morphology and composition, and the relevant biological sciences (cell and molecular biology, histology, etc.).

Additionally, I am interested in ultrasonic wave propagation in these tissues for clinically relevant characterization of tissue properties and functional loadings, as well as tissue regeneration for knee reconstruction procedures. To study these orthopedic issues, in my lab we use and adapt engineering and biological methods including experimental, analytical and computational approaches.



Ray Vanderby

Incorporating the ideas generated from focus groups, programmers designed and prototyped an institutional bibliography system that generated interest, not only on our campus but with other institutions. A collaborative effort between the University of Wisconsin - Madison and the University of Illinois at Urbana-Champaign resulted in an open source production version release in the spring of 2010.

During the prototyping phase in 2007, we used engineering faculty citations to demonstrate the project value. Librarians did the searches and manually filtered the results because of the wide variations in results due to a lack of authority control for these search fields. Using Compendex and Inspec, searched together through Engineering Village, and Web of Science they captured citations using author names and affiliation searches. The citations collected were of excellent quality. A RefWorks folder was created for each engineering department with three folders per faculty member: an Engineering Village folder, a Web of Science folder, and a combined folder.

In 2009, our institution's central library system supported the project. Wendt Library was tasked with developing a process to harvest high quality bibliographic data to fill the application. The goal was to be able to use student labor as much as possible to capture the data. To test the workflow, we targeted one department within engineering. Supportive of the project from the beginning, the Engineering Physics Department provided their curricula vitae (CVs) which were core to the workflow. Once all of the CVs were received, we began experimenting with processes to utilize data that had been captured in the prototype phase and moving forward with data collection.

Acclimating to the Environment: what are the best methods for finding the publications?

Each research area has a unique publishing environment for sharing new ideas and trends in their field. Journal titles, professional conferences, and technical papers vary by discipline and can be abundant and easily available or selectively indexed. To get acclimated to the Engineering Physics scholarly community, we experimented with various resources and tested processes to expedite locating and capturing quality citations. Investigating the Engineering Physics landscape gave us a sense of the boundaries and limitations within which we needed to navigate for this project.

Initially we tried global author searches using standard indexing databases such as Inspec, Compendex, and Web of Science as had been done for the 2007 prototype. Because of a lack of authority control for author names, we received hundreds of results that were not published by the authors we were searching. This was especially true for common names such as Allen or Wu. Limiting the author search to an affiliation, such as "Madison", narrowed the result, but by too much because there are numerous variations in how author affiliations are listed – i.e. University of Wisconsin, UW-Madison, University of Wisconsin – Madison, Univ. Wisc. Mad., etc. We also tried an author search using Google Scholar. The results were actually very good and included publications that were not included in Inspec or Compendex. Unfortunately, the Google Scholar citation quality was incomplete and unacceptable for use in our project. From this analysis, we concluded that the CV needed to be the quality control document for author publications and quality citations were critical to data integrity.

Once we had a sense of where the Engineering Physics literature could be located, we tested various workflows combining databases and search engines with various citation managers. Our testing resulted in the following workflow:

Workflow Overview

ADMIN - Setup (old citations on flash drive, tracking sheet, citation counts, etc.)

STUDENT - De-dup 2007 citations

STUDENT - Verify 2007 citations against CV

STUDENT - Search for other citations in Google Scholar

STUDENT - Ask librarian for database recommendations

STUDENT - Search recommended databases for citations

STUDENT - QC check: verify citations have loaded correctly in Zotero, fix as necessary

LIBRARIAN - QC check

LIBRARIAN - Search for missing citations and resolve ? issues

ADMIN - Upload to bibapp

LIAISON - Resolve ?'s with faculty, request items not findable, search for citations from CV to date, setup alerts

STUDENT - Manual entry of unfound citations - ????

LIAISON - Manage alerts and periodically update

Sharpening the Tools: which technology systems best support the process?

The tool that we chose to do the bulk of the citation capture was Zotero. We came to this conclusion after testing both RefWorks and Zotero extensively. The foremost feature that led us to this decision was the ability to capture citations from any page with metadata rather than just pages with a citation export option. We were also drawn to Zotero because of its clean look and the simplicity with which we could create folders and organize our citations. One drawback to using Zotero is the absence of automatic duplicate detection. However, manually removing duplicate citations in Zotero is much less onerous than in RefWorks. EndNote was not considered for this project as not all project participants have access to that program. EndNote will be used in some of the final stages of the project for gathering citations from subject specific databases that do not work with RefWorks or Zotero, such as the International Nuclear Information System.

