

CONFERENCE PROGRAM



TOC INNOVATION SUMMIT
2023

A PATHWAY TO A SUSTAINABLE FUTURE

Learn the latest innovations on how organizations are leveraging the Theory of Constraints (TOC) for:

- Improving Flow and Throughput
- Enhancing Decision-Making
- Optimizing Resource Utilization to Improve Systemwide Productivity and Maximize Throughput
- Streamlining Project Management Timelines: On time, On Budget, and Within Scope
- Driving Ongoing Improvement

To Create a Pathway to a Sustainable Future

Join us on Sunday, October 8 at 1PM to Wednesday, October 11 at 4PM

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The Theory of Constraints International Certification Organization (TOCICO) is a global not-for-profit organization uniting companies, practitioners, consultants, academics, and students who seek the exchange and development of the Theory of Constraints (TOC) knowledge and who share a passion for win-win holistic thinking. With the world's largest repository of TOC content and with resources, certification, and conferences recognized worldwide, TOCICO is proud to be a primary source and catalyst for TOC knowledge.

TOCInnovationSummit.com

Keynote Speakers



Rami Goldratt

SPEAKER BIO Rami will share his thoughts and reflections on the advancements in TOC, respecting his father's desire that we not stand in his shadow, but rather to stand on his shoulders to advance TOC, and leveraging its ability to collaborate with all improvement efforts.



Sanjeev Gupta



SPEAKER BIO Sanjeev Gupta is Managing Director of Vulcan, operator of Africa's largest coal mine. Previously he has founded two software companies, Thru-Put Technologies and Realization Technologies. Thru-Put was a category leader in advanced planning and scheduling for complex manufacturers, and Realization has delivered more than \$7 billion of value to its customers for helping them finish their projects faster.



Ian Larsen



SPEAKER BIO Ian Larsen is the Head of Delivery and Productivity for WiseTech Global. Ian has over 35 years of experience building, selling and implementing software in manufacturing, supply chain, utilities and mining industries coupled with extensive Theory of Constraints experience. Ian holds a Bachelor of Management Studies, Majoring in Computer Science, from the University of Waikato (New Zealand).

Case Studies and Success Stories

Unleash Real-World Revelations and Success Stories in the Case Study Showcase track:

Immerse yourself in real-world applications of TOC in action, as companies who have implemented TOC highlight their remarkable achievements and tangible results. Gain valuable insights into their innovative strategies and learn how they have overcome challenges using TOC principles.

Case Studies and Success Stories



Achieving Results Fast & Sustainable

Presented by Ravi Gilani

SUMMARY The TOC community often wonders why TOC hasn't seen widespread implementation despite its proven success over the past 40 years. We must introspect and question our assumptions. Reading "The Goal" is just the beginning; the real challenge lies in translating that knowledge into successful implementation. As a community, we carry the responsibility of building upon Dr. Eli Goldratt's foundation and framework, which he generously provided before his passing in 2011. In today's fast-changing business landscape, companies demand rapid results, and our focus should align with that urgency. Drawing from my extensive experience of implementing TOC in various industry domains in India for almost 25 years, including automotive components, engineering, electronics, and many others, Ravi will share valuable insights. Remarkably, tangible bottom-line results were achieved in as little as one month in some cases. In about 85% of our assignments, cash flow, profits, and sales improved within 3 months, and in all cases, certainly within 12 months. While not all results sustained over extended periods, there have been outstanding success stories. For instance, a large \$6 billion steel conglomerate that we've been working with for the past 8 years not only survived but thrived. Another client, after nearly 50 years of existence, became debt-free during the recent Covid pandemic. Furthermore, some organizations have consistently improved over the last 17-20 years, continuously surpassing their previous achievements. Join Ravi as he delves into these success stories and explore the factors that contribute to sustainable results. Let's uncover the potential of TOC to drive transformative outcomes for your organization in today's dynamic world.

SPEAKER BIO Ravi Gilani is a globally renowned expert in evaporating cash constraints, with over 51 years of industry experience. He introduced TOC (Theory of Constraints) to Indian companies in 1998 and received the Lifetime Achievement Award from TOCICO for his outstanding contributions. Ravi has worked with various Indian and transnational organizations across diverse industries, including engineering, automotive, aerospace, and more. He is known for creating original concepts like Cash Velocity and Free Cash Score, benefiting many Indian companies through his weekly review process. Ravi shares his industry experience as a keynote speaker and workshop facilitator at international forums. He focuses on making organizations debt-free through innovative concepts, working towards contributing to a USD 5 trillion economy.

Case Studies and Success Stories

Case Studies and Success Stories



Turning Around Africa's Largest Coal Mine

Presented by Sanjeev Gupta

SUMMARY Join us for an exciting presentation by Sanjeev Gupta as he shares a compelling case study on Vulcan Mozambique, operator of the largest coal mine in Africa. With a total workforce of more than 17,000 people, Vulcan operates an integrated mine-to-port operation comprised of coal mining, beneficiation, transportation, and ship loading. Sanjeev will reveal how Vulcan achieved a remarkable feat of increasing profits at a \$2.5B mining company by an impressive 50%, even in the face of a challenging scenario where commodity prices fell by over 50%. All within a span of 9 months. You will not want to miss this opportunity to learn about the innovative solutions in mining, process manufacturing, logistics, equipment maintenance and plant shutdowns, and capital project execution; as well as the change management approach that enabled Mozambique's largest company to thrive in a tough market without any layoffs.

SPEAKER BIO Sanjeev Gupta is Managing Director of Vulcan, operator of Africa's largest coal mine. Previously he has founded two software companies, Thru-Put Technologies and Realization Technologies. Thru-Put was a category leader in advanced planning and scheduling for complex manufacturers, and Realization has delivered more than \$7 billion of value to its customers for helping them finish their projects faster.

Case Studies and Success Stories

Case Studies and Success Stories



Innovation in Technology Management in R&D Activities for Electronic Components Manufacturing Equipment

Presented by Masakazu Itakura & Hisataka Shindo

SUMMARY It is very important for factory management to improve the R&D efficiency of electronic component manufacturing equipment. But the project was sometimes delayed or canceled, so it wasn't as efficient. Each project was run in its own way and not optimally managed. Therefore, we wanted to establish a method suitable for manufacturing equipment R&D activities and innovate in technology management. Manufacturing equipment R&D activities has two steps: "Technology development" and "Manufacturing equipment design". "Technology development" is the step of establishing how to make electronic components with manufacturing equipment. "Manufacturing equipment design" is the step of designing, manufacturing and introducing equipment to the production line. We applied a CCPM-tuned approach to each step with different uncertainties. We have developed four principles that can be applied in common to each step. 1. The grounded plan 2. Visualizing the situation 3. Always communication 4. Anticipatory management In addition, appropriate practices such as PDPC (Process Decision Program Chart), milestone sheets, burndown charts, etc., were applied to each step. As a result, many projects were completed on time. However, there were organizational problems such as the inability to immediately add resources when signs of delays occurred. We will be responding to these problems using the TOC thinking processes.

Also, the solution applied to this case story will be explained by a consultant supporting Izumo Murata. The solution is based on CCPM and Set-Based Concurrent Engineering (SBCE) with relevant application tools. SBCE is a cornerstone of Lean Product Development to tackle reworks in R&D project and is utilized in this solution. Actually, the combination of CCPM and SBCE enhanced stability in managing product development projects, and we have achieved results at Japanese manufacturing companies.

SPEAKER BIO Masakazu Itakura works at Izumo Murata Manufacturing Co., Ltd., an affiliate of Murata Manufacturing Co., Ltd., whose main business is research and development, production, and sales of electronic components. As an engineer involved in R&D for electronic component manufacturing equipment, Masakazu specializes in electrical metrology and software. This year, the equipment they developed won an in-house technical development award. In his leisure time, he enjoys going camping with his wife and kids and spending time in nature. Hisataka Shindo is Chief Consultant of Goal-System Consultants Inc. He has been supporting Japanese manufacturing companies since he started his career as a consultant in 2007. Currently, he is focusing on improving

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how to manage product development projects applying CCPM with other methodologies and improve solution. He has just organized a group for research in product development management with clients in Japan.

Case Studies and Success Stories



THOMSONPRESS
What We Promise, We Deliver

Breakthrough Performance Results and How We Achieved Them

Presented by Cushrow Jassawala & Ravi Gilani

SUMMARY Join us in this illuminating presentation as we delve into the remarkable journey of Thomson Press, a leading player in the Indian sub-continent's commercial printing and allied services sector. Established in 1967, Thomson Press has not only harnessed its state-of-the-art infrastructure, highly skilled team, and cutting-edge processes but has also embraced the power of Theory of Constraints (TOC) principles.

Discover how Thomson Press, operating from 4 factories in the National Capital Region, has leveraged TOC methodologies to elevate its operations to new heights. From offset printing services to automated binding, finishing, and distribution management, their dynamic approach has yielded impressive results. Witness their achievements, including becoming debt-free after two decades, maintaining employee stability during challenging times, and experiencing substantial improvements in various key performance indicators.

Through this presentation, explore the numbers behind Thomson Press's success story: profits increased by a staggering 292%, throughput soared by 41%, and sales surged by 29%. The journey also encompasses enhancements in accounts receivables, inventories, and operational free cash flow, all contributing to a robust operational turnaround.

Join us to glean insights from Thomson Press's journey, understand the strategies that drove their remarkable growth, and discover how they harnessed TOC principles to achieve these remarkable outcomes.

SPEAKER BIO Cushrow Jassawala is the Executive Director & Chief Operating Officer, Thomson Press. He heads the Commercial Print business with 4 manufacturing units. He is responsible for strategy, building organizational capability, ensuring operational excellence and constantly renewing the organizations readiness to embrace the future. After completing his Post-Graduation in management, he worked 23 years with the Tata Group in the White Goods business, and for the last 15 years with Thomson Press. As an evangelist in promoting the "Theory of Constraints" within Thomson Press, he made 'Reliability' as a Decisive Competitive Edge for Thomson Press. In the last 4 years, he has moved on to improving Free Cash Flows, and growing the Profitability of the organization. His goal is to make Thomson Press into a Values based organization, firmly embedded in delivering Customer Delight,

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through continuous improvement as a way of life. Thomson Press received the Visionary Award under the Value Enhancer Theme, for its efforts in “Becoming the World’s Most Reliable Printer” from Frost and Sullivan forth Economic Times- India Manufacturing Excellence Awards. Ravi Gilani is a globally renowned expert in evaporating cash constraints, with over 51 years of industry experience. He introduced TOC (Theory of Constraints) to Indian companies in 1998 and received the Lifetime Achievement Award from TOCICO for his outstanding contributions. Ravi has worked with various Indian and transnational organizations across diverse industries, including engineering, automotive, aerospace, and more. He is known for creating original concepts like Cash Velocity and Free Cash Score, benefiting many Indian companies through his weekly review process. Ravi shares his industry experience as a keynote speaker and workshop facilitator at international forums. He focuses on making organizations debt-free through innovative concepts, working towards contributing to a USD 5 trillion economy.

Case Studies and Success Stories



Lessons from a Decade: Successful and Challenging TOC Implementations

Presented by Bimlendra Jha

SUMMARY Discover the invaluable insights of an esteemed expert in Theory of Constraints (TOC) implementations, gleaned over years of experience. Join us for an enlightening presentation that emphasizes the key to success: identifying and optimizing constraints to unlock hidden potential in any system. Learn how to foster a culture of continuous improvement and gain buy-in from all levels of your organization, ensuring lasting positive change. Avoid the pitfalls of rigid application by understanding the importance of customization and adaptation to suit your unique context. Discover the power of a holistic problem-solving approach that considers the interconnectedness of all components. This presentation promises to equip you with practical knowledge that will transform your approach to TOC implementations. Don't miss this opportunity to enrich your understanding and take your organization to new heights. Join us and be part of this transformative experience!

