ROTARY SERVING HUMANITY

Rotary Club | Lincoln East

President– Barry

Spoke Newsletter
Wednesday May 23, 2018

Attendance: N/A   Attendance with make ups: N/A

Lincoln East Rotary Club web address: https://portal.clubrunner.ca/4424

Program Wednesday, May 30, 2018
Dennis Buckley—Past Editor, Neighborhood Extra
Program arranged by Wayne Casper

Program Wednesday, May 23, 2018
Dr. Steve Jones – On Line Teaching/Dept. of Animal Science,
Program arranged by Minnie Stephens

Steven J. Jones a native of Salt Lake City Utah and received a BS degree from the University of Utah. After receiving advanced degrees from University of Arizona (MS) and Purdue University, Steve joined the University of Nebraska on December 1, 1984 as an Assistant Professor of Animal Science, in 1991 he was promoted to Associate Professor and on July 1, 2001 he was made a full professor. He also holds a courtesy appointment in the Food Science Department. His current appointment is 85% teaching and 15% research, but his yearly reviews have always shown a higher percentage of teaching than his appointment. His current primary teaching responsibilities are an Animal Products Class, a Meat Technology Lab, Animal Biological Systems course and a graduate level course in Meat Animal Growth and Development. Over the years he has also led a Meat Industry Study Tour (Thirteen Years) and an International Study Tour to Australia and New Zealand (Seven Times) every other year. Steve's research focus is on understanding the factors that affect protein synthesis and degradation in muscle. He has been able to utilize information obtained in the lab about muscle growth in the Meat Animal Growth and Development Course he teaches. Steve advises approximately 25 undergraduate students per year and serves on numerous graduate student thesis and dissertation committees. He has been the primary advisor of 10 graduate students during his tenure at UNL. He has served twice as the advisor of the Block and Bridle Club, co-advises the Animal Science Ambassadors, has served for numerous years on the Undergraduate Teaching and Advisement Committee six of which as the chair, the Animal Science Graduate Committee, and on several educational committees in the College of Agricultural Sciences and Natural Resources.

A Rotary Thank You to Dr. Steve Jones an excellent presentation on On-Line Teaching at the University of Nebraska

Lincoln East Rotary Club
Meetings at Valentino's—70th & Van Dorn
Noon Luncheon starting @ 11:45 a.m.

May 23, 2018

3D Visualization and Virtual Reality in Animal Science

Educators in animal science departments and institutions across the United States face difficulties in obtaining meat carcasses for their anatomical meat science classes, as the carcasses are easily perishable, costly, and involve safety issues. Further, carcasses must be kept in low temperatures. As a result, carcasses are not easy to present to large groups of students because sessions must be conducted in coolers, which are typically compact, uncomfortable spaces that reach temperatures below 45º C.

Given these challenges and constraints, carcass anatomy classes are often forced to learn three-dimensional (3D) spatial relationships through 2D mediums such as textbooks and videos, ultimately impeding students' engagement in real-world immersive learning environments. In addition, even when hands-on real-world sessions are possible, distance and online learners are unable to attend and therefore fail to experience the learning that occurs in sessions with true physical meat models.

At the University of Nebraska-Lincoln, our team from the Department of Animal Science and the Nebraska Extension program set out to address these problems by developing an open repository of 3D virtual animal carcass simulations that is freely accessible to anyone. Our high-definition simulations are individually created using state-of-the-art 3D scanning technologies; we then upload them to an open platform library hosted on Sketchfab, an online platform that lets people publish, share, and discover 3D and virtual reality (VR) content. Here, we describe our project and its initial results.

Creating a Simulation- and VR-Based Solution

Many universities are beginning to house multimedia equipment for faculty and staff use in spaces such as media centers and innovation labs. In this project, our team of faculty members and research assistants are using hardware available through our university's central resources service. The equipment includes a high-resolution **Artec 3D scanner** and a high-performance computer with a dedicated graphics card.

