SOCIETY OF ACTUARIES
Actuary of the Future Section

Actuary of the Future

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Integrate New Ideas—Make a Difference!

By Dave Snell

The function e^x (e to the power x) walks into a party for functions, looking glum. The bartender asks why he is so unhappy, and e^x says he is lonely. The bartender, trying to help, urges him to go among the other functions and integrate. His reaction is "No, if I integrate, nothing changes. It just doesn't make any difference."

That joke probably won't seem funny to your friends who have never studied calculus. However, for actuaries—especially members of the Actuary of the Future (AOF) Section—it is more than just a joke. Some members feel that they are the "newbies" of the actuarial profession, and that it is unrealistic for them to assume they can make a difference. They think they should try to look and think the same as those around them.

I disagree!

The world is changing at an accelerating rate. Google calculates that humans produced 5 exabytes of data from the dawn of civilization through to 2003. We now produce 5 exabytes of data every two days![1] This means we can't assume that the proven methods and ideas of yesterday are going to be applicable tomorrow.

The marketplace for insurance is changing rapidly. Consumers are less likely to buy from an insurance agent and more likely to choose their insurance based on the advice of a friend—often a virtual friend via Facebook, Twitter, LinkedIn or some other social media. Our models of mortality may be impacted wildly in one direction by the increased danger of pandemics that can spread across the globe with the speed of an ordinary commercial

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Actuaries
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Actuary of the Future

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This newsletter is free to section members. Current issues are available on the SOA website *(www.soa.org)*.

To join the section, SOA members and non-members can locate a membership form on the Actuary of the Future Section web page at www.soa.org/aof.

Council's Corner
From Beanbags to Bull's-Eyes: Drawing Knowledge from Napkins

By AOF Council

Welcome to a new year for the Actuary of the Future (AOF) Section. This promises to be an eventful year, as we have a full slate planned. The AOF Council met last fall to look at our mission as a section and asked the question: "What are we doing for our section and the profession, and are we discussing the things that will move our profession forward?" Our lists of "ways to move the profession forward" are the backbone of our activities this year.

Mission statements aside, we know what the spirit of our section represents. We analyze the actuarial profession with the lens of "futurism." While the Forecasting & Futurism Section focuses on the technique of futurism, our section applies these methods and thoughts to our profession. What does this mean? Thirty years ago we couldn't have imagined the amount of actuarial work that is driven by technology. What will tomorrow bring? Will actuaries fill the boardroom? What will technology be like? We will be dealing with a workforce that is part of newer generations ... what will they be like? Will it change the culture of the workplace? (Hint—see the AOF social networking sites like LinkedIn for the answer!)

These questions are not answered easily, which is why the work of our section is so important.

We've recognized that it is imperative that actuaries be able to communicate their ideas and results for them to be successful leaders. We heard a great message about this at the SOA Annual Meeting in San Diego about communicating in pictures. Dan Roam, the author of the international bestseller *The Back of the Napkin: Solving Problems and Selling Ideas with Pictures*, was the opening general session speaker where he made it clear that no matter how good the information we have is or how hard we work, if actuaries can't convey that message in a way that can't be misunderstood to non-actuaries, we may be missing out on opportunities in our career or, more importantly, as a profession. Of course Roam's focus was on using drawings and pictures to do this, but other soft skills such as presentation skills, negotiating skills, and many others fit that same purpose.

The list of things that we have planned and upcoming is enormous and will help guide us through soft skills like the example above, but also through other topics that will be needed to thrive in our profession. Many of them will be announced via members-only email lists and LinkedIn updates—look in this issue of the newsletter for the ambitious list of webcasts we anticipate hosting this year.

One event we'd like to mention is that we are planning a "beanbag toss" tournament at the upcoming Annual Meeting in Orlando. Beanbag toss is a fun lawn game that is frequently played at barbecues and during tailgating events—it's a great game that everyone can play! This event in October will be a great chance to network and learn all about what the AOF Section does—more importantly, it is an opportunity to learn about our profession's future! More information will be available soon on both the AOF Section subpages at *www.soa.org* and also the Actuary of the Future LinkedIn site. If you'd like to be part of organizing this event, or would like to volunteer for the AOF Section, please email the section council at *smartz@soa.org*.

We look forward to seeing you in October! ☆

Sincerely,

Your AOF 2013–2014 Council

Source: http://visual.ly/big-data-explosion.

Dave Snell, ASA, MAAA, a former chair of the AOF Section, is technology evangelist at RGA Reinsurance Company. He can be reached at Dave@ActuariesAndTechnology.com.

