Macro and Micro Trends in Fulfillment, Supply Chain and Logistics that are Opportunities for ISE(‘s)

Moderator: D. Scott Sink, Team Lead Columbus Mini-Region Chapter, and Director ILSS ISE @ OSU

Jim Tompkins, President, Tompkins International

Rick Wilkinson, Vice President, Logistics Services, Dollar Tree

Developed and Offered through IISE by Chapter #1 and developed cooperatively with the Council on Industrial and Systems Engineering and Jim Tompkins
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<th>Time</th>
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<tr>
<td>12:00</td>
<td>Tee Up: Carol Leblanc, IISE Conference Manager</td>
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<tr>
<td>12:03</td>
<td>Scott – Frame up the Webinar</td>
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<td>12:05</td>
<td>Jim, Macro</td>
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<td>12:25</td>
<td>Rick, Micro</td>
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<td>12:45</td>
<td>Q&amp;A time permitting and Scott Close out review coming attractions</td>
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Questions?
How We’ll Handle

Submit your questions via GoToWebinar interface. I (Scott) will see them and will insert them into the Webinar as appropriate and as time permits. All questions will be answered, not necessarily during the webinar but we’ll address all questions.
Chapter #1 Highlights—
IISE’s First Chapter (1949) and also the first Virtual IISE Professional Chapter

1. 196 Professional Members in Eastern Ohio but also from around the Country

2. Support, partner with the Youngstown State, Ohio University and Ohio State University Student Chapters.

3. Partner with the Industry Advisory Board, CISE, and the Young Professionals Group

4. Partner with our Dayton/Cincinnati Professional Chapter on our Annual IISE All Ohio Event and other things

5. 6 Timely, Valuable Webinars each year; topics developed from Voice of Member

6. 12 Monthly Memo’s help Members get to know each other and keep members aware of upcoming opportunities AND also provide Self-Help Features on personal and professional mastery

7. quarterly GoToMeeting small group calls with members that focus on topics of interest from ‘affinity groups’/segments of our members.
ISE and IISE for Life—how IISE supports you for your entire Career.....

You can get involved in Societies, Divisions and also ‘Affinity Groups’ like Young Professionals, Industry Advisory Board and the Council on Industrial and Systems Engineering.
Webinar Developed due to interest developed when CISE visited Ga Tech and the Physical Internet Center and also pull from Members of Chapter #1

Over 20% of our Members (196) in Chapter #1 are involved in Logistics and Supply Chain
SCOTT: UPS has been a long time member of the Council on Industrial and Systems Engineering and as such SC and Logistics has been a focus of our ongoing benchmarking and learning. This webinar was called for by a critical mass of our 196 members in Chapter #1.

JIM: Today, the leading organizations see SC Collaboration has advanced beyond a PRACTICE and a PROCESS to being a BUSINESS MODEL.

JIM: ISE’s need to step up on Global, Digital, Collaboration and Entrepreneurship, The pace of change in ISE is Unprecedented., Hang onto your hats and Make A Huge Difference

RICK: At the micro level (e.g. a within the DC focus), one is faced with the challenge of how and when to integrate emerging technologies and continuous improvement initiatives, balance this along with driving ongoing operational excellence, execution daily.

RICK: Making Things Better requires a lot of change leadership and management. Integrating emerging technologies (keeping up), driving continuous improvement, and also ensuring outstanding daily execution takes teamwork, lots of communication and coordination.

SCOTT: I wish I was starting my career over again, I’d go into Logistics and Supply Chain!!
Our Design for the Webinar:
Rick’s focus is at the ‘component’ (DC) level of the end2end SC

Jim’s going to zoom-out to the entire system. END2END, then Rick will Zoom-in
Macro, Global Trends In Supply Chain And Logistics that Industrial & Systems Engineers Can And Should Contribute To

James A. Tompkins, Ph.D.
Chairman and CEO, Tompkins International
Chairman and CEO, MonarchFx
a. Shifts in global sourcing and networks: Dynamic supply chains

b. Substantial growth in cross-border eCommerce: More diversified countries, sellers and buyers

b. Continued raising the bar for service: Post-click logistics

c. Digital supply chains:
   I. End-to-End: Plan, Buy, Make, Move, Sell, Distribute
   II. Innovation: IoT, eCommerce, Mobile, Cloud, Social, Visibility, Unichannel, Customer Experience, Analytics, Payment, AI
When two or more organizations work together to accomplish a mutually beneficial objective.

- 20 years ago SC Collaboration was first introduced as a PRACTICE of links working together as a chain.

- 10 years ago SC Collaboration evolved to the point of being a process, like Collaborative Planning, Forecasting and Replenishment (CPFR).

