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CENTER for
SUPPLY CHAIN
RESEARCH

LEHIGH CENTER FOR SUPPLY CHAIN RESEARCH NEWSLETTER

November/December 2017



DIRECTOR'S WELCOME

Welcome to our December issue of the Lehigh Center for Supply Chain Research (CSCR) newsletter. Our focus in this issue is to reflect on our first Fall Forum that took place November 9 and November 10 at Lehigh University campus. More information about the Fall Forum can be found at: <http://cbe.lehigh.edu/cscr/events/fall-forum/>.

We have a recap of the presentations from two keynote speakers, Terrance Talbot and Cayce Roy, who presented on topics of Health Care and Supply Chain at the Fall Forum.

The second article reviews Yorke Rhodes' virtual presentation on blockchain. Yorke Rhodes, Global Business Strategist in Blockchain and Identity at Microsoft presented, *Blockchain and Its Impact on Supply Chains, Now and In the Future*.

Even though the focus of this issue is on the Fall Forum, we have already begun to make plans for our Spring Symposium, April 12 and April 13, 2018. For more information about our Spring Symposium and to register please check the following link

<https://cbe.lehigh.edu/centers/lehigh-center-for-supply-chain-research/spring-symposium-2018>

If you have any special topics and or speakers you would like us to invite, please let us know. I look forward to your feedback and suggestions.

Zach Zacharia, Ph.D.

Associate Professor of Supply Chain Management, Director, Lehigh Center for Supply Chain Research
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FALL FORUM RECAP

November/December Issue

THE FIRST ANNUAL CSCR FALL FORUM TOOK PLACE ON NOVEMBER 9TH AND 10TH, 2017.



On November 9th and 10th, Lehigh University hosted the **Lehigh Center for Supply Chain Research Fall Forum: Real World Supply Chain Solutions for Long Term Competitive Advantage**. The event took place in Iacocca Hall, at the Wood Dining Room, overlooking the Bethlehem fall foliage. Over a 110 registrants attended the forum to learn from academic and industry experts about improving supply chain for long-term competitive advantage. Keynote presentations illustrated innovative solutions to supply chain issues, while interactive workshops enabled participants to learn from each other. The opening reception, lunch session, and closing reception offered opportunities to network with industry peers, Lehigh University faculty, and students. “A better understanding of supply chain management issues has been shown to lead to direct improvements to the bottom line and attending these types of events is highly beneficial,” said Zach Zacharia, Ph.D., Associate Professor of Supply Chain Management at Lehigh University and Director of the Center for Supply Chain Research.

LEHIGH CSCR FALL FORUM
REAL WORLD SUPPLY CHAIN SOLUTIONS FOR LONG
TERM COMPETITIVE ADVANTAGE
Friday, November 10, 2017
Iacocca Hall | Wood Dining Room

- 7:00-8:00AM Registration and Full Breakfast**
- 8:05-8:15AM Welcome**
Zach Zacharia, Ph.D., Associate Professor, Director CSCR
Paul Brockman, Senior Associate Dean
Joseph R Perella and Amy M. Perella, Chair
David Welsh, Executive Director of Executive Education
- 8:15-9:00AM Session 1: The Road to Optimization**
Jack Levis Senior Director, Industrial Engineering,
UPS
- 9:00-9:45AM Session 2: Blockchain and Its Impact on Supply Chains, Now and In the Future**
Yorke Rhodes, Global Business Strategist, Blockchain & Identity
Microsoft
- 9:45-10:00AM Break**
- 10:00-10:45AM Session 3: The Healthcare Supply Chain: An Urgently Evolving Model**
Terrance Talbot, Vice President and General Manager
Siemens Healthineers, U.S.
- 10:45AM-11:30 PM Session 4: Parallels for the Health Care Supply Chain Today**
Cayce Roy, President, RCS Advisors, CEO, Standvast Healthcare Fulfillment.
- 11:30-12:30PM Buffet Lunch**
- 12:30-1:15PM Session 5: Predictive Analytics/BIG DATA: How Manufacturers Are Leveraging PA/BIG DATA to Improve Supply Chain Performance and Mitigate Risk?**
Gregory L. Schlegel, CPIM, CSP, Jonah Founder
Vice President and Principal, Shertrack LLC
- 1:15 – 2:00 pm Session 6: Information Technology as a Production Input– A Substitute or a Complement?**
David Zhang, Ph.D., Assistant Professor of Management



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- 2:00-2:15PM Break**
- 2:15-3:00 PM Session 7: Lean Six Sigma Implementation in Crayola**
Gary Wapinski, Vice President Manufacturing
Crayola, LLC
- 3:00-3:45PM Session 8: Panel Session- Stages of Omni-Channel Retailing**
Kim Jacobsen, Managing Director
JLL
Bob Silverman, Senior Vice President, Supply Chain & Logistics Solution
JLL
Jonathan Rudnick, VP, Projects, NJ Market,
JLL
Andrew Mele, Managing Director,
Trammel Crow Company
Carl Marcinkowski, Senior Vice President, Distribution and Logistics
Destination Maternity
- 4:00-4:15PM Closing Comments and Wrap-Up**
Zach Zacharia, Ph.D., Associate Professor; Director, CSCR
- 4:15-5:00PM Closing Reception**



The agenda for the Fall Forum 2017, including many acclaimed speakers, and interactive panel sessions.