Drafting our Travel Partners: how to keep the team together?

Throughout the implementation of the process, we continuously evaluated our communications and met regularly to stay on course. In these meetings, we discussed any technical or procedural barriers, and made changes to our test process as needed. The workflow we designed included labor beyond what the two of us could provide. After we established a test process, we needed to recruit additional staff to our team.

The first person we added to our team was Karen, a senior librarian with a document delivery service housed within our library. Along with Karen came her student labor force that would eventually collect many of the citations for the institutional bibliography. Karen contributed her expertise at finding obscure citations, translating citations as they appeared on faculty CVs to what is published, and managing the workflow of a project that uses continually changing student staff members.

One of Karen's first suggestions was to create a tracking sheet for the students to record what they were finding and where they were finding it. This tracking sheet eventually expanded to include the amount of time students were spending on each step of this project, quality control checkpoints, and places to indicate data back-up. As the project progressed, student staff and librarians used these sheets to keep records and pass information between group members.

Technical service and reference experts, Rolf and Richard, were the next two team members to join us. Rolf is Wendt Library's journals librarian and Richard is the serials librarian. They brought knowledge of the engineering literature, an understanding of the complexities of citations, and attention to detail that is necessary to meet the quality standards we have laid out for the project. After the students collect citations, Richard and Rolf review their work for missing information or poor quality citations. They then search for remaining unfound citations in more obscure databases with which the students are unfamiliar. Richard and Rolf also make use of the tracking sheet to record the amount of time they spend with each CV and to note additional resources where high quality citations can be found.

The final part of our team is our student workforce. A number of students from both our circulation department and our document delivery service are trained in the workflow of finding and collecting citations for the institutional bibliography. The two sets of students work in different ways. The student who has collected citations from the document delivery service is a graduate student in library studies and tends to work on the project for longer periods of time when the workload allows. The circulation students each perform thirty minutes of searching every week while attending to the services desk. The tracking sheets have proved particularly important for the circulation students as many students work on one CV before passing it on to Richard or Rolf for quality assurance.

Climbing the CV Citation Mountains: how to build quality assurance into the process?

As we looked at the range of citations, we couldn't help but wonder: why we are doing this? The mountain of work seemed too steep to conquer, and at times, we questioned the worth of a project that demanded we risk the possibility of failing in front of our colleagues and faculty. Despite the dangers, we believed that the climb would provide us with a new view of library services. To reduce our risks, we concentrated on the path to the top rather than the summit itself. We employed project management methods to help plan and implement this service^{viii}. With teamwork and in-process quality control, the slopes seemed to level off, making them scalable. The following are some tips that we devised to scaffold the work:

Avoid the data avalanche: On the first day, students enthusiastically captured hundreds of citations. The next morning they returned to continue searching and were shocked to find that all of their work from the day before had been deleted. The problem was that the machines they use are reimaged nightly. To prevent this data loss, we transitioned to Mozilla Firefox Portable Edition and ran Zotero from a jump drive. For each faculty member, there were subfolders set up: one for CV citations, one for questionable citations, and one for 2007 citations. We also created a shared drive backup and release folder to reduce data loss.

Rappel the monster citation slopes: We designed the process to make steady progress finding citations. During the initial preparation state, a librarian team member reviews the CVs and eliminates citations that students will most likely not find. The process starts with easy searching in Google Scholar and then moves on to more targeted searching in licensed resources such as Compendex, Inspec, PubMed, Energy Citation Index, and Conference Papers Index.

Rope together: To maximize student hours, we developed a CV project folder to monitor progress and allow an easy handoff from one student to the next. The folder included the tracking sheet, which was used to record time, number of citations found, and notes. Students also use a color-coding system to indicate what source was used to capture the citation. The folder also included a copy of the CV, student instructions, librarian instructions, and a pocket to hold the jump drive. See appendices for contents of the folder.

Weather the storm of other projects: We designed the data workflow and started production during the summer of 2009. Progress quickly slowed to a halt in September and October due to

librarian teaching commitments and other project priorities. Flexibility and the ability to reenergize the process were periodically needed to continue moving forward.