SPEAKER BIO Mr. Bimlendra Jha is a B. Tech in Ceramic Engineering from IIT Varanasi and a Post Graduate Diploma in Business Management, Marketing and Finance from XLRI Jamshedpur. Presently, he is Managing Director of Jindal Steel and Power. Prior to this, he has been the MD & CEO of Ambuja Cement Limited and associated with Tata Steel Ltd. for nearly three decades where he has held multiple leadership roles including CEO Tata Steel UK looking after operations in UK, Sweden, and Canada and Executive Director on the Board of Tata Steel Europe. He has

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been actively involved in strategic portfolio restructuring and supply chain transformation in Europe and market development, sales and brand management, and innovation in construction practices in India. This includes his high profile rescue of British Steel from imminent closure, the design of new processes in Marketing, Value Selling, Channel Loyalty programs and launch of new product and service concepts using TOC. It has now been a couple of decades since Bimlendra invented an integrated improvement framework for Tata Steel, branded ASPIRE T3, combining the best practices of TOC, TPM and TQM. Many of its outcomes were subsequently recognized as leading best practices by a jury that granted the Deming Grand Prize to Tata Steel.

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Integrating TOC, Lean and Six Sigma – A Case Study of Transformational Change

Presented by Max Krug & Jeff Bryant

SUMMARY This session presents a compelling case study on transformational change in a high mix, low volume job shop environment, showcasing significant operational performance improvements achieved through an implementation project. We'll delve into the "Design Sprint" process used to overcome resistance layers and achieve organizational alignment. Key Performance Indicators (KPIs) that drove desired behaviors will be discussed, and insights into existing obstacles and a roadmap to operational excellence will be shared. The journey to success involves three phases: 1) Defining the current state - "What to Change", 2) Envisioning the future state - "What to Change To", and 3) Designing the future state - "How to Cause the Change". Attendees will also learn about the actions taken to achieve operational stability, including implementing Simplified Drum-Buffer-Rope, Lean, and Six Sigma tools. The session concludes with a comprehensive discussion of lessons learned from the implementation, highlighting key strategies that supported objectives and actions that hindered progress. Remarkable results achieved over nine months include reducing order lead-time from 18 weeks to 8 weeks, decreasing customer order acknowledgement time from 4 weeks to 24 hours, improving on-time delivery performance from 40% to 92%, reducing work-in-process inventory by 60%, and increasing total plant productivity by 40% without additional capital expense or operating cost increment.

SPEAKER BIO Max Krug is a seasoned change management professional with 38 years of operational expertise, including 20 years of consulting across various sectors. He specializes in improving financial and operational performance by applying Theory of Constraints, Lean Enterprise, and Six Sigma concepts. Max holds multiple certifications and has trained and coached operations management personnel to implement world-class

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techniques. With experience in diverse industries, his results-driven approach has led to increased throughput, profitability, and product availability, along with reduced lead-time and inventory. Max earned a Bachelor of Science in Industrial Engineering from Alfred University and a Master's in Business Administration from St. Bonaventure University.

Jeff Bryant is an experienced professional in machining and manufacturing operations. His focus on continuous improvement has led to exceptional results, optimizing processes, and driving operational excellence. Jeff's commitment to sharing knowledge has led him to train others within the facility. Joining ABC in 2016, he made significant contributions to the machining department, resulting in enhanced operational performance. Jeff collaborated with Max Krug and Future State Engineering in 2018, refining his skills in TOC, lean methodologies, and operational excellence. In early 2022, he recognized an opportunity to lead a change in the organization and played a pivotal role in turning around the company's financial performance. Jeff's expertise and commitment to driving results have made him a respected professional in the manufacturing industry, showcasing the power of hands-on experience and continuous learning.

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High Performance Culture with Theory of Constraints

Presented by Ian Larsen

SUMMARY WiseTech has used the Thinking Processes and applications of TOC since 2006 to grow from a 50 person organization based in Australia to become the global leader in logistics software with over 3000 staff with 18,000 customers in 180 countries. Ian will share how WiseTech has grown with minimal management and hierarchy using a high-performance culture.

SPEAKER BIO Ian Larsen is the Head of Delivery and Productivity for WiseTech Global. Ian has over 35 years of experience building, selling and implementing software in manufacturing, supply chain, utilities and mining industries coupled with extensive Theory of Constraints experience. Ian holds a Bachelor of Management Studies, Majoring in Computer Science, from the University of Waikato (New Zealand).

Case Studies and Success Stories

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Visual Full Kitting and the 5 Focusing Steps

Presented by Etienne Lecerf

SUMMARY Through several real-life examples in industrial companies, Etienne will show how the idea of Full Kitting is simple – don't produce or assemble if you don't have everything you need – but the practice is more difficult. Etienne will demonstrate how simple visual management boards can be used to manage the full kitting process and increase the output of a factory. The implementation may present challenges, but by using these boards, you can synchronize factories and projects based on the full kitting philosophy. Additionally, Etienne will present several case studies from different industries to illustrate the successful application of this approach, where Lean and TOC ideas are combined. By attending this session, you will gain valuable insights into how to apply the 5 focusing steps collaboratively and easily, resulting in boosted throughput and shortened lead times.

SPEAKER BIO Etienne Lecerf is Managing Consultant in Marris Consulting based in Paris, France. Lecerf has worked with Philip Marris for over seven years. He has applied the Theory Of Constraints in production and project environments dozens of times in France, Spain, Poland, Mexico, United Kingdom, the Czech Republic, Germany and Burkina Faso. He was trained as an Industrial and Mechanical Engineer at Arts et Métiers ParisTech, France. He has participated in numerous consulting assignments for prestigious Engineering To Order companies. Lecerf is also experienced in other types of project environments such as Aeronautical MRO, New Product Development, or IT projects. His clients work in various industries including Aeronautics, Oil & Gas, Medical Devices, Software Development, Semiconductor Production, Rail Transport, Mining...

Case Studies and Success Stories

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How North Dakota Achieved Its Strategic IT Goals using TOC

Presented by Alfred Mycue & Shawn Riley

SUMMARY In this presentation, Shawn Riley, the Co-Founder of Bisblox and previously the Executive Director of NDIT, along with Alfredo Mycue, the Co-Founder of ReEngine Consulting, will discuss the remarkable transformation of NDIT from a traditional state agency with a 1980's mindset into one of the most advanced information technology departments in the public sector. Under Shawn's leadership, the organization utilized a suite of TOC tools, techniques, and principles to align itself with the goal of empowering people, improving lives, and inspiring success through world-class government experiences via information technology. This engaging presentation recounts how Shawn, fresh from his thought leader position at the Mayo Clinic, faced challenges in deploying his strategic vision. Despite unmitigated support from Governor Burgum, who recruited him to public service, Shawn needed to transform his staff into a 'can do' team capable of achieving ambitious goals. The Theory of Constraints and the process of ongoing improvement became instrumental in aggregating the talent and experience of state workers, transforming the agency into a proactive, undaunted outfit capable of significant accomplishments. From cyber-securing all public schools and state agencies to transitioning nearly every state agency to telework during COVID, and laying the foundation for routine use of AI and robotics process automation in government service, NDIT successfully created a networked vision for the entire state, positioning itself as the central resource for IT. This inspiring tale of transformation is one that simply must be shared.

SPEAKER BIO Alfredo Mycue is the Co-Founder of ReEngine Consulting, LLC. His firm enables educational institutions and public sector organizations to attain operational excellence through continuous improvement. Alfredo is a retired Army Lieutenant Colonel and Airborne Ranger. Alfredo is a graduate of West Point, the Command and General Staff College, holds a Master in Diplomatic History from Tulane University, and has a master's in public Affairs from the LBJ School of Public Affairs at the University of Texas, where he now teaches a Government Quality and Improvement course at the Governor's Center for Management Development. He is a Ph.D. candidate at the Trachtenberg School of Public Policy and Public Administration at George Washington University. He has the Project Management Professional (PMP) credential, is certified as a Theory of Constraint's Jonah, and is a Master Six Sigma Black-Belt (MSSBB) in efficiency and quality.

Shawn Riley is a lifelong technologist and entrepreneur, Shawn started his first company at the age of 16. He has worked as a thought leader for companies like IBM and the Mayo Clinic. His career has included massive change and transformation initiatives spanning multi-billion-dollar organizations, holding roles as Chief Executive Officer, Chief

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Information Officer, Chief Technology Officer, and Information Management Officer. In 2017, Shawn was appointed by Governor Doug Burgum to lead the state of North Dakota's Chief Information Officer and became a cabinet member. Today, he serves as the co-founder of Bisblox, a Venture Studio building companies around the world. Shawn is always looking to connect with others who have a "we can change the world" attitude, as he strives to be a servant leader and improve lives, empower people, and inspire success.



Ongoing Improvement of Ramp up in "Astrum Super" Sales in India from 28 kt in FY'20 to 131 kt in FY'23 in Three Years by Applying TOC Principles

Presented by Pravesh Narang & Pravin Kumar Wilson Purty

SUMMARY Astrum Super is a brand of Tata Steel and was launched in 2019. The application demand of this product is very stringent in dimension and specification, leading to higher throughput. The market is not a constraint for this product. This is a story of an ongoing improvement journey to increase production year on year from the inception, driven by a relentless commitment to enhancing efficiency, refining processes, and meeting the exacting demands of the market.

SPEAKER BIO Pravesh Narang is a distinguished Metallurgical Engineer, holding a prestigious degree from the Indian Institute of Technology, Varanasi. With an illustrious career spanning over 26 years, Pravesh has honed his expertise in various facets of the industry, including Manufacturing, TQM, Technology, Automotive Marketing, and Business Excellence & New Projects. His commitment to excellence is underscored by his certifications in Theory of Constraints and Six Sigma Black Belt methodologies.

Notably, Pravesh has been a global ambassador for the Indian Steel Industry, representing it at the esteemed World Steel Association for an impressive four years. In his current role as the Chief of Scheduling & Delivery, he plays a pivotal role in the success of Tata Steel (TSL). Pravesh is responsible for meticulously executing finished good orders in Steel Melting and Rolling Mills across three manufacturing sites, ensuring the timely and complete delivery of products to discerning customers. His dedication to achieving on-time, in-full (OTIF) deliveries has earned him a reputation as a key player in the steel industry.

With an unwavering commitment to excellence and a wealth of experience to draw upon, Pravesh Narang is a captivating speaker who shares his valuable insights and expertise to inspire and empower others in the world of metallurgy and business.

Pravin Kumar Wilson Purty is a distinguished professional with a remarkable background in engineering and business leadership. Holding a degree in Mechanical Engineering from the prestigious Indian Institute of Technology,

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Kharagpur, and an MBA from the renowned Indian Institute of Management, Bangalore, Wilson has forged an illustrious career spanning an impressive 25 years. His expertise extends across diverse domains, including Marketing, Sales, TOC Taskforce, Corporate Strategy & Planning, and Business Excellence & New Projects.

For a notable four-year tenure, Wilson represented the Indian Steel Industry at the esteemed World Steel Association, contributing significantly to global steel industry discussions. Currently, he holds the esteemed position of Chief of Marketing for the Branded Product & Retail vertical at Tata Steel Limited. In this capacity, Wilson plays a pivotal role in serving the needs of small and medium-sized customers. His wealth of knowledge and experience make him an invaluable speaker, offering profound insights into the world of marketing, strategy, and the steel industry. Wilson's expertise is bound to captivate and enlighten audiences seeking inspiration and expertise in these domains.

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Innovation: Implementing Critical Chain the BAE Systems Way

Presented by René Nibbelke, Simon White & Andy Watt

SUMMARY Discover the remarkable progress achieved by BAE as we collaboratively strive to create sustainable improvements. This presentation will showcase the journey of BAE, highlighting their impactful efforts and the measures taken to ensure lasting positive changes. Join us to learn from their experiences and gain insights into their successful approach towards achieving sustainable transformation.

SPEAKER BIO René Nibbelke started his Engineering career in the field of Cockpit Design and flight simulator experimentation. Since joining BAE Systems in 1996, he has a 26-year career in Strategy, Transformation, Process Solutions, System Assurance, Governance, Project, Programme and Portfolio Management on some of the most complicated high-value projects within BAE System's order book. His current role as Global Head of Business Change & Future Project Management Capab.

