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University of Utah
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NTC Quarterly Report
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Executive Summary

STAFF CHANGES

None.

CLASSES TAUGHT

PUBMED® CLASSES

NTC taught four sessions of the hybrid class PubMed for Trainers; the in-person locations were: San Francisco, CA; Seattle, WA; Honolulu, HI; and Detroit, MI. NLM taught one session of PubMed for Trainers in Bethesda, MD.

NTC delivered one session of the online class "PubMed for Librarians" in March 2014. PubMed for Librarians consists of five 90-minute segments taught via Adobe Connect; participants can choose to attend any of the segments that interest them. The five segments are: "Introduction to PubMed"; "Medical Subject Headings (MeSH)"; "Automatic Term Mapping (ATM)"; "Building and Refining Your Search"; and "Customization - My NCBI."

In the March session, we changed the "Customization - My NCBI" class format to follow a "Watch One, Do One" class technique. Participants first watched the presenter demonstrate live, and then performed the hands-on exercises on their own during a specified period of time (as opposed to the previous format of having the participants "follow along" with the presenter). We notified participants several days before the class to let them know they should download and print the handout in advance. The class included an exercise after each major topic; exercises were 3-5 minutes in duration. Based on the feedback in the evaluations, it appears that the format change was a success and should be continued in the future.

TOXNET® CLASSES

NTC taught one session of TOXNET and Beyond in San Francisco, CA on February 27, 2014.

NTC delivered Module 2 of the new online TOXNET class called "Discovering TOXNET: From Paracelsus to Nanotechnology (Module 2)" from March 3 - 25, 2014. (We delivered Module 1 in October/November 2013). Module 2 covers the following databases: Hazardous Substances Data Bank (HSDB); Household Products Database (HPDB); Integrated Risk Information System (IRIS); LiverTox; Toxics Release Inventory (TRI); TOXMAP® and Haz-Map.

The class is taught as a hybrid asynchronous / synchronous class. During the first three weeks of the class, participants work independently at a time of their choosing; in the fourth week the class meets together for a 1-hour synchronous session.

The asynchronous class included short video tutorials as well as tutorials using "Guide on the Side," which allows participants to view the tutorial instructions side by side with the live site. Participants were required to hand in a "discovery exercise" related to each database. The discovery exercises required students to find answers without being told the exact steps to take in the database. We were pleased with the quality of the answers given to the discovery exercises; in many cases participants provided screen shots and added thoughtful and creative information to their answers.

In the synchronous session, we reviewed the discovery exercises and divided the group into small breakout groups to work on a research question. Due to the large number of

participants, we offered two synchronous sessions on March 25 at different times of the day. Seventeen participants attended the morning and 14 participants attended the afternoon session.

Based on the feedback received, two action items for future classes will be considered:

1. Synchronous Session: In the future, we will look at making the synchronous session optional, since we noted from the evaluation comments that some participants found this useful and some did not.
2. Breaking into Additional Modules: To give the class participants even more flexibility, we are adjusting the content into smaller modules. Participants will be able to "pick and choose" which databases they wish to explore, and CE credit will be granted for the sections they complete.

We have now completed both modules of the online "Discovering TOXNET" class. Based on our experience with the class, the evaluation results, and the number of participants, we believe the online format is a successful delivery method for teaching TOXNET and reaching more participants across the country than is possible with the in-person classes. The use of the "Guide on the Side" tutorials will allow us to quickly update the class to reflect the new TOXNET interface when it comes live in the Summer of 2014.

TEACHING WITH TECHNOLOGY

Sharon Dennis, Kay Deeney from the Pacific Southwest Region, and Jessica Van Der Volgen taught an in-person version of the "Teaching with Technology: Tips, Techniques and Tools" class at the Hawaii-Pacific Chapter of the Medical Library Association Annual Meeting on April 4, 2014 at the John A. Burns School of Medicine, University of Hawaii, Honolulu, HI. The class was worth 4 hours of MLA CE credit.

To accommodate the Annual Meeting schedule, the class was taught in two 2-hour segments. We met in a computer classroom to allow for hands-on exercises. In the morning, we presented information about adult education principles and distance learning best practices. In the afternoon, we gave an overview of our favorite online learning tools, followed by a one-hour hands-on session.

The hands-on session featured three "stations" organized by theme: presentation tools; tutorial and mind mapping tools; and screencasting tools. Three computers were available for each station. Participants spent 20 minutes at a station before rotating to a different station. The three instructors each stayed at one station to assist participants with hands-on activities. This method worked well to give participants a chance to try a variety of different tools in a short period of time.