Build in checkpoints: Along the path, we built in communication tools, instruction sheets, and checkpoints to ensure data quality. After librarians checked the first few completed CVs, we identified citation errors that students could check before passing on for the final quality check. These checks included verification that the count of citations in the Zotero folder matched the citations the tracking sheet, then examining each citation in Zotero. By building quality assurance into the process, we were able to reduce the librarians' time.

Know when to turn back: Our initial citation count statistics indicated that students were finding almost eighty percent of the citations listed on the CVs. Senior library staff then tried to find the missing citations. Occasionally they would find one or two citations, which typically were incorrectly cited on the CV. Even though we would like to find one hundred percent of the citations, we also believe that the citations should be easily findable. We concluded that one hundred percent is achievable, but should not be pursued at this time. Ideally, this is an opportunity to obtain a copy of the harder to find publications and post them in the institutional repository so they are more findable. A snapshot of the citation counts are shown below:

ENGINEERING PHYSICS																			
Faculty Name	CV Date of Last Citation	Original Count	Students							Librarian QC				Process Monitors					
			2007 Unfound	Google Scholar Unfound	Targeted Database Unfound	In CV Folder	? Folder	Time (min)	% Found	In CV Folder	? Folder	Time (min)	% Found	CV Prep	Student	QC	Notes	Status	
Allen Mathew S.	2008	38													JH	Circ			folder #1 complete
Allen, Todd R.	2008	10				0	10		25	100			0	100	AR	WTS	WTS		complete 10/01
Blanchard, James P.	2009														RW				
Bier, Vicki M.	2009	192	n/a												AR				folder #4 complete
Bonazza, Riccardo	2007	55			22	33	0	90	60	34	0	150	62	KW	WTS	Rolf			complete 10/16
Corradini, Michael L.	2007	415													JH				
Crone, Wendy C.	2008	125	93	83	74	51	21	176	41	61	11	285	49	AR	Circ	Richard			complete 12/03
Drugan, Walter J.	2008	25	4		1	24	19	20	96	24	19	85	96	AR	WTS	Rolf			complete 10/19
Fonck, Raymond J.	2007	378													AR				
Hegna, Chris C.	2002	85	39	20	19	66	40		78						KW			40 in ? Folder	folder #5
Henderson, Douglass L.	2009	103					67	41		65					KW			SUPER CHALLENGE - includes UWFDM, need to	folder #3
Hershkowitz, Noah	2009														AR				
Kammer, Daniel C.	2008	79													KW		Richard		folder #6
Kulzinski, Gerald L.	2009	421													AR				
Lakes, Roderic S.	2008	264	204	54	26										KW				completed 12/03
Mackie, Thomas R.	2004	193			37	147	0	265	76	157	1	595	81	KW	WTS	Richard			complete 10/19
Morgan, Dane	2009	81	n/a	31	19	59	0	110	73	64	0	35	79	KW	Circ				completed 11/10
Moses, Gregory A	2008	206													RW	Circ			folder #8
Plesha, Michael E.	2005	55			25	55	4		100						KW				folder #9 complete
Pfotenauer, John M.	2008	98	62	59	42	56	0	255	57	56	0	270	57	JH	Circ	Richard			completed 10/26
Potter, Warren																		Waiting for CV - Sent email 9/25	
Smith, Leslie M.	2008	33	27	7	6	27	157	120	82						KW	WTS			
Sovinec, Carl R.	2008	63	49	43	31	43	14	170	68	45	9	180	71	JH	Circ	Richard			completed 11/03
Vanderby, Ray	2009	472	n/a												RW				folder #7
Volpe, Francesco	2007	103													RW	Circ			folder #2
Wilson, Paul P.H.	2007	91													RW				
Witt, Robert J.	1995	14													JH				
student Average									75	Average									74

Into the Forest: what is the organizational structure of the software?

Compared to climbing through a mountain range, loading the software with the data is like a leisurely hike on a groomed trail through the woods. To set up an organized site, we developed the ground rules, delivered the necessary supplies, and connected paths to other groups.

Configure the departmental structure and campus affiliations: The software pulls faculty information from the university personnel system. Librarians then add images of the faculty and fields of interest as listed on the College of Engineering website. The software then creates pen names using all combinations of initials and full names, which are matched to citations as they upload. This allow us to upload citations with full first names, one initial or two initials while displaying the full name of any authors listed in the system.