Andy Watt is a founding member of the Theory of Constraints International Certification Board (TOCICO) and a Chartered Fellow of CILT. He is the owner and driving force behind Goldratt UK, increasing the exposure of TOC in the UK. He was the TOCICO Implementor of the Year in 2018. Andy, a Mechanical Engineer for ten years prior to starting his consulting career, Andy held several senior management positions within the Aerospace and Defence industry. He specialized in the implementation of TOC, Lean, Six Sigma, and Taguchi in production and R&D environments. This included Hunting Engineering, AWE Aldermaston, and Lockheed Martin. In 2000 Andy joined AGI UK, training coaching and consulting to companies. With the help of Martin Powell and Oded Cohen, he formed his own company Levee LLP

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in 2004 and took over Goldratt UK in 2007 to provide TOC consultancy across the UK. Since 2004 it has grown to more than 20 employees. Over the last twenty years Andy and Goldratt UK have implemented TOC in hundreds of organizations including Bentley, Honeywell, Bombardier, Eurostar, Siemens, and many more SMEs. Andy is also a Director of Tenon Engineering and RopeWeaver – a TOC based software company.

Simon White works for BAE Systems Australia as Manager of Project Controls. His current role is to 'Deliver Reliable and Repeatable Project Control' across a multi-billion dollar portfolio of +220 defense projects, spread over Air, Maritime and Software/Cyber domains. He was part of a successful application of CCPM to an Aerospace MRO environment, and this has been shared widely within the BAE business globally, as well as via TOCICO Global Conference, CCPM Global Conference, Project Control Expo UK and Aus, and more.

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So, You Think You know?

Presented by James Powell

SUMMARY Using the Thinking Processes at COGITA, ViAGO, and then WiseTech, has taught us that most people only use half (at best) of the TP, and that the TP is incomplete in a few key ways. James will share how the subtleties of the TP are refined and extended at WiseTech to support hypergrowth.

SPEAKER BIO James Powell is a Productivity Expert at both WiseTech Global and ViAGO, an investor and an entrepreneur. With a background in corporate information technology, since 1994 James has worked exclusively with breakthrough effectiveness technologies, including Theory of Constraints (TOC) and Behavior-based Performance Management. James is certified in the constraint management solutions developed by the Avraham Y Goldratt Institute. In 1995 James founded ViAGO, and first met WiseTech Global in 2005, when WiseTech executives attended ViAGO's Black Belt in Thinking Boot Camp. James has worked with WiseTech since 2012 designing the PAVE Productivity software, and codifying the TOC at the Speed of Light implementation approach. James has acquired several small businesses and deployed the PAVE software and other TOC Experts to improve those businesses for him.

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From Constraints to Conquests: A Case Study of Harkesh Rubber's Transformational Journey

Presented by Darshan Shah

SUMMARY In this captivating presentation, embark on an extraordinary exploration of Harkesh Rubber's awe-inspiring transformation. Witness the journey from a company constrained by obstacles to one that soared to remarkable heights of success. Attending Ravi Gilani's TOC India in 2021 must have been an enriching experience. Being a member of TOCICO (Theory of Constraints International Certification Organization) further demonstrates our commitment to deepening our knowledge and expertise in the field of TOC. Both experiences highlight our dedication to continuous learning and staying connected with the global TOC community.

1. Reduced Work-in-Progress (WIP) from 15 days to 2 days, ensuring more efficient production flow and manageable inventory levels.
2. Journey from 35% to 80% On-Time Delivery In Full (OTIF) enhancing customer satisfaction and reliability.
3. Implemented Daily Huddle meetings to ensure proactive management and resolution of any job-related issues, preventing any job from getting stuck and promoting a smooth workflow throughout the organization.
4. Implemented weekly review meetings to enhance decision-making capabilities and empower the team with the authority to make timely and effective decisions, leading to improved operational outcomes.
5. Identified and addressed operational constraints through the application of the Theory of Constraints (TOC), allowing for targeted improvements and optimized processes.
6. Witnessed a notable throughput jump of 9%, indicating improved efficiency and productivity within the operations.
7. Experienced a profit jump of 15%, showcasing the positive impact of the implemented changes on the financial performance of Harkesh Rubber LLP.

SPEAKER BIO A passionate and visionary entrepreneur, with over 18 years of expertise in critical rubber components for industrial precision use, Darshan Shah is a second-generation leader committed to carrying forward his family's rich legacy. The family business began its journey in 1983 with just two hand-press machines operating from a rented space in Goregaon. This humble start laid the foundation for what would later become Harkesh Rubber LLP, incorporated in 2015. As the head of a mid-size firm, Mr. Shah has successfully managed to strike a balance between catering to the growing needs of the industry and being agile enough to make rapid internal changes when required. He firmly believes in constant improvement, striving to do things better, faster, and bigger. Mr. Shah's ultimate vision is to put India on the world map for its quality products. Continuing his journey of personal and professional growth, Darshan Shah is currently pursuing the prestigious Stanford Seed Graduate program, indicating

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his unwavering commitment to acquiring knowledge and expanding his entrepreneurial skills. He has served as the ex-president of the Leo Club of Juhu, highlighting his dedication to serving others and making a positive impact in the community. His notable achievements include an invitation to one of the top three clubs in the United States.

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Using TOC to Restart, Sell and Stabilize Allied Healthcare Products During Bankruptcy

Presented by Kobus van der Zel & Akash Amin

SUMMARY Allied Healthcare Products, a long-standing medical product manufacturer, was facing closure, employee layoffs, and minimal recovery for creditors. However, through effective leadership, critical TOC thinking, investment banking, restructuring attorneys, and liquidity support, the company managed to retain most employees, continue manufacturing important products, and provide substantial payouts to unsecured creditors. Overcoming challenges such as market demand analysis, environmental issues, labor shortages, supply limitations, and medical regulatory hurdles, the professionals successfully executed a turnaround using TOC and a 363 bankruptcy sale. Previously experiencing macroeconomic challenges and operational inefficiencies, the company utilized a TOC demand-pull simulation to identify additional value and cash flow. Collaborating with its advisors, Allied retained 70 employees and secured a \$2.5M loan. This new liquidity allowed them to restart operations, negotiate with vendors, and streamline production. Despite retaining only 33 union workers out of 82, Allied achieved significantly higher monthly production per worker post-WARN notice. In May 2023, they secured a stalking horse bidder, Flexicare, for over \$8.5M, resulting in over four times the projected liquidation return. The bankruptcy court approved the sale on June 30th, 2023, ensuring job retention, minimum lease payments to the landlord, substantial repayment to trade vendors, and continued availability of key life-saving products in the marketplace. Allied Healthcare's success demonstrates how a detailed demand-pull supply chain simulation can generate significant cash flow, either preventing bankruptcy or facilitating career advancement.

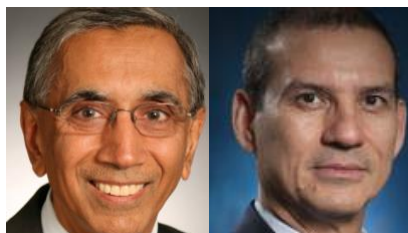
SPEAKER BIO Kobus van der Zel a senior consultant at MorrisAnderson, operating as a Certified Turnaround Professional (CTP) in companies facing liquidity or transition challenges. Kobus holds mechanical engineering and MBA degrees, and is a qualified TOC Jonah (1999). Since 1999 he has tied his turnaround fees to monthly profitability or cash flow results, in order to create a pull system for truly understanding the obstacles for higher business and

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people performance. Coaching and interim CEO engagements over a span of 16 years in South Africa, Canada and the USA has enabled him to summarize the forces preventing higher performance in his book *The Forces of Progress* (www.lulu.com/spotlight/globalturnarounds). “When I engage with a new underperforming company I am always surprised at how so many weak people could have gathered in one company” Kobus says. “Eli helped me to understand that people are inherently good, and that it was the company that made the people weak – which is great news, because it means the process can be reversed to make them strong again!” Kobus’ system for people development is at the root of his turnaround strategies by using the online accelerator www.YourSensei.org – which combine the best of TOC, lean manufacturing and people development processes to ensure optimal cash flow generation when it is needed most.

Akash Amin, CTP, is a Director at MorrisAnderson and holds the positions of CRO and President at Allied Healthcare Products. With an extensive background in mergers & acquisitions, transaction advisory services, and restructuring, he delivers structured and pragmatic solutions through comprehensive financial analysis. Akash’s representative work experience includes successfully managing divestitures and implementing cost-cutting measures to prevent bankruptcy filing for one of New York’s largest solar developers and equipment suppliers. He has also excelled in negotiating workout arrangements, recovering over \$30M of impairment loss for a Fortune 100 client. Additionally, Akash showcased his management expertise in leading the operational wind-down and RCM of a publicly traded US healthcare company with hospitals and surgical centers in Texas and Arizona. Furthermore, his proficiency in preparing statistical models for successful bankruptcy litigation resulted in significant savings of approximately \$1M for the client.

Case Studies and Success Stories



Theory of Constraints Meets Scalpel: Innovate Oral & Maxillofacial Surgery Practice

Presented by Gary Wadhwa & Danilo Sirias

SUMMARY This presentation highlights the transformative impact of the Theory of Constraints (TOC) in Oral and Maxillofacial Surgery (OMS) settings, using two case studies – a private and a public clinic. In both instances, the TOC application resolved operational inefficiencies, enhancing patient access to care, reducing the wait time to see the specialist, improving the quality of clinical outcomes, and resulting in better financial results for both organizations. TOC helped streamline patient flow and resource utilization resulting in better staff satisfaction and retention. Patient satisfaction across both practices shows significant improvements. These cases signal the wide-ranging utility and

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benefits of TOC in OMS practices. Given the demonstrated effectiveness, we urge TOC experts to consider championing its broader implementation in healthcare. These case studies provide robust evidence of TOC’s impact and practical insights for refining operational performance.

SPEAKER BIO Dr. Gary Wadhwa is a Board Certified Oral & Maxillofacial Surgeon with extensive experience in the field. He completed his Oral & Maxillofacial Surgery training at Montefiore Hospital, Albert Einstein College of Medicine in Bronx, NY, and has served as an Attending at prestigious institutions like St. Peters Hospitals, Ellis Hospital, and Beth Israel Hospital in NY. With a career spanning over two decades, he was the former CEO and President of a group specialty practice in NY from 1994 to 2015. Dr. Wadhwa holds an MBA from UT at Knoxville, TN, and has undergone additional training in System Dynamics at MIT, Health System Management at Harvard Business School, and Entrepreneurship and healthcare innovations at Columbia Business School. Committed to expanding access to Oral & Maxillofacial Surgery care, he is currently engaged in a meaningful project to provide healthcare services to underserved populations in inner city and rural areas through non-profit Community Health Centers.

Dr. Sirias has a master’s degree in Industrial and Systems Engineering and a Ph.D. in Business Administration from The University of Memphis. He is also a certified Critical Chain Project Manager, TOCFE trainer, and TOCICO thinking process implementer. Dr. Sirias is a Professor in the Department of Management and Marketing at Saginaw Valley State University. Dr. Sirias’ research interests include how the Theory of Constraints can improve patient flow in Emergency Departments, Inpatient Units, Operating Rooms, and Outpatient Clinics. He is co-author of the book: *Smash the Bottleneck: Fixing Patient Flow for Better Care*. In 2019, he was selected Practitioner of the Year by the Theory of Constraints International Certification Organization (TOCICO) for his work in education. In 2022, Dr. Sirias received a \$245,000 grant from the Michigan Health Endowment Fund to apply the Theory of Constraints to improve access to behavioral health clinics.