NCBI DATABASE CLASS

Diane Rein, Ph.D., delivered the online course "Fundamentals of Bioinformatics and Searching" from February 10 – March 21, 2014. Participants who completed the online coursework successfully, as evidenced by earning full Continuing Education credits, were eligible to apply for the 5 day in-person workshop called "A Librarian's Guide to NCBI", which was held in Bethesda, MD from April 7-11, 2014. Six participants from this Fundamentals cohort elected to attend the "Librarian's Guide" class. An additional 13 participants from the Fall 2013 cohort attended the Librarian's Guide class.

Potential participants filled out a fundamentals course online application form. The form asked them to specify what they hoped to gain from the class, and to commit to the time needed to complete the coursework. Diane Rein, Sharon Dennis, and Janet Zipser formed a committee to select candidates. From a total of 70 applicants, we selected 23 participants. One participant dropped out of the class a few weeks after it began due to

lack of time to complete the course work.

The course was delivered using Moodle. Course materials were updated to reflect new developments in the field and changes to the NCBI databases. The seven lectures and accompanying assignments were released one at a time throughout the course. Releasing the information in a defined sequence of interrelated lectures, readings, and exercises was an important part of the course's structure to build bioinformatics expertise.

The assignments were a particularly important part of the course; they were designed to ultimately connect the biology to the data and their organization at NCBI.

The participants in the class had less experience with teaching and with bioinformatics than prior classes. In general, the class participants started slowly with the initial Molecular Biology Vocabulary exercise, but rapidly caught up with the skill level exhibited by previous class participants. In addition, the participants performed equally well or, in some cases, better on the subsequent exercises than the more experienced librarians in previous offerings.

Since the less experienced librarians in this class successfully completed the course, we believe that the content and organization of the "Fundamentals" course represents a core set of skills that is appropriate for training the general population of health sciences librarians.

TECHNICAL CHALLENGES

Due to improvements to the Adobe Connect server load balancing settings, we experienced minimal technical difficulties during online sessions in this quarter.

OTHER ACTIVITIES

PUBMED REGIONAL UPDATES

From November 2013 – February 2014 NTC and NLM trainers delivered one hour PubMed Update webinars to all of the NN/LM regions. In the fourth quarter, we delivered a PubMed Update for the Pacific Northwest Region on February 19, 2014. During the webinars, we reviewed new features of PubMed (most notably the PubMed Commons feature), demonstrated a few features that are not new but that might have been missed by participants, and answered questions. The webinars were well attended and well received. We plan to repeat the updates in OY3.

PUBMED FOR TRAINERS USERS' GROUP

The PubMed for Trainers Users' Group met twice in the fourth quarter. There were 24 attendees on February 14 and 21 attendees on March 14. There was no April session scheduled due to heavy teaching and traveling schedules of the NTC staff.

In addition to the NTC trainers attending the session, several NLM staff members attended. We find their presence a great selling point for the Users' group because they provide additional background information and support for attendees.

Training Events

TABLE 1. Training Sessions

Session Content	Start Date	End Date	City/State	Trainers	Activity Conducted In-person	Activity Conducted Remotely	# Participants
Discovering!TOXNET/Tox!Part 2/2014	3/25/2014 12:00:00 AM	3/25/2014 12:00:00 AM	Online	Sharon Dennis, Rebecca Brown, Jessica Van Der Volgen	Y	Y	25
PubMed for Trainers	3/5/2014 12:00:00 AM	4/3/2014 12:00:00 AM	Honolulu, HI	Sharon Dennis, Rebecca Brown, Jessica Van Der Volgen	Y	Y	19
PubMed for Trainers	3/6/2014 12:00:00 AM	3/27/2014 12:00:00 AM	Seattle, WA	Sharon Dennis, Rebecca Brown, Jessica Van Der Volgen	Y	Y	17
PubMed for Librarians - MeSH	3/10/2014 12:00:00 AM	3/10/2014 12:00:00 AM	Online	Jessica Van Der Volgen	N	Y	28
PubMed for Librarians - Automatic Term Mapping	3/17/2014 12:00:00 AM	3/17/2014 12:00:00 AM	Online	Rebecca Brown	N	Y	31
PubMed for Trainers	3/18/2014 12:00:00 AM	3/27/2014 12:00:00 AM	Bethesda, MD	NLM Trainers	Y	Y	10
PubMed for Librarians - Building and Refining Your Search	3/24/2014 12:00:00 AM	3/24/2014 12:00:00 AM	Online	Jessica Van Der Volgen	N	Y	22
PubMed for Librarians - Customization My NCBI	3/31/2014 12:00:00 AM	3/31/2014 12:00:00 AM	Online	Sharon Dennis	N	Y	21
PubMed for Trainers	4/1/2014 12:00:00 AM	4/24/2014 12:00:00 AM	Detroit, MI	Sharon Dennis, Rebecca Brown, Jessica Van Der Volgen	Y	Y	17
PubMed for Trainers	2/6/2014 12:00:00 AM	2/26/2014 12:00:00 AM	San Francisco, CA	Sharon Dennis, Rebecca Brown, Jessica Van Der Volgen	Y	Y	17
Fundamentals of Bioinformatics and Searching	2/10/2014 12:00:00 AM	3/14/2014 12:00:00 AM	Online	Diane Rein, Sharon Dennis	N	Y	23