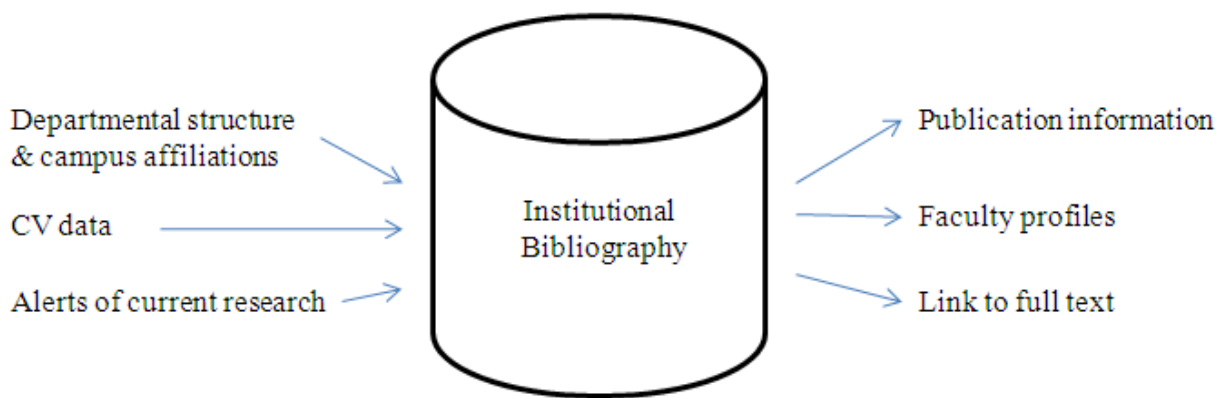
Deliver CV data: We then import citations into the software in various formats including RIS, MedLine, and RefWorks XML. Duplicate citations are automatically separated so that we may select the preferred citation.

Keep data current: In order to keep the software up to date with recent research, we create citation alerts for faculty publications. Liaison librarians will receive these alerts and assume responsibility for adding new citations to the application as they appear in the literature.

Connect collaborators: Once citations are uploaded for a faculty member, there is an option to connect coauthors within the system to a citation.

Establish authorities: The software allows for librarians to create a journal title authority matrix. A librarian with administrative rights to the program can group journal titles as they have been uploaded to the system and select the preferred journal title. This allows us to upload citations with only journal abbreviations or citations lacking ISSN numbers and have the complete title and ISSN number display in the record.

Utilize the data: Accessible from a campus website, citations can be viewed by author, department, research centers, title, or publication types. The institutional bibliography can feed content to faculty profiles. Full text publications can be found from the OpenURL resolver or institutional repository link.



Building Bridges: how to expand and be adaptable for the future?

As we have been completing our journey, we have thought not only of the project as it exists today but of future goals we have for the bibliography, researchers featured in it, and librarians participating in the building process. Down the road, we hope to expand the institutional bibliography to the entire campus as well as use the knowledge gained from its development to improve other library services.

The first service area we see the institutional bibliography affecting is our liaison service. Maintaining awareness of liaison department publishing is a goal that many liaison librarians have set for themselves so it was a natural transition to involve them in maintaining the integrity of the departmental data in the institutional bibliography. Because of the discrepancies between CVs and published citations, we have a strong need for communication between the researchers featured in the bibliography and the library. We also see the bibliography as an individualized service that our liaisons can take to their faculty at introductory meetings and provide a collaborative environment for continued relationship development.

At our library, liaisons are also responsible for collection development. We believe that by working with the alert functionality of the engineering literature databases to update data in the bibliography, liaison librarians will have a better understanding of current research going on within their departments which will assist in collection development. At the University of Minnesota campus, they found that by building a database of faculty publications, they were better informed to make decisions about book purchases and journal cancellations.^{ix}

The next bridge that we would like to build with this project is with the researchers themselves. As we stated earlier in the paper, the data from the bibliography can be re-packaged and re-used by the researchers and their departments to maintain up to date professional profiles. We hope that this feature of the bibliography will persuade researchers to submit CVs for our use as well as to maintain data on their own. Our software allows for different user types and we envision researchers designating research assistants or department administrators to update their profiles.