Case Studies and Success Stories



The Yin-Yang of a Critical Chain Implementation: A Case Study of Piloting CC in Pharmaceutical NPI Projects

Presented by Simon Wallis & Ian Heptinstall

SUMMARY This presentation will share GSK’s, a global pharmaceutical company, experience of piloting CC on new product introduction projects on their Barnard Castle site in NE England. Starting with a pilot on two projects starting in March 2022, GSK added another project in late 2022, and in early 2023 made critical chain the default scheduling

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and execution method at that location. TOC practitioners may not be surprised that critical chain improved the flow of project work. Nor was the presenter. What was a pleasant surprise was how the formal technique reinforced and helped to drive a range of behavioral changes that helped improve not only the performance of the project team, but also the confidence of the senior project stakeholders in the ability of the project team.

SPEAKER BIO In his early career, Simon spent 8 years in microbiology laboratories in the brewing industry, before moving into Quality Assurance in the Pharmaceutical industry at GSK in 1999. He has worked in a number of roles at GSK, including laboratory management and business Improvement, before moving into project management where he has worked for the last 13 years in both New Product introduction, Site Strategy, and PMO functions. These roles involve liaising closely with multiple teams both on and off-site and leading a team of project managers and planners to project manage the technology transfer and commercialization of new medicines. Simon has an MSc in Industrial Pharmaceutical Sciences from the University of Manchester and is currently in the final year of an MSc in Industrial Project Management at the University of Birmingham – where he first came across critical chain. Simon lives in the northeast of England. He enjoys hill walking and is a daily gym goer and he and his wife go sea swimming every weekend throughout the year (which can be a bit of a challenge in January in the UK’s North Sea!)

Ian teaches on a project management MSc program at the UK’s University of Birmingham. Before moving into academia, he spent 35 years managing projects and procurement, primarily in the chemicals and construction sectors. In addition to his teaching, he advises and coaches managers looking to change and improve project management and procurement.

Case Studies and Success Stories



What are the unique insights from Theory of Constraints to make reliable commitments and better decisions?

Presented by Dr Alan Barnard

SUMMARY The traditional view is that Theory of constraints is based on two principles.

#1: One or Few Constraints limit the performance of all Systems

#2: To achieve highest , Net Profit, ROI and Cash Flow, managers should focus improvements/investments on better exploiting and elevating Constraint(s)

However, there are two other critical principles of Theory of Constraints.

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#3: You cannot ignore constraints when making commitments

#4: How you consider and allocate constraints (the RULES you use), can make a BIG difference on the system performance.

In this presentation, Dr. Alan Barnard will share insights on the consequences to managing projects, inventory and making product mix decisions when constraints are not fully considered when making commitments and, if it is misallocated in planning or execution.

SPEAKER BIO Dr. Alan Barnard is a leading decision scientist and Theory of Constraints (TOC) expert with almost 20 years of experience working directly with Dr. Eli Goldratt, the creator of TOC. As the CEO of Goldratt Research Labs (USA), Alan focuses on using advanced technologies and decision sciences to develop Apps and Decision Support methods, enabling organizations to achieve more with less time. Under his leadership, Goldratt Research Labs has collaborated on innovation and research projects with renowned Fortune 500 companies like Microsoft, Cargill, BHP, Tata Steel, Amazon, and others, along with public sector organizations like Utah Governor’s Office and UN WFP. Alan has held prominent roles in various organizations, including past-President of the South African Supply Chain Society SAPICS and past-President of TOCICO. His significant contributions have been recognized through prestigious awards, including inclusion in the 2020 Marquis Who’s Who Global Listing, membership in the Forbes Technology Council, and the TOCICO Lifetime Achievement Award. He is an accomplished author and frequent presenter on Decision Making in a Complex World and Theory of Constraints at international conferences. Alan’s latest book, “The Bottleneck - How to resolve our attention crisis,” is currently in progress. As the chief architect of the award-winning HARMONY Decision Maker, Change Simulator, and Change Maker series of Decision Support Apps, Alan continues to shape the landscape of decision science and TOC. Please let me know if you need any further information or details.

Case Studies and Success Stories



Slow Down, to Speed Up Your Program. Large Program Case Study

Presented by Robert Bolton

SUMMARY A major Australian bank was undertaking a significant transformation program named the Pinnacle Program. This program encompassed multiple goals and involved various stakeholders across the business. Robert was appointed to lead the Concurrent Deal Implementation Project (phase 2A). This Case Study outlines how the utilization of Clarity, identification, and reduction of multi-tasking, along with the implementation of the TaskFlow measurement tool, positively and collaboratively addressed variable scope challenges.



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SPEAKER BIO Robert Bolton is an esteemed international leader with over 35 years of experience in complex problem-solving, innovation, project management, and Theory of Constraints (ToC). He has navigated the full project life cycle in various sectors, including IT, software, financial services, infrastructure, oil and gas, mining, construction, and consulting. Robert's significant roles include positions at Leighton Contractors, Land Rover, FMC (Chevron - Wheatstone), and Argyle Diamonds. He is a pioneer in Critical Chain Project Management (CCPM) and co-authored "The Executives Guide Breakthrough Project Management." Robert holds degrees in Civil Engineering and an MBA, and he continues to be a driving force in the industry, actively contributing to the Singapore Mining Club and the Australia Turnaround and Transformation (AusTTa). Notably, Robert achieved remarkable results, increasing sales by over four times in a three-year period by effectively applying Five Focusing Steps and Kaizens at the Micro Level within the supply chain.

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Uncover the powerful synergy between TOC and other process improvement disciplines in the Complementary Applications of TOC track: Explore how TOC enhances supply chains, revolutionizes manufacturing, optimizes healthcare practices, drives technological advancements, and extends its impact beyond traditional boundaries

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Reverse-Innovating Personal Health using Theory of Constraints

Presented by Lars Axelson

SUMMARY In this presentation, Lars will share his journey of seeking smarter solutions in both professional and personal realms, driven by the 80:20 principle. From enhancing personal health and martial arts performance to battling weight issues, he has discovered practical "flying pig" injections.

Using The Five Focusing Steps, Necessity Logic validated with the Categories of Legitimate Reservations, and ViAGO's BBiT approach, he will demonstrate how TOC can accelerate innovation compared to trial and error or chance discoveries. Lars will reverse-engineer these solutions, acknowledging the risks of assuming that TOC would have made the innovation process easier when already knowing them. However, prior testing validates their effectiveness.

TOC is invaluable in navigating personal health challenges, debunking assumptions, and simplifying complex concepts for practical use. Join Lars as he analyzes problems through TOC's lens, providing you with principles to apply in your own endeavors.

SPEAKER BIO Lars Axelsen is an IT enthusiast with a diverse educational background, including a BA in Economics, Graduate Diploma in Marketing, and an MA in IT Organization. Although he encountered Theory of Constraints (TOC) relatively late in 2014, at a Gartner conference in Berlin, he quickly immersed himself in the TOC world. Lars's journey involved extensive reading, including books like "The Phoenix Project," watching Goldratt's videos, and attending TOCICO conferences. He further enhanced his knowledge by completing programs like The Jonah Program from AGI and BBiT from ViAGO.

Lars is passionate about TOC and aspires to become an IT-Jonah who challenges assumptions, asks the right questions, and uses TOC principles like TP/BBiT to develop innovative solutions for IT challenges. He's had the privilege of learning from numerous unofficial mentors within the TOC community, including Robert Bolton, James Powell, Sanjev Gupta, Eli Schragenheim, Philip Marris, and Richard Zultner.

With a long-standing career in Corporate IT, Lars's primary goal is to apply TOC to address core challenges in second-line IT support organizations. Currently, he serves as an area manager of on-site IT support for the IT unit of Regional National Healthcare, overseeing a team of 40 professionals supporting a vast network of healthcare facilities. Prior to this, Lars gained valuable experience during his 17-year tenure at global manufacturer Danfoss A/S, where he held various IT roles, including helpdesk, process management, project management, and senior management in IT Operations and Cyber Defense.

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Hans Rosling and Eli Goldratt: Best Friends that Never Met

Presented by Humberto Baptista

SUMMARY Throughout Eli Goldratt’s career, his goal was to teach the world to think clearly. The book ‘The Choice’ illustrates how and why clear thinking is crucial for anyone seeking a full life. However, thinking clearly alone is not enough. If our thinking is based on incorrect facts, our conclusions will also be wrong, even if the logic is perfect. This is similar to a great factory fed with shoddy raw materials – it will be challenging to produce finished goods. Hans Rosling, a Swedish physician dedicated to International Public Health issues and a famous lecturer on public health matters, was one of the most popular and prolific TED presenters. In his final work, ‘Factfulness: Ten Reasons We’re Wrong About the World – and Why Things Are Better Than You Think,’ Rosling was shocked by the volume and breadth of wrong facts used by many important organizations (WHO, IMF, UN, etc.) and their personnel in decision-making. He not only updates essential facts about the world’s situation but also presents ten reasons why we tend not to base our thinking on current and correct facts. Combining Rosling’s techniques to scrutinize the facts we use and Goldratt’s techniques to scrutinize our thinking based on these facts, we can aspire to real effective thinking. In this presentation, Humberto covers the basis of Goldratt’s view on thinking and science, introduces Rosling’s work, lays out the ten obstacles to clear thinking, and provides strategies to overcome them. Finally, the presentation explores some of the farther-reaching implications of the synergy of these two giants.

SPEAKER BIO Humberto R. Baptista is a Synergist and the CEO of Vectis Solutions. He is a recipient of the TOCICO Lifetime Achievement Award (2019). Humberto has served as a strategic advisor to various organizations, including Neogrid and Goldratt Group among others, and was a member of the TOCICO Board of Directors. He has extensive experience in leading Viable Vision projects across multiple industries, such as Consumer Goods, Retail, manufacturing, projects, and services. Additionally, he has taught TOC VV Application Experts and Project Leaders worldwide. Humberto is also the creator of the Comprehensive Management methodology. His current interests encompass Comprehensive Management, TOC Principles, Implementations by S&Ts, advanced TOC Finance, TOC Retail, TOC NPO (Government, Health, and Education), and TOC4E.

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Sustainable Self-Improvement The Importance of Applying Goldratt's Thinking Tools in One's Personal Life

Presented by Lauren Clark

SUMMARY Innovation isn't confined to the workplace or factory floor; it begins right at home, in our personal lives. The Theory of Constraints (TOC) has undeniably revolutionized organizational improvement, but its true power lies in individuals. After all, organizations don't think—people do. Sustainable innovation can only thrive when individuals are proficient in applying these skills consistently. For a government department or organization to achieve sustainable innovation, it needs innovative people who can systematically generate breakthrough solutions from the ground up. Lauren's presentation offers a unique perspective on Goldratt's Thinking Processes, emphasizing that their success in solving complex organizational challenges hinges on their application in our everyday personal struggles.

By integrating these thinking tools into our daily lives, we not only enrich our personal experiences but also become better equipped to address significant challenges at work, fostering innovation at all levels. As members of the TOC community, we hold a responsibility not only to master the Thinking Processes but also to advocate for their potential as catalysts for innovation on personal and professional fronts. Ultimately, innovation commences with thought, and there's no tool better suited for this than Goldratt's Thinking Processes.

Join Lauren in exploring the practical application of TOC in her personal life, cultivating fluency in Goldratt's Thinking Processes, and witnessing the profound impact it can have on both personal and professional landscapes. Real-world examples will illustrate how one can progress from novice to expert in everyday tool usage, showcasing her own journey from 0 to 100 in fluency—thanks to these transformative Thinking Process tools.

SPEAKER BIO Lauren is from Sydney, Australia, and is the Course Director for the BBIT courses at ViAGO. Since joining the team in 2019, Lauren works alongside the BBIT team to ensure the coordination and organization of successfully run BBIT courses for participants from all different industries around the world. In her life outside of work, Lauren has a degree in Journalism and Criminology, is an avid reader of all things books, reading all genres, particularly autobiographies and crime novels, and enjoys nature walks.