Teaching with Technology	4/4/2014 12:00:00 AM	4/4/2014 12:00:00 AM	Honolulu, HI	Sharon Dennis, Kay Deeney, Jessica Ven Der Volgen	Y	N	17
Toxnet and Beyond	2/27/2014 12:00:00 AM	2/27/2014 12:00:00 AM	San Francisco, CA	Rebecca Brown, Jessica Van Der Volgen	Y	N	9
PubMed for Librarians - Introduction	3/3/2014 12:00:00 AM	3/3/2014 12:00:00 AM	Online	Rebecca Brown	N	Y	29

Cancellations

No classes were canceled this quarter.

Self-paced e-learning Products

Tutorials and videos created by NTC trainers for Module 2 of the "Discovering TOXNET" class were posted to NTC's web site under the "Tutorials and Recordings" section. The videos covered the following topics: Hazardous Substances Data Bank (HSDB); Household Products Database (HPDB); Integrated Risk Information System (IRIS); LiverTox; Toxics Release Inventory (TRI); TOXMAP and Haz-Map.

We produced two short videos for publication on the NTC blog. Rebecca Brown created a short video entitled, "My NCBI and Links Display." The video demonstrated how to turn on the MeSH links display in My NCBI. Jessica Van Der Volgen created a short video showing the new "Sort by Relevance" feature in PubMed. The blog videos will also be added to the NTC "Tutorials and Recordings" page.

PUBMED FOR TRAINERS CLASS

A 21 question pre- and post-test was administered for the "PubMed for Trainers" class. The average scores for all classes are listed below.

NTC PubMed for Trainers class:

*Pre-test: 70%

*Post-test: 85%

NLM PubMed for Trainers class:

*Pre-test: 68%

*Post-test: 79%

PUBMED FOR LIBRARIANS CLASS

Short four question pre- and post-tests were administered for the "PubMed for Librarians" class. The average scores are listed below.

NTC PubMed for Librarians class:

*Pre-test: 60%

*Post-test: 93%

DISCOVERING TOXNET CLASS

A 15 questions pre- and post-test was administered for the "Discovering Toxnet" class. The average scores are listed below.

NTC Discovering Toxnet class

*Pre-test: 73%

*Post-test: 91%

NTC PUBMED FOR TRAINERS EVALUATION RESULTS

In the fourth quarter, NTC taught four PubMed for Trainers classes. A total of 86 participants registered; 62 of them took both the pre and post-tests; and 65 filled out the evaluation.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, presentation skills and responsiveness to questions:
High (95%); Good (5%)

Participants rating of whether they acquired knowledge and skills they can use:
Agree (95%); Somewhat Agree (5%)

Problems with technology:

No problems (85%); Trouble getting connected (15%); Trouble hearing (3%); Trouble Seeing the Screen (1%)

Length of Adobe Connect Sessions:

About the right length (81%); Somewhat too long (17%); Somewhat too short (2%)

Felt encouraged to participate in remote sessions:

True (94%); False (6%)

Most Helpful Parts of the Course

*Knowledgeable instructors

*Modeling instructional design techniques

Least Helpful Parts of the Course

*Not enough exercises

*Rapid design results were too generic

Additional Comments

*"The class was a gigantic mixture of individuals with different types of experience. Some were incredibly knowledgeable about PubMed, while others had little or no experience. I felt that the instructors did an amazing job at teaching everyone despite these differences. The class was still challenging for those with experience, but still easy enough for the new people to understand. Prior to this course I had almost no experience. Now I feel more confident in my ability to use this database and to be able to help others."

*"With tighter budgets it becomes impossible to attend conferences and keep current in our profession. It has been a while since I've taken any courses (2 yrs) and I really enjoyed the interaction and content, speed of course, etc. Keep this type of instruction around, it's critical to our professional development."