Health Care and Supply Chain Spotlight

On November 10th, 2017 two speakers at the first annual CSCR Fall Forum focused on topics in Health Care Supply Chain. The first, Terrance Talbot, Vice President and General Manager, of Siemens Healthineers discussed “The Healthcare Supply Chain: An Urgently Evolving Model”. His abstract states:



The dynamics and economic realities of the rapidly morphing U.S. healthcare model is bringing necessary changes to both healthcare system procurement models, and supplier development and behavior. The healthcare delivery network that learns to adapt, and to innovate will have a distinctive edge as we evolve from 5,000 independent “hospitals” to perhaps 50-100 integrated healthcare systems. Waiting for the federal government to “light a path” could bring insurmountable financial pressure to those who fail to proactively adapt and innovate.

Talbot touched on new methods and global dynamics in the field such as the shift towards value-based reimbursement. Though this may provide numerous struggles for supply chain healthcare providers, tactics such as enterprise service agreements allow these companies to explore new opportunities to enable better outcome at a lower cost.

Cayce Roy, President of RC5 Advisors and CEO of Standvast Healthcare Fulfillment discussed “Parallels for the Health Care Supply Chain Today”. An excerpt from the abstract of this discussion reads:

Healthcare has an acknowledged need for immediate improvement with a growing concern for how it will adapt to impending changes. To solve this seemingly intractable dilemma, Healthcare must ask the right questions and take the lessons from Amazon, Google and Dell. The solution requires a complete transformation, starting with the clinician/patient needs and moving back to the manufacturers to create a truly lean supply chain. E-commerce fulfillment best practices and the latest technology innovations such as real-time closed loop systems, machine learning and algorithm driven change are required to greatly simplify the entire end to end process. Similar to the change that happened in retail, a complete transformation to simplify for the clinician/patient is needed on the most expensive element of our Healthcare system – the supply chain.



Roy started out by delving into the history of the retail store paradigm of the 90s and related these inefficient processes to those of hospitals today. During his work experience at Amazon in the early 2000's, Cayce Roy and his colleagues began to attempt at solving this inventory problem that translates across many industries in their supply chain departments, long before Amazon became one of the world's best supply chains. Roy explained how the challenges of the retail industry can shed light on creating more efficient systems for health care organizations in the United States, starting with ensuring the client's needs first.

This discussion of health care and supply chain was particularly beneficial to supply chain majors in the audience deciding on which concentration of the industry they will be entering. The integration of supply chain methods into the world of health care is promising for reducing US health care costs in the near future.

Highlights from Yorke Rhodes: Blockchain, The Dawn of a new Era

With the unique capabilities that overcomes key challenges in Supply Chain, blockchain has been viewed as the potential game changer for the industry. Blockchain is a new technology which enables what happens at each point in the chain to be chronologically recordable. It increases the visibility and security into supply chain management, but there are still some areas remained to be explored.

In Lehigh CSCR Fall Forum, a keynote speaker, Yorke Rhodes, discussed the challenge of blockchain in Supply Chain industry. Yorke Rhodes is a global business strategist of Microsoft and an adjunct professor from NYU. With over 20 years working experience across large enterprises such as Microsoft and IBM as well as startups in wireless, mobile, digital marketing and ecommerce, he has tremendous experiences of working on blockchain and looking at various levers to help mature and accelerate this exciting nascent industry.

The presentation is guided by two questions: "Can the use of blockchain enhance sustainability and humanitarian goals?" and "Can the qualities of blockchain unlock new opportunities in supply chain?" First, Rhodes introduced how did blockchain come out with the advent of technology revolution. In the past 10 years, we saw the emergence of client server database, cloud computing, bitcoin and the huge revenue made by Amazon in ecommerce. But it really was in 2015, the industry started to realize blockchain is very interesting technology which is a combination of inventions that had appeared before. Then, many firms started to apply blockchain—a novel record-keeping software- into their supply chain management. However, Rhodes pointed out this phenomenon will create a chasm between early innovators who have just embraced a technology and the mainstream companies. And he used TESLA electronic vehicle charging in different situation as an analogy to illustrate this chasm.



Hence, the next question becomes how to cross this chasm. Rhodes stressed that a user-sovereign, decentralized, distributed structure can help enterprises across the chasm. For instance, generating cryptographically secure transaction synchronized to a worldwide network that maintains a single, global ledger of the chronological state of ownership for all participants. In supply chain management, no matter you sell food or hardware product, it's very essential to have a universal



Yorke Rhodes used video streaming technologies to deliver his presentation since he was unable to be present at the Forum.

identifier that provides a unique identity for every physical object anywhere in the world and verify certain properties of physical products such as determining if a food product is organic or fair trade. Through unique identity, tracking provenance, custody of products within a blockchain becomes possible. Rhodes also pointed out that creating robust system among each point in the supply chain, transactions are transparent to everyone involved. Then he gave an example of Microsoft of how they apply blockchain to their supply chain management. For example, Microsoft has created unique identifier based on all the component parts for the Microsoft Surface. As all parts get a hash(digest) based on product serial number and all digest of parts are combined into one unique digest for the surface, all of its components are captured in a blockchain and its traceable. Therefore,

transparency is enhanced in each transaction and participants can access the information from multiple touchpoints throughout the word becomes possible.

At the end of the presentation, Rhodes wrapped up with a “private versus public” discussion on today’s blockchain. He pointed out that today’s public network has evolved to provide sufficient privacy and security. “A lot of the things we have to do in a private context because of the need for privacy through blockchain are able to be done in a public context.”

Attended the Forum but didn't complete a feedback form? Click on the anonymous survey to tell us how we can improve for the Spring Symposium:

https://lehigh.co1.qualtrics.com/jfe/form/SV_86ecRvFEdnEGNGB

Contact Us

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Register for the 2018 Spring Symposium now for a discounted rate!

<https://cbe.lehigh.edu/centers/lehigh-center-for-supply-chain-research/spring-symposium-2018>

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