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Human-AI Collaboration in TOC: Enhancing Goldratt's Thinking Processes with AI

Presented by Mirta Fagundes dos Santos

SUMMARY In a rapidly evolving digital world, the intersection of artificial intelligence and strategy could become your next competitive advantage. The Theory of Constraints (TOC) has already transformed management decisions, and the emergence of sophisticated AI models opens up exciting possibilities to further enhance its application. This presentation introduces an innovative use of AI, specifically the GPT model, in conjunction with Goldratt's Thinking Processes. While AI shows great promise in automating and improving decision-making, this presentation advocates for a collaborative approach. Instead of replacing human insight, we explore how AI can augment our ability to apply Goldratt's Thinking Processes. By combining AI's speed, scalability, and fresh perspectives with the invaluable human touch in crucial decision-making, we unlock the full potential of both. The aim is to demonstrate how an AI model can be trained to comprehend and effectively apply Goldratt's Thinking Processes, fostering a productive partnership between AI models and humans. The presentation delves into the implications of this fusion for businesses and other organizations. It will also address practical aspects, including potential challenges in integrating AI with Goldratt's Thinking Processes and strategies to overcome these hurdles. Join us to explore the exciting future where AI and TOC work hand in hand, driving transformative outcomes for your organization.

SPEAKER BIO Mirta is a Kiwi with a Brazilian last name and a Croatian accent. Her interests lie in process improvement with an emphasis on behavioral change. Mirta received a B.Com degree in International Business, followed by a B.A in Languages, from The University of Auckland. Shortly after, in 2004, Mirta joined the ViAGO team and has been a Director since 2014. She has assisted in the implementation of (TOC) business improvement initiatives in 50+ businesses across New Zealand and Australia. Outside of work, Mirta is busy parenting her three boys (not counting her husband) and enjoys board games, trivia nights, and any activity involving good food.

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TOC and Project Management – Other Than Critical Chain!

Presented by Ian Heptinstall

SUMMARY Whilst many associate the term ‘project management’ with organizing and delivering a well defined scope of work, this is not a universally accepted definition. A more holistic definition encompasses a broader lifecycle – which maps onto TOC’s three questions of change. This presentation will share thoughts on what other aspects of TOC can be useful additions to the project management bodies of knowledge. It will use a holistic project management lifecycle as a framework to describe where TOC tools can add to the existing bodies of knowledge, as well as describe areas of overlap. It will help TOC experts to work with project professionals and expand their professional toolkit.

SPEAKER BIO Ian teaches on a project management MSc program at the UK’s University of Birmingham. Before moving into academia, he spent 35 years managing projects and procurement, primarily in the chemicals and construction sectors. In addition to his teaching, he advises and coaches managers looking to change and improve project management and procurement.

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Improving Responsiveness of DBM in Distribution Systems

Presented by Rakesh Sinha

SUMMARY Dynamic Buffer Management (DBM) is an important component of TOC implementation in distribution systems to protect product availability against fluctuations in market demand. DBM must ensure that buffer size at any point in time stays true to the fundamental definition of ‘Maximum demand during Replenishment Lead Time (RLT), adjusted for supply reliability’. However, we find that in many TOC implementations, buffers drift away from this definition over a period of time, resulting in stockouts and excess inventory. The main reason for this drift is the presence of demand drivers which impact future demand but are not considered in DBM buffer sizing rules. Besides, buffer resizing is lumpy and infrequent, which creates demand latency and makes buffers out of sync with market demand. Proposed changes in DBM make it more responsive and truer to the definition by incorporating AI/ML based Demand Sensing engine at the front-end, which predicts near-term demand at the granular level, considering the impact of all the known demand drivers. These predictions are used in buffer sizing and are refreshed daily as new demand data comes in. Demand Sensing based buffers are more responsive to changes in market demand. They improve product availability while reducing inventory in the system. The proposed DBM logic has been implemented

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in several CPG and Retail companies in India. Results indicate consistent improvement in product availability, reduction in system inventory, and smoother flow of goods through the system. Join us in this presentation as we uncover the power of Demand Sensing in optimizing buffer management and driving better supply chain outcomes.

SPEAKER BIO Dr. Rakesh Sinha is the founder and CEO of Reflexive Supply Chain Solutions, a specialized consulting firm in the area of Operations and Supply Chain. He has worked with Godrej Consumer Products as the Global Head of Manufacturing, Supply Chain, and IT. He led the TOC implementation in GCPL in 2004, which was the first Viable Vision implementation in the world. Under his leadership, GCPL was awarded the Platinum Award by TOCICO in 2015. Dr. Sinha has led several TOC implementations across India, Indonesia, Africa, Latin America, and the USA.

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Demystifying the Strategy and Tactics Tree

Presented by Uwe Techt

SUMMARY A common challenge in the business world is formulating overarching strategies and systematically breaking them down into specific actions necessary to achieve business objectives. The Strategy and Tactics Tree, developed by Dr. Goldratt, is an invaluable tool that connects a challenging business goal with the necessary tactics and measures. Yet, many business leaders find it daunting to use. This presentation aims to dispel common misconceptions about the S&T Tree's complexity and supposed rigidity. Drawing from real-life implementation experiences, Uwe will show how to use this tool to define ambitious business goals that require pattern changes, decompose these goals into necessary and sufficient measures, and empower management teams to convincingly and motivationally present the strategy implementation plan. Attendees will learn how to use the S&T Tree to identify and address logical breaks, organize the strategy implementation process, track the measures' implementation and goal achievement, and apply learning from implementation deviations to future strategy implementation steps. Uwe will emphasize how to overcome preconceptions and apply the S&T Tree practically, focusing on the work process within management and implementation teams rather than on a software tool to represent the S&T Tree.

SPEAKER BIO Uwe Techt, 1964, is a seasoned professional in the field of Theory of Constraints (TOC), with several successful implementations under his belt. He has written multiple books on the subject, including "Goldratt and the TOC" and "Projects Flow - More Projects in Less Time", and regularly presents at various conferences. He has been a member of the Board of Directors of TOCICO since last year and is renowned for his pragmatic and goal-oriented approach to using the Strategy and Tactics Tree tool. His focus lies on building competitive advantages and achieving more projects in less time. Uwe is CEO of CISTEM GmbH & Co. KG.



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Project Portfolio Management the TOC Way

Presented by David Updegrove

SUMMARY There are two distinct components of Project Portfolio Management – Portfolio Planning, and Portfolio Execution, and most organizations do neither well. The Theory of Constraints has historically addressed the Execution side while giving scant attention to the planning side. But if throughput (of money or goal units) is the objective, we must address and master the Planning side. Which projects should we select, and which should we reject? How do we prioritize projects for insertion into our pipelines? What does the Portfolio Management Team look like? Who are its members? What are the processes involved for superior Planning? Project Portfolio Management the TOC Way is the result of real-life experience and full utilization of TOC principles and the TOC Thinking Processes. You can learn how to master both the Planning and the Execution of your project portfolios.

SPEAKER BIO David Updegrove is a 35-year practitioner of the Theory of Constraints and is a member of TOCICO's Board of Directors. David began his career in storekeeping, production control, and industrial engineering spanning 20 years at the Boeing Company. In 1988 he first implemented Drum-Buffer-Rope for Boeing Microelectronics, achieving remarkable results. This was followed by implementations in Printed Circuit Board Fabrication, Sheet Metal and Extrusion, and other areas. He became an internal consultant at Boeing and trained a large number of engineers on the principles of TOC. In early 2000, David left Boeing to become an independent TOC consultant. He has taught, implemented, and trained leaders in all aspects of TOC all around the world and in multiple different industries. He worked with Dr. Eli Goldratt the last few years of his life. David is the author of two books, *The Critical Chain Implementation Handbook*, published in 2014, and *Breakthrough to Clear Thinking and Innovation*, published in 2022. He has also written many articles and papers for the TOC community and beyond.

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TOC Applied to Deal with an Urgent Cancer Surgery and its Implications

Presented by Aureo Villagra

SUMMARY This presentation shares how the author used the principles of TOC to deal with aggressive cancer that required swift action after discovery. The presentation details a complete Strategy and Tactics Tree to handle all possible scenarios following emergency surgery: full recovery, subsequent treatment with chemotherapy, or death during surgery. The Strategy and Tactics Tree covers preparation for the preoperative emergency, postoperative recovery, and returning to everyday life after rehab, considering family preparation, his company stability, and

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personal aspects. The goal is to share this new application of TOC to inspire others to understand TOC as a game-changer tool for dealing with obstacles through Thinking Processes, especially under extreme pressure where emotion and fear can cloud judgment. Based on this approach, a Proof of Concept (PoC) was also carried out with the voluntary work of the author’s wife, an executive coach, and an author who uses TOC for personal development at an institution that deals with cancer patients undergoing long chemotherapy. The goal was to build a plan for the personal objectives that, beyond the obvious gains from the plan itself, aids the patient’s emotional state by focusing on the future and building hope for a better future after recovery.

SPEAKER BIO Aureo Villagra is a Goldratt Consulting Global Partner and Goldratt Consulting South America CEO, leading management consultancy projects in the US, Brazil, and Europe. He was a consultive board member of several companies in Brazil and the US, including big corporations, family-owned businesses, and start-ups. Aureo Villagra is an invited professor and board of assessment member at Brazilian and Portuguese Universities. He is an international speaker in the US, Brazil, Japan, Europe, India, and Israel.

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Using TOC Replenishment to Make Your ERP System Work for You

Presented by Duncan Patrick & Jack Warchalowski

SUMMARY Many organizations invested a lot of time, effort, and money to implement an ERP system. Many of these implementations didn’t deliver expected results in terms of inventory or lead time reduction or operating cost decrease. The TOC replenishment process historically delivered working capital decrease, availability increase, and often associated revenue enhancements. Changing an ERP system’s inventory management methodology to a TOC Replenishment one allows an organization to leverage an existing IT infrastructure and achieve required operational improvements. All of it can be done within a couple of months, without a new system implementation, extensive personnel training, or new CAPEX expenditures. Please attend our session and learn this new TOC innovation process.

SPEAKER BIO Jack Warchalowski is the CEO of CMS Montera Inc. CMS Montera specializes in software and consulting that helps clients solve problems in Operations and the Supply Chain. Jack helps organizations enhance their profitability and competitive position through the implementation of strategic improvement initiatives driven by CMS RoadRunner software. Jack is a Certified Management Consultant and a Professional Engineer registered in Ontario. He holds an MBA degree from the Wilfrid Laurier University and a Bachelor of Applied Science in Mechanical



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Engineering from the University of Waterloo in Waterloo, Ontario. In addition, Jack is certified by the TOCICO in all aspects of TOC.

Duncan Patrick is Executive Vice President of CMS Montera Inc. CMS Montera specializes in software and consulting that helps clients solve problems in Operations and the Supply Chain. Duncan's business consulting career is focused on working with clients to assist them solve problems in operations and the supply chain related to lead times, the forecast, inventory, capacity, on time delivery, product development speed and market focus. Duncan holds an MBA degree from the Richard Ivey School of Business, Western University and a Bachelor of Commerce degree from The University of Calgary. Duncan is certified by the Theory of Constraints International Certification Organization in all aspects of TOC. In addition, Duncan is a Certified Management Consultant.

Academic and Professional Contributions

Engage with cutting-edge research and thought leadership in TOC in the Academic and Professional

Contributions track: This track is dedicated to academics and professionals who are actively shaping and developing the body of knowledge in TOC. Learn from authors of relevant subject matter and discover new developments in TOC theory and practices.

Academic and Professional Contributions



What are the core insights/tenets/principles of TOC?

Brought to you by TOCICO Body of Knowledge Committee



Presented by Dr Alan Barnard, Jim Cox, Rob Newbold, Eli Schragenheim & Dave Updegrave

Facilitated by Roy Stratton

SUMMARY Unlock the Essence of TOC! Join us for a captivating presentation led by the TOCICO Body of Knowledge Committee. Delve into the Core Fundamentals of the Theory of Constraints (TOC), as we unravel its transformative power. Gain invaluable insights and discover how TOC's principles can revolutionize your approach to problem-solving and drive organizational success. Don't miss this unique opportunity to deepen your understanding of TOC's foundational principles.