- Today, the leading organizations see SC Collaboration has advanced beyond a PRACTICE and a PROCESS to being a BUSINESS MODEL.
Two Types of Collaboration

- **Synergistic: The whole is greater than the sum of its parts**
  - Zika Virus: Biologist and Electronic Microscope
  - Each Supply Chain: Supply Chain and Material Handling

- **Economies of Scale: Size does matter**
  - Amazon Retail plus Amazon FBA
  - MonarchFx
### Characteristics of Different Types of Collaboration

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<th>Speed</th>
<th>Culture</th>
<th>Control</th>
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<tr>
<td>Synergistic Collaboration</td>
<td>Slow</td>
<td>Interactive, Patient</td>
<td>Poor: Herding of Cats</td>
</tr>
<tr>
<td>Economies of Scale</td>
<td>Quick</td>
<td>Hierarchical, Control</td>
<td>Dictatorship</td>
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<tr>
<td>Collaboration</td>
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Today’s Retail Collaboration

- Pre-Click Competition
- Post-Click Collaboration
  - Get Local Fulfillment
  - Highly automated, multi-tenant facilities
  - High Density Delivery
- Smarter Logistics
  - Quicker Logistics
  - Cheaper Logistics
  - Scalable Logistics
  - Global Logistics
a. Most entrepreneurship is technology based: 
**Need engineers**

b. All entrepreneurship demands Speed: 
**But engineers demand perfection**
Conclusion

a. ISE’s need to step up on Global, Digital, Collaboration and Entrepreneurship

b. The pace of change in ISE is Unprecedented.

c. Hang onto your hats and Make A Huge Difference
Questions?
Contact

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Videos

Supply Chain Revolutions
Responding to Digital Disruptions
http://bit.do/supplychainrevolutions

What is the MonarchFx Alliance?
http://www.monarchfxalliance.com/Thought-Leadership/Videos

More on SensorThink
http://sensorthink.com/

Tompkins Robotics
http://www.tompkinsinc.com/what-we-do/tompkins-robotics/
Supply Chain Micro Trends and Success Opportunities for Industrial and Systems Engineers
Goal: Build teams that significantly decrease cost and increase service through providing best-in-class technical services, innovations and emerging technologies.

Career:

- **VP Logistics Services** – Dollar Tree | Family Dollar
  - Engineering Services, Logistics Maintenance and Logistics Support functions
  - Network integration, network-wide continuous improvement, next-generation distribution facilities

- **Senior Director Engineering Services** – Walmart
  - All distribution center formats including general merchandise, food, e-comm, and future formats
  - Evaluated/developed new/emerging technologies

- **VP Fulfillment Operations/Supply Chain Engineering** – Neiman Marcus | Group
  - Specialty retail distribution and e-comm fulfillment

Education: BS Industrial Engineering – Texas A&M University
Agenda

Emerging Technologies

Continuous Improvement

Time

Change
Continuous Improvement

Foundational / Incremental

MAKE THINGS BETTER
Continuous Improvement

Time Value of Cost Benefit

Emerging Technologies

Continuous Improvement

Cost / Savings

Time
Emerging Technologies
Enterprise-Wide
Emerging Technologies
Appropriate Degree of Application

- Case Picking / Order Selection
- Putaway / Replenishment
- Receiving / Shipping

Manual ➔ Mechanized ➔ Automated ➔ Lights-Out
Change Leadership
Vision / Communication

(Science – (Jargon + Bullets)) / Relevance \( \times \) Passion = Understanding

Change Leadership
Teamwork / Relationships

HOW TO BUILD A LASTING RELATIONSHIP:
1. Cut on dotted line.
2. Rotate 180 degrees.

It's all about relationships.
Takeaways

Emerging Technologies

Game-Changers

Continuous Improvement

Foundational

Change Required for Success

Time
Upcoming Lunch and Learn Webinars:

- **12 September**—Steve Savoie, Manager IE, GM and Joan Tafoya, Sr. Principle Engineer, Intel, *Mastering the Transition from Engineer (Young Professional) to Leader/Manager (Mid-Career)*

- **14 November**—Rick Wilkinson, Sr. Director, Engineering Svc’s, Dollar Tree and Jim Tompkins, President, Tompkins and Associates, *Evolving Role of ISE in Supply Chain and Logistics (Micro and Macro Views)*

- **7 December**—Jared Frederici, The Poirier Group and Scott Sink, ISE at OSU. *Operational Analytics: case studies demonstrating how to build improved Measurement and Analysis Systems to support Integrated LeanSigma/Process Improvement Projects.*