*" It would have been more appropriate if the groups were formed based on the library type that the librarians were from (academic librarians with academic librarians - could be further divided into medical schools vs. nursing/undergrad, hospital librarians with hospital librarians)."

Overall Rating: "A" (89%); "B" (11%)

NLM PUBMED FOR TRAINERS EVALUATION RESULTS

In the fourth quarter, NLM taught one PubMed for Trainers classes. A total of 10 participants registered; 8 of them took both the pre and post-tests; and 9 filled out the evaluation.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, presentation skills and responsiveness to questions:
High (92%); Good (8%)

Participants rating of whether they acquired knowledge and skills they can use:
Agree (89%); Somewhat Agree (11%)

Problems with technology:
No problems (78%); Trouble getting connected (11%); Trouble Seeing the Screen (11%)

Length of Adobe Connect Sessions:
About the right length (87%); Somewhat too long (11%); Somewhat too short (2%)

Felt encouraged to participate in remote sessions:
True (89%); False (11%)

Most Helpful Parts of the Course

*Group sessions

*Bloom's taxonomy and writing learning objectives

Least Helpful Parts of the Course

*In-person session was too short

Additional Comments

"The 2-week time span was a bit hectic for my schedule -- I have an intense fulltime job and the class was on top of my regular work duties. For me, once a week over 4 weeks would have worked better -- I would have been able to go over the material more slowly and digest it better."

Overall Rating: "A" (89%); "B" (11%)

NTC PUBMED FOR LIBRARIANS EVALUATION RESULTS

NTC taught one series of the PubMed for Librarians online synchronous class during the fourth quarter. The class was taught in five independent segments. The classes had an average attendance rate of 66%. A total of 198 participants registered for at least one segment; 131 participants attended the segment they registered for; and 124 filled out the evaluation questionnaire for the segment.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, and responsiveness to questions:
High (88%); Good (11%); Fair (1%)

Participants rating of whether they acquired Knowledge and skills they can use:
Agree (83%); Somewhat Agree (16%); Somewhat Disagree (1%)

Most Helpful Parts of the Course:

*Clarity of the instructor

*The exercises

*The presenter's shared screen going in to PubMed in real time

*Searching with the NLM Catalog

*My NCBI collections

*See one/do one exercises with handouts

Least Helpful Parts of the Course:

*A copy of the slides presented at the session would be helpful.

*Screen shot fonts are too small and blurry.

*Information too basic

*Too slow in some parts and too fast in others

Additional Comments:

*"I would have liked more search examples that the presenter has worked on in the past. Or search question that were difficult to answer."

*"Thank you so much for doing this. Rebecca and her colleagues did an excellent job, especially with bad weather disrupting internet transmissions for some attendees."

*"Thank you. This was the most informative of the PubMed sessions I have attended."

*"NTC can always be relied upon for high-quality content and presentation."

Overall Rating: "A" (80%); "B" (17%); "C" (3%)

DISCOVERING TOXNET EVALUATION RESULTS

The online TOXNET class called "Discovering TOXNET: From Paracelsus to Nanotechnology (Module 2)" ran from March 3 – March 25, 2014. The course evaluation period ended April 4, 2014. Module 2 covers the following databases: Hazardous Substances Data Bank (HSDB); Household Products Database (HPDB); Integrated Risk Information System (IRIS); LiverTox; Toxics Release Inventory (TRI); TOXMAP® and Haz-Map. Of the 34 participants who signed up to attend the synchronous session, 31 attended. Of the 45 participants who originally registered for the class, 25 completed the class and earned CE credit.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, and responsiveness to questions:
High (95%); Good (5%)

Participants rating of whether they acquired Knowledge and skills they can use:
Agree (99%); Somewhat Agree (11%)

Most Helpful Parts of the Course:

*Guide on the Side tutorials

*Discovery exercises

*The Adobe Connect session

*Excellent instructors

Least Helpful Parts of the Course:

*Too much covered in a short time

Additional Comments:

*"It would be helpful to have a summary document or flowchart, indicating what each database is used for, that would help integrate the information for visual learner."

*"Really liked the way that this course was organized and that we had to do assignments/exercises and the synchronous session. I would definitely take future classes that were set up like this one."

*"I loved the fact that the assignments were all there from the beginning and we could work on them at our own pace. I am a one person librarian and never know when I will have the time. The live session was actually challenging for me because patrons kept coming in with requests. Thank goodness for hand signals and a very talented volunteer. Great course. Thanks!"

Overall Rating: "A" (73%); "B" (23%) "C" (4%)

NTC TOXNET AND BEYOND EVALUATION RESULTS

NTC taught one session of TOXNET and Beyond in San Francisco, CA. The class consisted of seven librarians, and two researchers from the California Department of Public Health.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, and responsiveness to questions:
High (100%)

Participants rating of whether they acquired Knowledge and skills they can use:
Agree (100%)

Most Helpful Parts of the Course:

*Exercises.