Scanning and Editing

To begin this process, an operator places a portion of meat (a *specimen*) on a rotating table or a hook, depending on its size. The operator then scans the anatomical specimen using the Artec 3D scanner. This process captures the majority of the specimen's faces. When using a table, the Artec scanner and the accompanying **Artec Studio** software lets the operator capture the specimen's bottom face simply by flipping it over and resuming the scanning process. When using a hook, the user walks around the meat object while the software digitally builds a 3D model

Following the basic scan procedure, Artec Studio lets us edit, texture map, and truncate any unwanted objects or (rare) errors that the scanner might capture. Having the control of post-capture processing lets us create high-resolution models that accurately represent the meat object and cut. After this post-capture processing, we upload the models to Sketchfab, where they are available for students to view using any modern Internet browser. Figure 2 shows a 3D model of a beef brisket.

Unique Pedagogical Benefits Access and Engagement

Our solution's benefits are clear: it increases access to and engagement with learning experiences, which in turn expands the potential for learning, both on its own and in concert with other pedagogical models. Professors who teach in the **Nebraska Extension** program are asked to find methods for increasing student engagement, often through technology. The meat simulation flashcards were produced as part of this effort, with one of us (Ashu Guru) directing the team that produced this application. The application, which runs on iOS, Android, Windows, Linux, and macOS, was created for students interested in meat-judging competitions. The expected impact of this application is immense: students unable to access laboratory resources can now learn about beef anatomy and meat cuts on their mobile devices through the 3D simulation technologies. This technology is also affordable: students who were unable to purchase expensive paper-based and textbook materials can now access the required information using an affordable mobile application..

"Outstanding Police Office—2018"
Matthew Franken
Department of Lincoln Police–Criminal Investigations

The Lincoln East Rotary Club Members extend a genuine and heartfelt thank you to Matthew for his service to the city of Lincoln and its citizens.

Kenneth Koziol, Supervisor, Matthew Franken, Officer, Tammy Gebers, Union Bank, Dale Lloyd, Chairman, Jeff Bliemeister, Chief of Police

Special Guest

Al Schmid, chairman emeritus of American National Bank.

Al, (center) guest of Gene Roth (left) and Al was a past (long time ago) Voc Ag Student of Steve Grosserode. (right)

"What constitutes a successful man? He must possess these qualifications: honesty, ability, initiative, enthusiasm, tact, and sincerity."
Inaugural Address, 1913 Rotary Convention, Buffalo, New York, USA
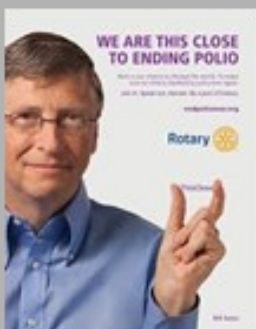
Anniversaries & Birthdays
Weeks of May 24—29
Birthdays:
NONE
Anniversaries
NONE

Happy Dollars

Dennis Duckworth	$ 3.00
Jeff Bliemeister	$ 1.00
Dale Lloyd	$ 1.00
Guest	$ 1.00
Guest	$ 1.00
Paul Horton	$ 5.00
Gene Roth	$ 1.00
Steve Grosserode	$ 5.00
Duane Tappe	$ 5.00
Dean Douglas	$ 2.00
Andrea Ahrens	$ 3.00
Wayne Casper	$ 4.00
Total	*$32.00*

Greeter Duty
Minnie Stephens—May
Duane Tappe—June

Make Ups (N/A)

Cashier Duty
May—Darrel Huenergardt
June—Gordon Bair
Contact Dick Cumming

Guests & Visitors

Merrilea Anderson	Steve Grosserode
Barb Roth	Gene Roth
Al Schmid	Gene Roth
Dr. Steve Jones	Speaker
Mike Jones	Gene Roth
Tammy Gebers	U.S. Bank
Judy Douglas	Dean Douglas
Jeff Bliemeister	Chief of Police
Matthew Franken	Police Office
Kenneth Koziol	Police Officer

Lincoln East Rotary Club—May Speaker Schedule

May 30, Dennis Buckley—Past Editor, Neighborhood Extra, arranged by Wayne Casper-