Another bridge that we hope to build is one to other libraries across our campus. Due to the interdisciplinary nature of research being done on our campus, expanding this project beyond the boundaries of the College of Engineering would demonstrate a more complete picture of the publishing relationships among faculty and researchers. Through our examples within engineering, we are able to demonstrate collaborations within the College of Engineering and are looking for libraries that support other college and departments to further enhance that picture.

The last bridge that we anticipate building is one that leads directly to the institutional repository. One of the original goals for developing the bibliography software was to create a tool that would feed our repository. The software we are using allows researchers or their designates to upload objects to their profiles, which will then be ingested into the institutional repository. While the institutional repository librarian formats the object for the repository, the item is available to the public exactly as uploaded by the researcher. Once the object is in the institutional repository, a link from the citation is created from the bibliography to the archived

object. In addition to populating our repository, this feature gives researchers an avenue to make previously undiscoverable material findable.

Conclusion

Our journey has benefited not only the Engineering Physics faculty but also the librarians at our library. Faculty members now have accurate publication data to embed and reuse in their professional profiles. Liaison librarians have gained a tool for monitoring research being done within their liaison communities that influence collection development. Future goals of this project include expansion throughout the College of Engineering and improved partnerships with other information systems, such as our institutional repository. Our contributions to the design and implementation of an institutional bibliography demonstrate an expanded service created to advance scholarly communication.

Our hope is that by sharing this process, we encourage you to use your own experiences, customer service focus, and agility to transform library services to meet the changing needs of your research community^x.

ⁱ Vanette Schwartz and Bruce Stoffel, "Building an Online Faculty Publications Database -- an Alternative to the Institutional Repository," College & Undergraduate Libraries 14.3 (2007).

ⁱⁱ N. J. Adler and A. W. Harzing, "When Knowledge Wins: Transcending the Sense and Nonsense of Academic Rankings," The Academy of Management Learning and Education (AMLE) 8.1 (2009).

ⁱⁱⁱ Jo Webb, Pat Gannon-Leary and Moira Bent, Providing Effective Library Services for Research (London: Facet, 2007).

^{iv} Eric Larson and Timothy Donohue, "BibApp Tutorial (version 0.7)". Joint Conference for Digital Libraries. 2008.

^v "Biomedical Engineering - Vanderby, Ray , Jr.," http://www.engr.wisc.edu/bme/faculty/vanderby_ray.html.

^{vi} "Orthopedic Surgery Faculty Ray Vanderby, Ph.D. - University of Wisconsin Department of Surgery," <http://www.orthorehab.wisc.edu/Ortho/faculty/vanderby.shtml>.

^{vii} "University of Wisconsin Stem Cell and Regenerative Medicine Center: Ray Vanderby," <http://stemcells.wisc.edu/faculty/vanderby.html>.

^{viii} D. I. Cleland and L. R. Ireland, "The Evolution of Project Management," Global Project Management Handbook: Planning, Organizing, and Controlling International Projects (2006).

^{ix} S. Marsalis and J. Kelly, "Building a Refworks Database of Faculty Publications as a Liaison and Collection Development Tool," Issues in Science and Technology Librarianship 40 (2004).

^x P. E. Sidorko, "Transforming Library and Higher Education Support Services Can Change Models Help?," Library Management 29.4-5 (2008).

Appendix A. Student Instructions.

Load CV Citations - Students

1. **SETUP** – Open firefox portable on flash drive (this is the only instance of firefox that can be running). In Zotero, create a CV and a (question) ? folder using the last name and initials of the faculty member such as CV - Allen, MS, ? – Allen, MS. If the faculty member has citations from 2007, there will be a folder in Zotero with those citations. If no 2007 citations available, skip to step 4.
2. **DE-DUP 2007 CITATIONS** – Remove duplicate records in the 2007 folder. Suggestions for removing duplicates:
 - a. check page numbers to verify if it is a duplicate
 - b. choose a citation with an abstract and issn/isbn over one without (more info = better search results later)
 - c. choose a citation with Digital Object Identifier (DOI) over one without
 - d. view zotero in entire browser window when looking for duplicates
 - e. change view to display more title information and year
3. **2007 CV SEARCH** – Using the CV, search for each citation listed in the 2007 folder. If the citation is in the Zotero 2007 folder, drag and drop it into the CV folder, delete it from the 2007 folder, and highlight the citation on the CV with the corresponding 2007 color. When completed, move any remaining citations from the 2007 folder to the ? folder. Delete the 2007 folder.
4. **GOOGLE SCHOLAR SEARCH** – In sequential order on the CV, search Google Scholar for citations not found in the 2007 folder. If needed, use advanced search with the author's last name, title keywords, and/or date range. If the citation is listed in Google Scholar, click on the link to go to the publication source, and then transfer the citation to Zotero. On the CV, highlight citations found using the corresponding GS color.
5. **LIBRARIAN CONSULTATION** – Take your CV to a project manager for database consultation. They will recommend the next places to search.
6. **TARGET DATABASE SEARCH** – After discussing a search strategy with a librarian, search for remaining CV citations using target databases. On the CV, highlight citations found using the corresponding color.
7. **STUDENT QC** – in Zotero scroll through all of the citations that you have imported and double check that things are in the correct field (article title in title field, etc.)
8. **ROUTE CV** – route CV, flash drive, tracking sheeting and instructions to the librarian assigned to do follow up searching.
 - a. WTS students, pass your materials on to Rolf.
 - b. Circulation students, pass your materials on to Richard.