SPEAKER BIO Dr. Alan Barnard is a leading decision scientist and Theory of Constraints (TOC) expert with almost 20 years of experience working directly with Dr. Eli Goldratt, the creator of TOC. As the CEO of Goldratt Research Labs (USA), Alan focuses on using advanced technologies and decision sciences to develop Apps and Decision Support methods, enabling organizations to achieve more with less time. Under his leadership, Goldratt Research Labs has collaborated on innovation and research projects with renowned Fortune 500 companies like Microsoft, Cargill, BHP, Tata Steel, Amazon, and others, along with public sector organizations like Utah Governor's Office and UN WFP. Alan has held prominent roles in various organizations, including past-President of the South African Supply Chain Society SAPICS and past-President of TOCICO. His significant contributions have been recognized through prestigious awards, including inclusion in the 2020 Marquis Who's Who Global Listing, membership in the Forbes Technology Council, and the TOCICO Lifetime Achievement Award. He is an accomplished author and frequent presenter on Decision Making in a Complex World and Theory of Constraints at international conferences. Alan's latest book, "The

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Bottleneck - How to resolve our attention crisis," is currently in progress. As the chief architect of the award-winning HARMONY Decision Maker, Change Simulator, and Change Maker series of Decision Support Apps, Alan continues to shape the landscape of decision science and TOC. Please let me know if you need any further information or details.

James F. Cox III Professor Emeritus, Management Dept. Terry College of Business, University of Georgia, Athens, GA. 30602 James F. Cox III, Ph.D., TOCICO certified, CFPIM, CIRM, JONAH's JONAH, Professor Emeritus, was the Robert O. Arnold Professor of Business at the University of Georgia. Before an academic career of over 30 years, he held industry and military positions. He taught Jonah workshops and numerous TOC workshops and programs. Dr. Cox's research has centered on TOC for over thirty-five years. He co-edited (with John Schleier) the TOC Handbook. He has written three books on TOC and has authored/co-authored over 100 articles in top academic and practitioner journals, including Decision Sciences, the Academy of Management Review and Journal, Production/Operations Management Journal, MIS Quarterly, International Journal of Production Research, Production and Inventory Management Journal, and Industrial Engineering. He was the co-editor of the APICS Dictionary (five editions with John Blackstone) and the TOCICO Dictionary, 2nd edition. Dr. Cox, an APICS member for over 40 years, held numerous chapter, regional, and national offices (BODs for 4 years, VP-Research for 2 years, APICS E&R Foundation BODs for 9 years including 4 as president). He also served on the founding TOCICO Board of Directors and as its first director of certification. He has spoken at over 50 APICS and other professional organization chapter meetings, regional seminars, and international conferences on TOC. He has received the APICS Voluntary Service Award and the TOCICO Lifetime Achievement Award for his contributions to the field. His research interest for 13 years has been the application of TOC in healthcare.

Rob Newbold, CEO and founder of ProChain Solutions, is one of the world's leading experts on Critical Chain project scheduling and management. He has over thirty-five years' experience developing process improvements in various fields. Rob is a frequent writer and speaker and holds degrees from Stanford University, SUNY Stony Brook, and Yale University. He is the author of the books Islands of Stability (ProChain Press, 2019), The Project Manifesto (ProChain Press, 2014), The Billion Dollar Solution (ProChain Press, 2008) and Project Management in the Fast Lane (St. Lucie Press, 1998) and was a contributing author to the TOC Handbook from McGraw-Hill. ProChain Solutions has been a leading provider of software, methodology, and implementation services for Critical Chain solutions since 1997.

Eli Schragenheim is a well-known international management educator, author, and consultant active in various fields of management. He worked with a huge variety of organizations all over the world, including public-sector organizations, industrial, high-tech and start-ups. Since he had joined Dr. Eliyahu M. Goldratt, the famous creator of the Theory of Constraints (TOC) in 1985, Eli Schragenheim had taught, spoke at conferences, and consulted all over the globe. Eli Schragenheim is the author of several books on various aspects of management. His last book, Throughput Economics – Making Good Management Decisions, together with Henry Camp and Rocco Surace, was published in July 2019. Eli Schragenheim first book Management Dilemmas (1998) showed a variety of problematic situations in management and the rigorous analysis leading to the right solution. Next, he collaborated with William H. Dettmer in writing Manufacturing at Warp Speed. In this book the new concept of Simplified-DBR, now a key concept in production planning according to TOC, was introduced. He collaborated with Carol A. Ptak on ERP, Tools, Techniques, and Applications for Integrating the Supply Chain, and with Dr. Goldratt and Carol Ptak on Necessary but Not Sufficient. In 2009 his book Supply Chain Management at Warp Speed, with William H. Dettmer and Wayne

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Patterson was published. In March 2015, Eli has opened a blog, now containing more than 140 articles on various topics in TOC that everybody can access.

Roy Stratton is an Associate Professor in Operations and Supply Chain Management at Nottingham Trent University, UK and having completed a Jonah-Jonah course has researched and implemented TOC related developments over 35 years. His research is largely case and action research based, focused on flow management in complex environments, covering supply chain, project and healthcare. Previously, Roy worked for Rolls Royce Aero Engines in an internal consultancy role. He has published widely in both professional and academic journals and is currently a TOC-ICO Board member.

David Updegrave is a 35-year practitioner of the Theory of Constraints and is a member of TOCICO's Board of Directors. David began his career in storekeeping, production control, and industrial engineering spanning 20 years at the Boeing Company. In 1988 he first implemented Drum-Buffer-Rope for Boeing Microelectronics, achieving remarkable results. This was followed by implementations in Printed Circuit Board Fabrication, Sheet Metal and Extrusion, and other areas. He became an internal consultant at Boeing and trained a large number of engineers on the principles of TOC. In early 2000, David left Boeing to become an independent TOC consultant. He has taught, implemented, and trained leaders in all aspects of TOC all around the world and in multiple different industries. He worked with Dr. Eli Goldratt the last few years of his life. David is the author of two books, *The Critical Chain Implementation Handbook*, published in 2014, and *Breakthrough to Clear Thinking and Innovation*, published in 2022. He has also written many articles and papers for the TOC community and beyond.

Academic and Professional Contributions



Community-based TOC: An Innovative Solution to the Healthcare Supply Chain Wicked Problem

Presented by James Cox & Vicky Mabin

SUMMARY This presentation is about you improving your community healthcare supply chain. It focuses on independent medical practices, each a small business, probably having less than 30 employees and probably little ability to pay and no knowledge of TOC. However, some concepts are applicable in more complex environments.

One estimate suggests that over 70% of emergency department patients would not have gone to the emergency department if they had seen a primary care provider in a timely manner. The cost of an ED visit versus a primary care visit is 12 to 1. We believe in a given community, the implementation of TOC across local medical practices could have a significant impact on patient/community health.

SPEAKER BIO James F. Cox III Professor Emeritus, Management Dept. Terry College of Business, University of Georgia, Athens, GA. 30602 James F. Cox III, Ph.D., TOCICO certified, CFPIM, CIRM, JONAH's JONAH, Professor Emeritus,

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was the Robert O. Arnold Professor of Business at the University of Georgia. Before an academic career of over 30 years, he held industry and military positions. He taught Jonah workshops and numerous TOC workshops and programs. Dr. Cox's research has centered on TOC for over thirty-five years. He co-edited (with John Schleier) the TOC Handbook. He has written three books on TOC and has authored/co-authored over 100 articles in top academic and practitioner journals, including Decision Sciences, the Academy of Management Review and Journal, Production/Operations Management Journal, MIS Quarterly, International Journal of Production Research, Production and Inventory Management Journal, and Industrial Engineering. He was the co-editor of the APICS Dictionary (five editions with John Blackstone) and the TOCICO Dictionary, 2nd edition. Dr. Cox, an APICS member for over 40 years, held numerous chapter, regional, and national offices (BODs for 4 years, VP-Research for 2 years, APICS E&R Foundation BODs for 9 years including 4 as president). He also served on the founding TOCICO Board of Directors and as its first director of certification. He has spoken at over 50 APICS and other professional organization chapter meetings, regional seminars, and international conferences on TOC. He has received the APICS Voluntary Service Award and the TOCICO Lifetime Achievement Award for his contributions to the field. His research interest for 13 years has been the application of TOC in healthcare.

Victoria J. Mabin Professor Emeritus, Wellington School of Business and Government, Victoria University of Wellington, Wellington, NZ Vicky Mabin PhD FORS TOCICO-Cert Jonah, is now Emeritus Professor in Management at Victoria University of Wellington, New Zealand, where she continues to supervise and undertake research. Prior to joining the university, Dr Mabin was an Operations Research (OR) consultant/analyst with the NZ Government's scientific and industrial research agency, working with a wide range of organisations. She has taught several hundred students about TOC, conducted and supervised many projects using TOC, and led developments in using TOC alongside other management and OR methods. Dr Mabin has authored/co-authored over 200 publications including journal articles, books, book chapters, conference papers, teaching texts, and technical reports, many of which are on TOC. She is a leading author of TOC TP articles, and co-author of The World of TOC (2000) and related bibliographical articles on TOC, and the TOC publications database. Vicky has served on the TOCICO Board of Directors, the TOCICO Certification committee and various editorial boards, and has been President and long-standing council member of the ORSNZ, and Chair of the local ORSNZ branch and NZPICS chapter. She is a frequent presenter at TOCICO and Operations Research/Decision Sciences conferences, and has received top awards including Fellow of the ORS (UK), ORSNZ's premier award (the Hans Daellenbach Prize) for her contributions to the theory and application of OR, and the 2021 TOCICO Lifetime Achievement Award.

Academic and Professional Contributions



Working Capital Productivity: A Metric to Exploit Cash Constraint

Presented by Pradeep Kumar

SUMMARY The concept of Working Capital Productivity (WCP) was developed while attempting to turnaround a Semiconductor manufacturing company facing a cash crunch in the year 2002. Once Cash was established as the

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constraint for the company, it was decided to ‘exploit the constraint’ by making only those products that returned cash highest in the quickest possible time. A metric was needed to rank the various products of the company. In the year 2002, solutions were available to exploit constraints of physical resources but none for exploiting cash constraint. Throughput accounting could not provide tools to benchmark individual products. The author was compelled to explore other knowledge areas, including operating and cash cycles, to develop a solution. Working Capital Productivity as a metric is the ratio of output to input. Output is the net of Sales minus fixed costs minus variable costs. Input is the money that stays invested in Raw materials, etc.

When cash is confirmed to be the constraint while customer orders, manufacturing capacity, raw materials, etc., are in surplus, the working capital cycle (cash operating cycle) comes into focus. While traditional approaches suggest bringing cash into the cycle and to reduce receivables and lead time, etc., the approach presented here looks at the complete cycle and its productivity to rank the products based on the return on cash. Join Pradeep to explore this innovative approach and its potential impact on your company’s performance.

SPEAKER BIO An Industrial Engineer from NITIE, he started his career on the shop-floor of Godrej & Boyce in 1979 and held positions of increasing responsibility with several leading organizations in India, such as Shriram Refrigeration, ITW Signode, Voltas, and Peerless Fabrikkerne India Ltd. In four of these units, he successfully led transformational change. Progressively leveraging these skills, he ventured into Management Consulting in 1999, where he employed innovative approaches to help SMEs improve productivity, cash-flows, and profitability. From 2009 to 2019, he taught Business Management at Nanchang University and Zhejiang Gongshang University, both in China. Drawing from deep domain experience in manufacturing, he designed several Executive Development Programs and delivered them in Hyderabad and Shanghai. Currently based in Hyderabad, he advises senior management as an Independent director and teaches MBA students as an adjunct faculty. He developed the concept of Working Capital Productivity in 2002 while exploring ways to turnaround a semiconductor manufacturing company facing a cash crunch.

Academic and Professional Contributions



Can Theory of Constraints Thinking Processes be Fully Automated by Artificial Intelligence?

