

➤ **The cover story** of the October 29, 2016 issue of *The Economist* “Liberty Moves North” [Vol. 421 #9013. Page 11 and 19-22. www.economist.com] discusses how Canada is uniquely fortunate in many ways and how it provides valuable lessons for other Western countries. Bucking the protectionist trend, characterizing so many other countries, the authors describe how Canada remains as a champion of openness, tolerance, employment opportunities, health care safety nets, stable governments, international free-trade and constructive human migration.

➤ **Jim Lawton describes** how collaborative robots, working alongside humans on the manufacturing floor can be used to automate a large range of production tasks and permit manufacturers to quickly and easily adjust to market demands. [“Collaborative Robots.” *InTech*. 63(5):12-14. Sept.-Oct., 2016. www.isa.org]. The author differentiates between collaborative and traditional robots, discussing their unique features and role in the future of manufacturing.

➤ **Ron Adner and Rahul Kapoor** discuss the difficulty in predicting the timing of technological change and planning an appropriate response strategy to remain competitive. The authors suggest that we are very good at predicting if an innovative technology will supplant an older one but we are not very good at predicting when the transition will take place. They propose a process where you scrutinize not just the old and new technologies but also their “ecosystems” in “Right Tech, Wrong Time” [*Harvard Business Review*. 94(11):60-67. November, 2016. www.hbr.org]. The authors believe that analysis of the ecosystem dynamics in an industry can help predict the speed of technological change permitting an effective response for long-term survival.

➤ **It is estimated** that one in every 200 people worldwide cannot see and another 246 million have reduced vision. David Dobbs provides insights into medical advances and treatments that are benefiting many who are losing or have lost their eyesight in “A Cure in Sight” [*National Geographic*. 230(3):30-53. September 2016. www.nationalgeographic.com/magazine]. Today, replacement of the cloudy natural lens with a clear artificial lens is a ten minute surgery; with an immediate return to clear vision. I have experienced this personally; having undergone corrective bilateral cataract lens replacement treatment a few months ago. No need to be fearful; the surgery is quick and painless. This article provides important



What's New in the Literature?

by **Terrance Malkinson**



information on diseases that affect the eye, current treatment, and research. The author also discusses the gulf between the developed and developing world in vision care.

➤ **For those of us** in our senior years, the passenger experience for today's airline customer is much different than that which we “enjoyed” in our younger years. Travel today is stressful in many ways. *Consumer Reports* in its cover story article “Secrets to Stress-Free Flying”. [81(10):18-31. October, 2016. www.consumerreports.org] provides strategies to fly saner, safer, and cheaper. Seat size, safety, fares, passenger conflict, connections, airline rankings and booking flights are but a few of the topics covered in this consumer report. An interesting inset describes a few of the initiatives of consumer advocacy groups on airline safety and customer-service..

➤ **Many businesses are** taking on society's biggest problems and achieving financial success by doing so. Erika Fry and others in their *FORTUNE* article “50 Companies Changing the World: and Making Money Doing It.” [174(3):58-78. September 2016. www.fortune.com] profiles fifty companies that do well by doing “good” globally. Somewhat related to this topic, *MIT Technology Review* profiles “50 Smartest Companies.” [119(4):61-93. July/August, 2016. www.technologyreview.com]. These companies are considered “smart” because of the way they create new opportunities; combining innovative technology with an effective business model and taking advantage of new digital technologies.

➤ **Engineering News Record** [277 (8):43-63. September, 2016. www.enr.com] reports on the peer-selected winners of the “Global Best Project Awards-2016”. These projects were judged to be the most outstanding examples of the risks, rewards, and hurdles overcome when designing and building internationally. The project winning top honors as global project of the year was the Thames Water Lee Tunnel in the best water/wastewater category. This tunnel was built by an international team to improve water quality in the London, England Borough of Newham and employed innovative management and construction techniques. The 6.9 kilometer long, 7.2 meter diameter tunnel captures overflow storm water mixed with sewage that

was previously discharged untreated into the Thames River. Once storm flows drop, the water stored in the tunnel is sent for treatment. Approximately 35 million metric tons of overflow can be diverted and treated.

➤ **Medical identity theft** is on the rise. This occurs when someone steals personal data to illegally obtain prescription drugs, doctor care or surgery. Should this occur, it can be personally devastating, endangering your medical treatment and finances. In “Body Snatchers”, [*Consumer Reports*. 81(10): 42-49. October, 2016. www.consumerreports.org]. Michelle Andrews provides information about who is most at risk, how to lower your risk, spotting the warning signs, protecting yourself, and what to do should you become a victim.

➤ **Karl Deisseroth describes** a new experimental approach using both chemistry and biology that provides scientists with a technology to visually examine the deepest portions of the intact brain in “A Look Inside the Brain” [*Scientific American*. 315(4):30-37. October, 2016. www.scientific-american.com]. This new technique involves removing lipids and replacing them with a substance that allows the investigator to see past the barriers that currently block an internal view of this complex organ. These hydrogel embedding methods allow researchers to examine the wiring of specific neural circuits and are described in a pictorial flowchart. This innovative technique is predicted to give new insights into the biology of the brain and its disorders. and is also now being expanded and applied to other organs and tissues.

➤ **It is estimated** that by 2050 70% of the world's population will live in urban areas and rail will be the transportation system of choice. Additionally, the rise of the Internet of Things combined with smart cities will increase our reliance on the rail system, and on how modern railways and subways are being constructed. Carlos Gonzalez discusses the future of cities and surface and underground rail transportation in “All Aboard! The Future of Railroads, Subways, and Smart Cities” [*Machine Design*. 88(8):32-38. August, 2016. www.machinedesign.com]. ■

For **Terrance Malkinson's** biography please see page 9.