Appendix B. Librarian Instructions.

Challenging Searches and QC - Librarian

1. **SETUP** – Open firefox portable on flash drive (this is the only instance of firefox that can be running) and Zotero. There will be two folders of citations in Zotero, one for CV citations and one for questions. Example: CV - Allen, MS, ? – Allen, MS
2. **BACK UP COLLECTIONS** – right click on each folder (Allen CV, etc.) and choose export. Choose RIS as the format and export the notes. Save the file in T:\BibAPP\Flash Drive Back Ups and name file with faculty name, folder name (CV or Questions) and date.
Example: CV - Pfothenhauer JM 21Oct2009.ris
3. **VERIFY STUDENT COUNT** – verify that the number of citations highlighted, matches the number in the CV folder and the number written on the sheet. If there is a discrepancy, return to students to fix.
4. **REVIEW NOTES and ? FOLDER CITATIONS.** Review any student notes on the tracking sheet or written in the margins of the CV. In Zotero, review the citations in the Question folder. Leave only citations that the EP faculty member may have published that are not listed on the CV.
5. **SEARCH FOR MISSING CITATIONS** – Try to locate citations for CV items that the students did not find. Load them into the Zotero Folder.
6. **BACK UP COLLECTIONS** – repeat directions for step #2
7. **CHECK/EDIT CV CITATIONS** – Check citation quality including whether the fields are parsed correctly and document type is correct. If needed, edit the citations. (note: DOE citations need TLC.)
8. **BACK UP COLLECTIONS** – repeat directions for step #2
9. **RECORD FINAL COUNTS IN SPREADSHEET.** In the T:\BibAPP folder, open the Citation Collection Tracking document and enter the number of citations found by the student and librarian.
10. **RETURN MATERIALS** – return completed CV, tracking sheeting, flash drive and instructions to a project manager.

Appendix C. Alerts Instructions.

Institutional Bibliography
BibAPP Data Checklist

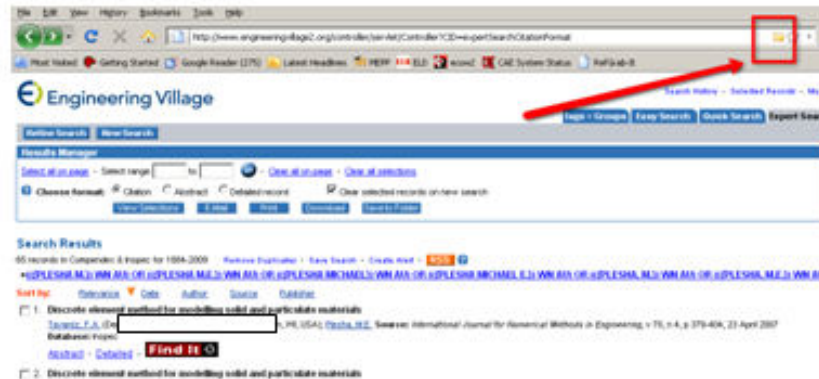
Engineering Physics

SEARCH FOR CURRENT CITATIONS AND SETUP ALERTS

1. ENGINEERING VILLAGE SEARCH – Using the Expert Search and the Author Browse function, enter the last name and select all possible name options for your individual, i.e. Plesha M., Plesha M.E., Plesha Micheal, Plesha Michael E. Some of these options need to be selected for both Inspec and Compendex. Enter date ranges starting from last publication date listed in CV to present. Run search. Limit to the University affiliations.



