

➤ **A business report** in MIT Technology Review “AI Takes Off” [119(3):61-69. May/June, 2016] provides a series of articles on how companies are looking to artificial intelligence as a tool to benefit their business. Artificial intelligence in this report is defined as “an evolving constellation of technologies that enable computers to simulate elements of human thinking including learning and reasoning.” As described in the report since its origins in 1914 AI has had its ups and downs but is now evolving into a powerful business approach utilized in many applications and is poised for major breakthroughs. Current applications and prospects for the future are provided by the authors. Further information is available on the MIT Technology Review website -[www.technologyreview.com/business](http://www.technologyreview.com/business)

➤ **The world's longest** and deepest rail tunnel opened in Switzerland in June, 2016. This 57 km twin-bore Gotthard base tunnel [[www.bbc.com/news/world-europe-36423250](http://www.bbc.com/news/world-europe-36423250)] provides a high-speed rail link under the Swiss Alps between northern and southern Europe. The primary purpose of the tunnel is to facilitate the rapid, cost-effective, and environmentally responsible transport of freight and passengers across the Alps. Taking 17 years to construct and costing more than \$12B the project was endorsed by Swiss voters in a referendum in 1992. Workers maintained Swiss tradition, bringing the massive project in on time and on budget. This is an important component of a larger Swiss strategy to transition all freight travelling through Switzerland from road to rail. It is predicted that 260 freight trains and 65 passenger trains will pass through the tunnel each day in a journey taking as little as 17 minutes. It is likely that we will soon witness many more massive tunneling projects as innovations in engineering technologies make their construction efficient and cost-effective. While on the topic of railways, the cover story of the June, 2016 issue of Railway Age [[www.railwayage.com](http://www.railwayage.com)] focuses on the “Bright Future of Passenger Rail in America.” This Rail guide details North American initiatives, improving rail infrastructure and service.

➤ **The cover story** of *Discover* provides a study of “Inside Einstein’s Brain: How His Thought Experiments Changed Physics” [pp.26-31. June, 2016 [www.discovermagazine.com](http://www.discovermagazine.com)]. Andy Berger discusses how Albert Einstein’s theories changed the rulebook of physics and this was all the result of his unique creative thinking abilities. The author provides insights into how he and others were able to think creatively. Central to this was their ability to keep their thoughts clear of unnecessary information. Thoughts were “populated with only items essential to his experiments.” In today’s



## What’s New in the Literature?

by **Terrance Malkinson**



world where many of us are overwhelmed by information overload this is an important concept for you to consider particularly for those whose career success requires creativity and innovative thinking.

➤ **Ron Clemons provides** information to help you determine the 3D-printing technologies and materials that are best for your application in *Machine Design*. [88(5):38-44. May, 2016. [www.machinedesign.com](http://www.machinedesign.com)]. There is no single technology well-suited for every application. The author provides a list of seven considerations that you can use to help you qualify and disqualify processes and materials for your unique 3D printing projects.

➤ **“Increase your Return on Failure”** is the title of an article by Julian Birkinshaw and Martine Haas [*Harvard Business Review*. 94(5):88-93. May, 2016 [www.hbr.org](http://www.hbr.org)] that discusses how to most effectively learn from failure. The article begins with the large print headline – “One of the Most Important- and Most Deeply Entrenched-Reasons Why Established Companies Struggle to Grow is Fear of Failure.” Ironically as the authors discuss that although many companies claim to embrace failure as an integral part of the innovation process, the reality is that near-zero tolerance of it blocks them from pursuing new ideas. The authors provide three steps that you can take to improve your organizations return on failure. Success emanates from sharing those lessons learned from failure experiences across the entire organization and regularly reviewing your overall approach to failure to make sure you are achieving the correct balance.

➤ **McKinsey & Company** published its March 2016 “Global Survey of Economic Conditions” [[www.mckinsey.com](http://www.mckinsey.com)]. This article offers insights into what executives are thinking about where national and global economies are heading. Caution and uncertainty are the predominant themes; primarily a result of slowing growth in China. Survey respondents (n=2772) tended to be pessimistic with 48% expecting global conditions are worse while 21% believe global conditions are better, and 31% believing that conditions remained the same compared with predictions made six months ago. Expectations vary greatly by region and by industry. Executives from developed markets were more likely to

be negative than those from their emerging market peers.

➤ **As we progress** through life it is inevitable that you will be exposed to incivility. Christine Porath in her managing yourself feature article “An Antidote to Incivility” [*Harvard Business Review*. 94(4):108-117. April, 2016 [www.hbr.org](http://www.hbr.org)] explores the prevalence of incivility and identifies tactics that you can use to minimize the effects of rudeness on performance and your health. Results from over 20 years of her research reveals that 98% of the thousands of workers surveyed had experienced uncivil behavior. Interestingly, only a small 15% of respondents were satisfied with how their employer handled incivility. Strategies are presented that you can use to handle incivility. Effectively used when you encounter rude behavior these strategies will make you more assertive and confident – perhaps even saving your job and preserving your health.

➤ **Today over 700,000** people are killed each year by drug resistant infections. Should this trend continue it is estimated that deaths could reach 10M by the year 2050. In the leader to the article “The Grim Prospect” the editors of *The Economist* state “Drug-resistance is not only one of the clearest examples of evolution in action, it also the one with the biggest human cost...and it is getting worse”. [*The Economist*. Volume 419 Number 8990. pp. 19-21. May, 2016. [www.economist.com](http://www.economist.com)]. The threat is that of antibiotic resistance creating “superbugs” for which there is no treatment. The danger has been known for a long time with Alexander Fleming, the discoverer of Penicillin warning of the dangers of resistance almost as soon as the drug had been shown to be a success. The authors provide an in-depth analysis of the problem.

➤ **Graham Winfrey provides** analysis of four of today’s hottest industries for entrepreneurial people wanting to start a business. [“The Best Industries for Starting a Business Right Now.” *Inc*. February, 2016. Page 24. [www.inc.com/best-industries-in-2016](http://www.inc.com/best-industries-in-2016)]. A link is provided to the full list. Profiles cover topics such as: why the industry is hot, skills needed, barriers to entry, the downside, competition, and growth. ■

For **Terrance Malkinson’s** biography please see page 7.