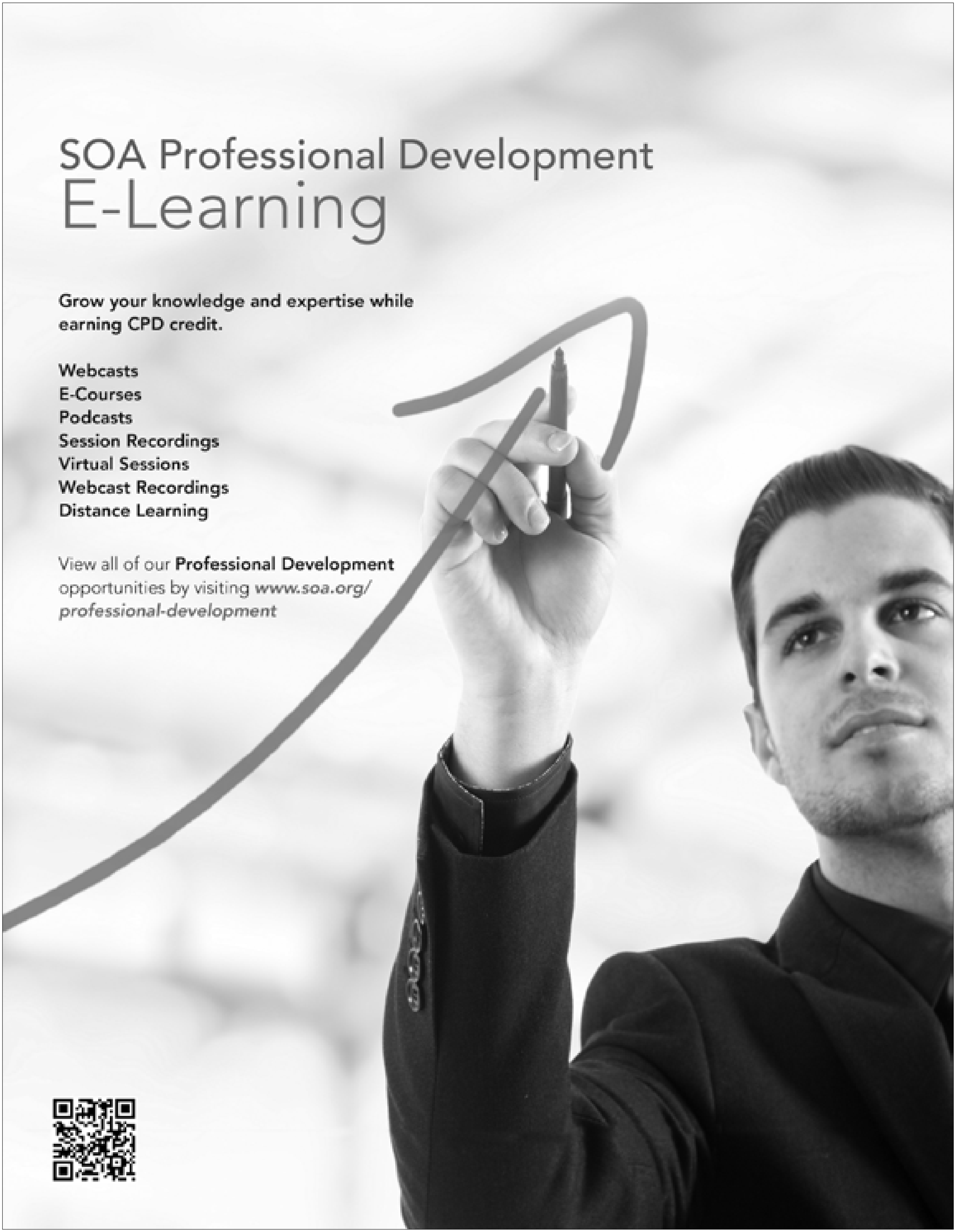
airline flight; or in another direction by medical advances that could employ advanced genetics to reconstruct aging cells and extend lifetimes way beyond our current expectations.

Experience is still valuable; but so are creativity and adaptability. The mind that contains the knowledge of classical actuarial modeling and risk management must not close after those exams have been passed.

In a mere half-decade, my world has expanded with a heightened appreciation for genetic algorithms, neural networks, deterministic chaos, cellular automata, complex adaptive agents, network theory, behavioral economics and several other ideas, tools and techniques that were foreign terms to me for most of my actuarial career. When I was an actuarial student, back when dirt was still young, it was critical for an actuary to master commutation functions. Today, they are obsolete—of more interest perhaps for archeologists than for actuaries. They could treat them as the cave paintings of an earlier era. In order to use a computer, you first had to prepare punch cards with appropriate holes for the various arcane instructions you wanted the compiler to read. The development of a new life insurance product normally took at least a year or more; that was OK, because nobody expected it to be any faster.