2. TRANSFER CITATIONS TO ZOTERO – Remove Duplicates with No Field Preferred; Inspec Preferred. Using the multiple citation capture function in Zotero, capture every citation on this page. Repeat for each page of citations.



3. SET UP EV ALERTS – Create email alerts from search results page.

Search Results

65 records in Compendex & Inspec for 1984-2009

Remove Duplicates - Save Search - **Create Alert** - RSS

•(((PLESHA M.) WN AU) OR ((PLESHA M.E.) WN AU) OR ((PLESHA MICHAEL.) WN AU) OR ((PLESHA MICH

4. WEB OF KNOWLEDGE SEARCH – Search by author using last name and both one and two initials. Limit to University of ____ affiliation. Enter date ranges starting from last publication date listed in CV to present. Select citation database for Science Citation Index Expanded. Run search.

Web of Science®

Search for:

Plesha M OR Plesha ME in Author

Example: O'Brian C* OR OBrian C*

Need help finding papers by an author? Use [Author Finder](#).

AND [] in Address

Example: Yale Univ SAME hosp ([view abbreviations list](#))

5. CAPTURE CITATIONS WITH ZOTERO – Using the multiple citation capture function in Zotero, capture every citation on this page. (Setting the results to show more results per page will limit the number of time you have to capture results.) Repeat for each page of citations.

6. VIEW SEARCH HISTORY

All Databases | **Select a Database** | **Web of Science** | **Additional Resources**

Search | Cited Reference Search | Advanced Search | **Search History** | Marked List (0)

Web of Science®

Search History

Set	Results		Combine Sets	Delete Sets
#1	33	Author=(Plesha M OR Plesha ME) AND Address=[] <small>Databases=SCI-EXPANDED, SSCI, A&HCI Timespan=All Years</small>	<input type="radio"/> AND <input type="radio"/> OR <input type="button" value="Combine"/>	<input type="button" value="Select All"/> <input type="button" value="Delete"/>

Save History / Create Alert | Open Saved History

7. CREATE ALERT – Change settings as shown and save.

1. Edit the fields you wish to change.
2. Click "Save" below when done.

Product: Web of Science

History Name: Plesha (Required) **Professor's last name**

Description: Plesha BibApp Pubs (Optional)

Number of Search Queries: 1

Send Me E-mail Alerts: (Results of the last query in your history will be e-mailed to you.)

Send to e-mail address: ep@ []

Alert type: Full Record

E-mail format: Field Tagged

Alert query: Author=(Plesha M OR Plesha ME) AND Address=[]

Alert editions: SCI-EXPANDED, SSCI, A&HCI

E-mail frequency: Weekly Monthly

Set as shown

Save your history to the server

8. PUBMED SEARCH – Search PubMed for all possibilities of the professor's name. Enter date ranges starting from last publication date listed in CV to present necessary. Enter “___” as a keyword. Run search and capture all citations using Zotero.

9. SET UP PUBMED ALERTS – Save search to create alert, sign in and save search again to set up alert. Set up as follows:

Appendix D. Tracking Sheet.

Citation Collection Tracking Sheet

Faculty Name: _____

Department: _____

Total Citations: _____

Fill in the box with the color highlighter you are using for each type of citation found.

<input type="checkbox"/> 2007 Citations					Total Unfound: _____
Name	Date	Start Time	End Time	Unfound Citations	Notes

<input type="checkbox"/> Google Scholar					Total Unfound: _____
Name	Date	Start Time	End Time	Unfound Citations	Notes

<input type="checkbox"/> Targeted Searching					Total Unfound: _____
Name	Date	Start Time	End Time	Unfound Citations	Notes (include database names)

Student QC Check: _____
Name and date

in CV folder: _____
in ? folder: _____

<input type="checkbox"/> Librarian Searching					Total Unfound: _____
Name	Date	Start Time	End Time	Unfound Citations	Notes (include database names)

Librarian QC Check: _____
Name and date

in CV folder: _____
in ? folder: _____

<input type="checkbox"/> Manual Entry					Total Unfound: _____
Name	Date	Start Time	End Time	Unfound Citations	Notes