Presented by Christophe Lambert

SUMMARY We present substantial advancements in the application of artificial intelligence (AI) to automate Theory of Constraints Thinking Processes and examine their ramifications. We provide several examples of creative problem-solving by combining ChatGPT, an advanced large language model by OpenAI, with the Theory of Constraints (TOC) Thinking Processes, TRIZ inventive principles, and rapid approaches to evaporating cloud formulation. The session builds upon the speaker’s 2020 TOCICO presentation, which introduced the use of the Reiss profile, a psychological instrument, to swiftly identify underlying human motivations in conflicts. In one approach, structured templates guide ChatGPT to identify an underlying conflict within narrative text, develop

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a coherent evaporating cloud for it, and then generate solutions using TRIZ separation principles. Furthermore, we explore the use of analogous templates for creating nodes of Strategy and Tactics Trees, and working with the Change Matrix along with its metaphors of the alligator, pot of gold, crutches, and mermaid. We will discuss both the current limitations and the risks of exponentially improving artificial intelligence, and how the win-win ethics of the Theory of Constraints might help mitigate doomsday scenarios implied by AI eclipsing human intelligence.

SPEAKER BIO Christophe G. Lambert, Ph.D., is a Professor of Medicine and Division Chief of Translational Informatics at the University of New Mexico. He is also the founder, past CEO, and current Chairman of Golden Helix, a Bozeman-based bioinformatics company. Throughout his career, he has applied systems thinking to the challenging problems affecting life sciences and healthcare research, with numerous articles and presentations diagnosing systemic problems and prescribing the change management required for improvement.

As a lifetime TOCICO member, certified in the Theory of Constraints (TOC) Fundamentals (2004) and Thinking Processes (2006), he applied TOC within his own company for a decade, and currently applies it to problems in mental and organizational health. Originally from Canada, Dr. Lambert received his bachelor's degree from Montana State University, and a Ph.D. in computer science from Duke University.

Academic and Professional Contributions



Conditional Reality Tree (CondRT)

Presented by Vicky Mabin & Abeer Youssef

SUMMARY One of the pinnacles of an academic's career is completing a PhD. While this is always an ambitious endeavor, TOC provides a well-proven suite of thinking process tools (the TP) to assist the research process (Mabin et al, TOCICO 2016). However, in the process of Abeer Youssef's PhD research, dealing with a real-life, potentially disastrous situation, we realized we needed a new TP tool for a situation that isn't covered by the existing TP. We adapted the existing tools to develop a new tool which we have called the Conditional Reality Tree. The Conditional Reality Tree applies to situations where the Undesirable Effects (UDEs) in the current reality are likely to get worse in the future due to some impending event or trend, and inadequate corrective action being taken. Since it lies in the future, the CRT cannot be used, but also, since the future is expected to contain many UDEs rather than DEs, the usual Future Reality Tree is not appropriate. We realized that there are many other situations where this problem of a worsening situation or a pending disaster arises, occurring in business, personal and societal settings. These could all benefit from having a reality tree to depict the situation clearly so that others can recognize there is an issue to be dealt with properly. Therefore, we are sharing the new tool that we developed and used in this research, to help others facing similar future situations that the existing TP cannot handle. In this presentation, we will discuss the problematic situation, introduce the new tool (the Conditional Reality Tree), and provide several examples of its application.

SPEAKER BIO Victoria J. Mabin Professor Emeritus, Wellington School of Business and Government, Victoria University of Wellington, Wellington, NZ Vicky Mabin PhD FORS TOCICO-Cert Jonah, is now Emeritus Professor in Management at Victoria University of Wellington, New Zealand, where she continues to supervise and undertake

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research. Prior to joining the university, Dr Mabin was an Operations Research (OR) consultant/analyst with the NZ Government's scientific and industrial research agency, working with a wide range of organizations. She has taught several hundred students about TOC, conducted and supervised many projects using TOC, and led developments in using TOC alongside other management and OR methods. Dr Mabin has authored/co-authored over 200 publications including journal articles, books, book chapters, conference papers, teaching texts, and technical reports, many of which are on TOC. She is a leading author of TOC TP articles, and co-author of *The World of TOC* (2000) and related bibliographical articles on TOC, and the TOC publications database. Vicky has served on the TOCICO Board of Directors, the TOCICO Certification committee and various editorial boards, and has been President and long-standing council member of the ORSNZ, and Chair of the local ORSNZ branch and NZPICS chapter. She is a frequent presenter at TOCICO and Operations Research/Decision Sciences conferences, and has received top awards including Fellow of the ORS (UK), ORSNZ's premier award (the Hans Daellenbach Prize) for her contributions to the theory and application of OR, and the 2021 TOCICO Lifetime Achievement Award.

.Abeer Youssef, PhD, Adjunct Research Fellow, Wellington School of Business and Government, Victoria University of Wellington, Wellington, New Zealand, and Lecturer, Graduate School of Business (GSB), The Arab Academy for Science, Technology and Maritime Transport (AASTMT), Alexandria, Egypt Abeer Youssef is an Adjunct Research Fellow in the School of Management at Victoria University of Wellington, NZ as well as a Lecturer at the Graduate School of Business (GSB), The Arab Academy for Science, Technology and Maritime Transport (AASTMT), Alexandria, Egypt. Dr Youssef obtained a Civil Engineering Bachelor's degree, then her Diploma and Master's degrees in Construction Engineering and Management. Her PhD at Victoria University of Wellington focused on fields related to risk management, conflict management, managing disputes over shared watercourses, water supply management, and thinking tools and decision-making techniques. She has worked as a Teaching Assistant (TA) and as a lecturer at many universities and educational institutions worldwide. She has authored/co-authored many publications in the management field. She is an expert in risk management, planning and scheduling, and cost management. She has provided consultations for several international companies and organizations in such fields. Since 2004, she worked closely with community development organizations that fight poverty in rural areas, enhancing people's education and awareness, reading for blind people, supporting addicts to recover and helping them to be involved in society again as good citizens in Egypt. She held several political positions. She also won the election of the Engineering Syndicate to become a Council Member at the Engineers Syndicate in Alexandria in 2014. She is now the Special Officer (SO) of the United Nations Association of New Zealand (UNANZ) for Humanitarian Affairs and a Member of the National Council and Executive Council of UNANZ.

Academic and Professional Contributions



The Elusive Nature of Double-Digit Growth

Presented by Justin Roff-Marsh

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SUMMARY In the 1950s, a significant change in the relationship between B2B vendors and their customers came into sharp focus. In 1954, in California, Ray Kroc sold milkshake machines for Prince Castle from the trunk of his car. Then, in 1959, Xerox energized the sales of their revolutionary 914 copier with their pay-per-print proposition. In the first case, the milkshake machine salesperson directly generated revenue for Prince Castle. However, with Xerox's pay-per-print proposition, the salesperson was no longer directly responsible for revenue generation. The sale of the contract was loosely coupled with revenue generation. Today, most commercial relationships more closely resemble the Xerox model. However, many sales departments are still structured and managed as if they were directly responsible for revenue generation. This profound misunderstanding of how revenue is generated leads to a litany of bad decisions. The consequences include distracting salespeople from pursuing new business, adding unnecessary friction to customer transactions, and systematically under-resourcing sales departments. This presentation highlights this critical design flaw and presents the structural changes required to reignite growth.

SPEAKER BIO For 20 years, Justin Roff-Marsh's deep thinking and writing on the subject of sales process engineering has blazed a trail for others to follow. Justin is the author of *The Machine: A Radical Approach to the Design of the Sales Function*. (Winner of Gold in the Sales category of the Axiom Business Book Awards.) And he's the founder of Ballistix—a consultancy with operations in the USA and Australia, delivering engagements worldwide. Although Justin was a science nut as a child (and still is today), he commenced his career in sales. He sold insurance and then progressed to manage a team of 100 salespeople. He then co-founded a firm that sold financial education and quickly discovered that his product lacked the margins required to sustain a typical field-based sales force. He developed his approach to sales process engineering in response to this challenge. Justin's approach to the sales process is as revolutionary as Deming's was to manufacturing. He argues passionately that the application of scientific management principles to the sales process is the next great uncharted frontier for industry. His message is always controversial, but he never fails to delight audiences with his fast-paced presentation style and his encyclopedic knowledge of business.

Academic and Professional Contributions



Thinking Sharper with AI Using Large Language Models to Improve Logical Qualitative Analysis

Presented by Thorsteinn Siglaugsson

SUMMARY While the use of AI in quantitative analysis has for long been on the rise, this has until very recently not been practical when it comes to qualitative reasoning. Most of the information used in management decision-making is tacit information, which never finds its way into structured databases. While robust structured analysis frameworks such as the TOC Thinking Processes / Logical Thinking Process do exist, using them is both time-

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consuming, intellectually demanding and often bias-prone. The new Large Language Models (LLMs) such as ChatGPT can be used in various ways to assist with building and scrutinizing logic trees. Taking advantage of them reduces the time spent building trees, improves logical connections, and helps reduce bias. In this presentation Thorsteinn will discuss in what ways LLMs can be used to build, scrutinize, and improve logic trees, and how to correctly prompt the models for optimal results, using real-life examples.

SPEAKER BIO Thorsteinn Siglaugsson is an accomplished independent strategy consultant and corporate trainer, specializing in improving performance and guiding C-level executives. With a focus on clarifying focus, identifying core issues, and developing robust strategies, he assists management in overcoming obstacles to success. Thorsteinn employs the methodology of the Theory of Constraints and the Logical Thinking Process to analyze and address constraints, conflicts, and underlying issues, providing a solid foundation for sustainable results. Since 2006, Thorsteinn has worked with numerous companies across various industries, offering his expertise in planning, forecasting, budgeting, software project management, and implementation. As an independent strategy consultant, he has undertaken diverse projects including analysis and improvement, strategy formulation, process enhancement, asset valuation, and IT implementation. Additionally, as an independent corporate trainer, Thorsteinn has conducted training programs on planning, budgeting, and the Logical Thinking Process for educational institutions and companies. Thorsteinn holds an MBA from INSEAD and a BA in Philosophy from the University of Iceland. He has acquired certifications such as the Goal Systems International Certificate of Mastery in the Logical Thinking Process. In addition to his work, Thorsteinn actively contributes to the field, publishing insightful articles and research essays in various local and international publications. He is a board member of Excellence Iceland, serving in the Strategy and Performance Management Group, and chairs the Icelandic Free Speech Association. Thorsteinn also participates in the Artificial Intelligence Group as a board member.

Academic and Professional Contributions



TOC Applied to Professional and Personal Growth in a New Coaching Methodology

Presented by Marta Villagra

SUMMARY This new application of TOC for personal development and coaching processes was developed from the author's own experience, participating in the Odyssey Program to overcome a severe personal crisis. This was followed by over a decade of research and real-world case studies with her executive coaching clients. The presentation showcases the use of classic TOC tools like CRT, Cloud, FRT, and RoadMap to enhance the coaching process, while also demonstrating how the pillars of the TOC mindset were employed for a more comprehensive self-understanding approach. With this application, attendees can gain a systemic vision, achieve a better definition of personal purpose and objectives through full consciousness, and learn a practical process for implementing desired changes. The execution approach incorporates traditional TOC concepts of flow while advancing effective communication with others and overcoming daily life challenges. The presentation encompasses the content of the

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book "Think Clearly and Act with Focus," designed to be easily applied by a layperson to their life, and for professional coaches to enhance their processes with clients through real case explanations. Moreover, the presentation delves into practical cases of how a company can improve its leadership performance by applying the methodology individually, harmonizing personal purpose, business objectives, and leadership dynamics. Attendees will gain valuable insights and strategies to apply TOC principles to their personal development and coaching endeavors, leading to profound positive changes and enhanced leadership capabilities.

SPEAKER BIO Marta Villagra is an international executive coach, author of the book "Think Clear and Act with Focus", a full methodology based on TOC for professional and personal growth, and guest speaker and lecturer in the United States, Brazil, and Israel. Marta Villagra is an ICF (International Coaching Federation) member, certified by the ICI (Instituto de Coaching Integrado), and holds a post-graduated in Teaching Methodologies. She has experience developing executive coaching processes for over a decade in the US, Brazil, Europe, and Asia. She has clients in various expertise areas, family business executives.