*Instructors well organized and knowledgeable.

Least Helpful Parts of the Course:

*ChemIDPlus

*Already familiar with some information

Additional Comments:

*"Not sure how to do it but if there was some why of creating a narrative thread in the class following cases or examples through the various databases. Additional suggestions: incorporate more exercises and do not short cut reviewing the answers."

*"Instructors were really well prepared. I liked that that broke up the didactic part of lecture/demo with a wide variety of hands-on exercises. It allowed me to play around and discover more about the databases. It was an excellent survey course of toxicological resources."

Overall rating:
"A" (100%)

FUNDAMENTALS OF BIOINFORMATICS AND SEARCHING EVALUATION RESULTS

Consultant Diane Rein taught one session of Fundamentals of Bioinformatics and Searching, facilitated by NTC staff. The course was taught online, with 23 students participating in the class. Of those, 22 received full CE credit for completing the course.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, and responsiveness to questions:
High (91%); Good (8%); Below Average (2%)

Participants rating of whether they acquired Knowledge and skills they can use:
Agree (82%); Somewhat Agree (18%)

Most Helpful Parts of the Course:

- *Lecture/demo, hands-on exercises, and posting of answer sheets
- *Feedback from the instructor
- *Molecular vocabulary

Least Helpful Parts of the Course:

- *Understanding changes in the field and databases
- *Prefer one due date per week.

Additional Comments:

"Diane is an OUTSTANDING instructor. Not only did I become a better librarian, I also became a better teacher. Thank you for reinvigorating my natural sense of wonder!"

"This is probably the best online CE course I've taken. I felt very committed to completing the material, and I really do feel like I learned things that I'll be able to take back to my library and start using. I'm really looking forward to continuing my learning at the Librarian's Guide to NCBI course in a few weeks."

Overall rating:
"A" (68%); "B" (27%) "C" (5%)

NTC TEACHING WITH TECHNOLOGY

Sharon Dennis, Kay Deeney from the Pacific Southwest Region, and Jessica Van Der Volgen taught an in-person version of the "Teaching with Technology" class at the Hawaii-Pacific Chapter of the Medical Library Association Annual Meeting on April 4, 2014 at the John A. Burns School of Medicine, University of Hawaii, Honolulu, HI. The class was worth 4 hours of MLA CE credit and had 17 participants.

The evaluation results for the fourth quarter are as follows:

Instructor knowledge, preparation, and responsiveness to questions:
High (97%); Good(3%)

Participants rating of whether they acquired Knowledge and skills they can use:
Agree (92%); Somewhat Agree (8%)

Most Helpful Parts of the Course:

*Demonstrations and hands-on

Least Helpful Parts of the Course

*Would have liked printed PowerPoint rather than online

Additional Comments

*"I am very impressed with the NN/LM trainers. Their courses are very well organized and presented. I am confident that any time I schedule for these courses will be well spent, and I know I will always learn something useful."

Overall rating:

"A" (100%)

NTC Web site

Matthew Steadman added TOXNET tutorials to the "Tutorials and Recordings" page of the NTC web site.

MLA Educational Clearinghouse Activities

No activity this quarter.

Collaboration with NN/LM staff

Activities related to the National Training Registration Page (NTRP) system in this quarter included working with WebSTOC to reduce email errors and fixing several bugs (classes were closing too soon; the display in "manage scheduled classes" did not match the attendance report display; and cancelations were not processed correctly.)

Matthew Steadman progressed with a project to link the registration system to the Moodle registration, so that participants will automatically be registered for Moodle after signing up for a class using the NTRP. We anticipate the project to be completed in the first quarter of OY3.

In addition, Matthew Steadman created two video tutorials on the use of the NTRP and posted those on the staff wiki. He will present the tutorials to NN/LM staff and ask for feedback at the Web-DEV meeting in May 2014.

Marketing and Promotional Activities

During the fourth quarter, the NTC published 23 blog posts, keeping with the goal of two posts per week. There were 9,544 views of the blog during the quarter, with 3,578 views in March 2014, the greatest number of monthly views on record. The majority of views are for the homepage, followed closely by views to the Tutorials & Recordings page.

At the end of the quarter, NTC had 137 likes on Facebook (up from 121 in January), and 218 followers on Twitter (up from 175 in January). Interaction on Twitter continues to be positive with both followers and non-followers favoriting and retweeting some of our tweets.

Other

None.