Academic and Professional Contributions



Infinite Games, Antifragility and Theory of Constraints – How to Survive (and Prosper) in the Infinite Game of Business

Presented by Andrea Zattoni

SUMMARY In the ever-changing and unpredictable world of business, survival and prosperity are crucial objectives for organizations. However, simply being robust and resilient is not enough. To thrive in today's volatile environment, organizations need to focus on becoming antifragile and responsive to unpredictable events. This presentation explores how the principles of antifragility can be applied practically using the Theory of Constraints (TOC). TOC offers solutions that translate the concepts of antifragility into actionable strategies, helping organizations transition from fragility to antifragility. Managers and business owners face the challenge of ensuring their organization's survival and delivering results despite complexity, uncertainty, and limited resources. The increasing interdependencies and rapid changes in the economic landscape pose threats to organizations, especially when unpredictable events like Black Swans occur. By embracing the principles of antifragility, organizations can prepare themselves to withstand the impact of unforeseen events. This presentation provides a framework and mindset to guide organizations in the infinite game of business, where continuous improvement must prioritize the ability to stay in the game. Additionally, the presentation showcases how TOC solutions effectively apply the principles of antifragility, addressing the conflict between short-term and long-term orientations.

SPEAKER BIO Andrea Zattoni is the CEO of Antifragility and a TOC Expert. He has a professional background as a manager and board member in a major production company, as well as a contract professor at the University of Bologna. He is a speaker at conferences on innovative management practices and a lecturer in courses and



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seminars on the applications of Theory of Constraints. Andrea is also a co-Founder of ATOCA (Alliance for Theory of Constraints Awareness), a non-profit association of professionals whose purpose is to promote and spread the awareness of the value that people and organizations can get by Theory of Constraints. His focus lies in helping business owners and managers transform their enterprises into Ever-Flourishing Companies, becoming increasingly antifragile.

Workshops

Get ready to elevate your knowledge and skills with our TOC Workshops track! Join us for a series of 3-hour interactive workshops led by industry experts, where you'll delve into the core principles and practical applications of TOC. From optimizing processes to overcoming bottlenecks, these workshops will equip you with invaluable strategies to drive innovation, enhance productivity, and unleash breakthrough performance in your organization.

Workshop



Fundamentals of Flow

Workshop Presented by Sanjeev Gupta

SUMMARY Sanjeev Gupta, a renowned expert in process optimization and flow management, extends a warm invitation to join his upcoming workshop titled "Fundamentals of Flow." In this immersive and engaging workshop, participants will have the unique opportunity to delve into the core principles of flow and learn invaluable techniques to enhance productivity and efficiency across various domains.

During the workshop, Sanjeev will share his extensive knowledge and practical insights gathered from years of experience in the field. Participants will explore the fundamental concepts of flow, uncovering how to identify bottlenecks, optimize resource utilization, and streamline workflows for maximum throughput. Through real-world case studies and interactive exercises, attendees will gain a deep understanding of the key factors that contribute to the smooth and seamless movement of work through processes.

Whether you are a seasoned professional seeking to refine your flow management skills or a novice eager to grasp the essentials, this workshop caters to all levels of expertise. Sanjeev's passion for empowering individuals and organizations with the tools to achieve operational excellence shines through, making this an unmissable opportunity for anyone seeking to unlock the full potential of their processes.

Join Sanjeev Gupta in the "Fundamentals of Flow" workshop and embark on a transformative learning journey that promises to revolutionize the way you approach process optimization and flow management. Don't miss out on this enriching experience that can lead to remarkable improvements in your work environments. Reserve your spot now and accelerate your path towards achieving superior flow and outstanding results.

SPEAKER BIO Sanjeev Gupta is Managing Director of Vulcan, operator of Africa's largest coal mine. Previously he has founded two software companies, Thru-Put Technologies and Realization Technologies. Thru-Put was a category leader in advanced planning and scheduling for complex manufacturers, and Realization has delivered more than \$7 billion of value to its customers for helping them finish their projects faster.



Workshop



The Goal Simulation Workshop

Presented by Duncan Patrick & Jack Warchalowski

SUMMARY If you are an Executive or a Manager in a Manufacturing Organization this hands-on workshop is for you. It will teach you and your management team via a realistic, hands-on production simulation, how to use the techniques outlined in the Goal to increase productive capacity, improve on-time delivery, decrease inventory, reduce costs, and maximize net profit. For more info, please click this link - <https://cmsmontera.com/goal-workshop/>

SPEAKER BIO Jack Warchalowski is the CEO of CMS Montera Inc. CMS Montera specializes in software and consulting that helps clients solve problems in Operations and the Supply Chain. Jack helps organizations enhance their profitability and competitive position through the implementation of strategic improvement initiatives driven by CMS RoadRunner software. Jack is a Certified Management Consultant and a Professional Engineer registered in Ontario. He holds an MBA degree from the Wilfrid Laurier University and a Bachelor of Applied Science in Mechanical Engineering from the University of Waterloo in Waterloo, Ontario. In addition, Jack is certified by the TOCICO in all aspects of TOC.

Duncan Patrick is Executive Vice President of CMS Montera Inc. CMS Montera specializes in software and consulting that helps clients solve problems in Operations and the Supply Chain. Duncan's business consulting career is focused on working with clients to assist them solve problems in operations and the supply chain related to lead times, the forecast, inventory, capacity, on time delivery, product development speed and market focus. Duncan holds an MBA degree from the Richard Ivey School of Business, Western University and a Bachelor of Commerce degree from The University of Calgary. Duncan is certified by the Theory of Constraints International Certification Organization in all aspects of TOC. In addition, Duncan is a Certified Management Consultant.

Workshops

Workshop



Lessons In Synchronous Flow Manufacturing – The Dice Game

Presented by Max Krug & Joe Cooper

SUMMARY Please bring a laptop or iPad with Google Chrome (if possible). Limited to 20 attendees.

This workshop is designed for individuals who seek to get their organization to the next level of company performance. The workshop is designed for organizations that have current challenges in managing operations within their organization and want to learn the methods and techniques to achieve breakthrough improvement in operational performance. The methods presented in the workshop, if implemented, will allow the company to realize full potential in growth and performance. What you will learn: The Lessons in Synchronous Flow (The Dice Game) workshop will introduce the latest thinking in applying Drum-Buffer-Rope techniques to operations that will have strategic implications for the organization in terms of reliably meeting customer demand, profitability, inventory turns, delivery performance, cash flow, net profit and company growth built on new operational capabilities. The workshop will utilize both a hands-on interaction along with a real-time on-line data collection tool to explore the current operational challenges that organizations are dealing with today, and the typical actions that organizations are taking to deal with these challenges, and the results from taking these actions. In addition, a framework will be introduced that defines the necessary conditions that an organization needs to achieve significant improvement in operational performance. The workshop will involve three rounds of simulation in an experiential learning game designed to demonstrate several key principles of Operational management. Participants will manage a multi-step operation by moving work through the transformation steps with a goal of optimizing on-time delivery, profitability, throughput, inventory levels, lead-time, and productivity. At the end of each simulation, the overall operational performance will be reviewed and discussed by capturing metrics such as Throughput, Operating Expense, Net Profit, Inventory Investment, On-Time Delivery Performance, Production Lead-Time, Productivity, and change in Cash Position. The workshop will demonstrate how to expose hidden capacity along with the root cause of Operational issues and will introduce concepts to address and overcome the typical problems that organizations deal with in managing operations. Participants will be introduced to holistic thinking that is used to guide the transition to achieve Operational Excellence. An open discussion will compare the traditional thinking for managing operations to the mindsets necessary to improve and sustain operational performance. Mindset topics to be discussed include cost versus throughput, efficiency versus effectiveness, local improvement versus global improvement, lowest price versus lowest total cost, product margin versus company profitability, in addition to the strategic implications of the mindsets on the organization.

SPEAKER BIO Max Krug, a seasoned change management professional with 38 years of diverse operational experience, specializes in improving financial and operational performance for organizations. He offers expertise in

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manufacturing operations, distribution, and project management across various sectors. Max is dedicated to helping companies achieve Operational Excellence through Theory of Constraints, Lean Enterprise, and Six Sigma concepts.

Max holds certifications in Production and Supply Chain Logistics (TOCICO), Professional Business Advising (Manufacturing Extension Partnership), Lean training (MEP University), and Jonah (Goldratt Institute). He has a track record of training and coaching operations management personnel, facilitating corporate strategy development, and resolving conflicts in small to medium-sized organizations. Collaborating closely with companies, Max devises and implements corporate strategies to enhance operational and financial performance while addressing internal conflicts and cultural challenges. His industry expertise spans automotive, wood, furniture, plastic injection molding, metal machining, electronics, medical, metal finishing, and die casting. Max has a proven track record of boosting throughput, profitability, quality, delivery performance, and product availability while reducing inventory levels. Max earned a Bachelor of Science in Industrial Engineering from Alfred University and holds a Master's in Business Administration from St. Bonaventure University.

Joe Cooper is an Enterprise Business Architect at DMI operating at the intersection of business and technology; leveraging innovation, transformation, continuous improvement, and team-engagement to accelerate systemic outcomes for organizations. Joe has been a practitioner, implementer, and lifelong learner of the Theory of Constraints principles for 20 years, specializing in Critical Chain for project, program, and portfolio management. He is a regular speaker at global TOCICO and Project Management Institute (PMI) events and is TOCICO certified (2010) and PMI-PMP certified (2003). Other certifications include SAFe Agile Product Manager, SAFe Advanced Scrum Master, Scrum.org PSPO and PSM. Joe earned degrees in Physics, Mathematics, and Professional Pilot Technology from Indiana State University. He is an FAA certified commercial pilot (multi-engine, instrument, seaplane) and an aviation enthusiast. Joe enjoys spending time with his lovely wife and three wonderful (young adult) children. He also enjoys cultures and languages, health/fitness/nutrition, deep sea fishing, and studying Emotional Intelligence.

Workshop



Indiana Jonah and the Matrix of Change

Presented by Richard Zultner

SUMMARY Discover the Modern Matrix of Change in this interactive workshop! Join us as we explore Eli Goldratt's original 4-boxes, updated with 2 additional boxes, creating a renovated structure that can revolutionize your approach to change. Eli Goldratt's original 4-box Change Matrix will be showcased in the enlightening session 'Do People Resist Change — Isn't it Obvious?' (<https://www.youtube.com/watch?v=hczi1aZ60k7w>).

This workshop will provide you with a 'step zero' Thinking Process (TP) tool, empowering you to understand your

Workshops

target customers' Desirable Effects (DEs) and Undesirable Effects (UDEs) – collectively, their Customer Needs (CNs). By gaining this valuable insight, you'll lay a solid foundation for crafting compelling offers that turn 'no' or 'maybe' into 'hell yes!'

SPEAKER BIO Richard E. ZULTNER, Jonah (Theory of Constraints Master Teacher) from [AGI], and QFD Red Belt (from Dr. Yoji Akao) based in Princeton, NJ, USA. He is a Certified Project Management Professional (PMP) [PMI] and a Level 3 Certified Implementer in Critical Chain Project Management [TOCICO]. Richard specializes in helping frustrated project managers facing seemingly impossible challenges. He teaches them how to consistently finish their projects early, reducing project time by 15-25%, by shifting their project management paradigm to Critical Chain PM. Additionally, he holds certifications as a Certified Quality Engineer (CQE) and Certified Software Quality Engineer (CSQE) [ASQ], Six Sigma Master Black Belt, and QFD-Architekt (4. Grad) [QFD-ID]. Richard also works with entrepreneurs who are struggling to gain traction with their products or services. He guides them in creating a crucial connection between their unique offerings and their ideal customers, crafting an irresistible offer for a perfectly aligned product. His approach is based on the billion-dollar framework for new product development used by leading companies worldwide, adapted into an essential model suitable even for solo entrepreneurs. Richard's wealth of experience includes serving as an Adjunct Professor of Critical Chain Project Management at Stevens Institute of Technology in Hoboken, NJ, USA (retired). For a decade, he taught Critical Chain project management to graduate students in the Project Management Program, School of Technology Management, through online, hybrid, and in-person classes at Stevens in Hoboken, and at international affiliate programs.