Much has been written about the rapid advance in computer capabilities, but, frankly, the capability curve is surpassed by the user expectation curve. Old development schedules are not acceptable in today's more time-competitive environment. The standard risks concerning mortality, morbidity, investment rates, and expenses are now accompanied by tail risks (such as reputational risk, currency fluctuations, etc.) and other risks far more difficult to model. I once worked at a $30 billion life insurance company that went into receivership because one rating service downgraded its rating by only one point. The result was that there was "a run on the bank" and the company was unable to liquidate 20 percent of its assets in seven days to meet the capital demands. How many of your risk models incorporate the agency ratings?

You are the actuaries of the future. You can make a difference! But it won't be all that easy. You have to embrace the ideas and technologies that lie ahead. Otherwise, you may find yourself feeling like e^x while the party moves on into the future. ☆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What Is the Professional Development Committee and What's in It for You?

By Beth Grice, Terry Long and Judy Powills

Beth Grice, FSA, MAAA, is actuarial director at Humana, Inc. in Louisville, Ky. She can be reached at bgrice@humana.com.

Terry Long, FSA, MAAA, is senior VP and consulting actuary at Lewis & Ellis, Inc. in Overland Park, Kan. He can be reached at tlong@lewisellis.com.

The Professional Development Committee's Top 10 Facts:

10. Otherwise known as the PDC, the Professional Development Committee is an SOA board of directors appointed committee.
9. The PDC was formed in 2009.
8. The PDC has overall responsibility for managing the development of the professional development (PD) curriculum (the content, method of delivery and resources provided to facilitate learning) reflecting the SOA's competency framework.
7. The PDC is charged with providing the highest quality learning experiences.
6. The PDC ensures that the PD program is focused on both current and forward-looking technical and non-technical content (state of the art).
5. The PDC ensures that the PD program makes use of instructional technologies to assure timeliness of, and broad access to (globally accessible), relevant and engaging programming.
4. The PDC fosters career-long learning.
3. The PDC is charged with ensuring that the SOA's PD program meets the needs of the profession and is aligned with the SOA strategic plan.
2. The PDC represents the SOA's constituencies including Canadian and international.

And No. 1 …
The PDC represents you and your PD needs!

Approximately 75 percent of content developed for, and delivered to, SOA members comes from you—the sections! The sections and volunteers play vital roles in the planning, development and delivery of the SOA PD program. 2014 looks to be an exciting year for section-sponsored PD offerings—section plans reflect an array of offerings targeted to member needs—meeting sessions, seminars, webcasts, podcasts and more. Congratulations to the sections!

If 75 percent of content comes from the sections, where does the rest of the SOA's PD programming come from? The SOA partners with other organizations, actuarial and non-actuarial. The SOA also enters into strategic alliances with other organizations. The PDC is responsible for considering these strategic alliances. For example, if an organization is interested in delivering a seminar, it is required to submit a strategic alliance form to the PDC.

The PDC has the responsibility and authority to evaluate the proposals and make a decision as to the appropriateness of the relationship. The PDC also looks to SOA staff to set goals in support of the PDC's initiatives to develop and deliver quality curriculum to meet members' PD needs and support lifelong learning. Remember that the prequalification curriculum with new additions is available to the PD audience, too.

Learning technologies are rapidly changing. The PDC evaluates and makes recommendations for the adoption of new technologies to apply to PD programs—the best in webcasting, virtual sessions and podcasting. And, our e-Learning portfolio continues to expand, offering more for members' technical and non-technical knowledge and skill development.

In addition to overseeing the PD program for members, the PDC sets priorities on an annual basis to provide a comprehensive, progressive curriculum to meet upcoming needs. 2014 priorities include building/enhancing PD offerings for pension actuaries and actuaries internationally, offering more in the areas of business analytics and general insurance, conducting market research to better understand member needs and gaps, and letting you

APPROXIMATELY 75 PERCENT OF CONTENT DEVELOPED FOR, AND DELIVERED TO, SOA MEMBERS COMES FROM YOU—THE SECTIONS! THE SECTIONS AND VOLUNTEERS PLAY VITAL ROLES IN THE PLANNING, DEVELOPMENT AND DELIVERY OF THE SOA PD PROGRAM.

know about offerings and tools available. Did you know, for example, that you can purchase a group of business and communication skills e-courses from BizLibrary: http://www.soa.org/bizlibrary/? Do you know about Tools for Actuaries: http://toolsforactuaries.org/? Check it out to find tools relevant to your development including books, e-books and training opportunities.

The PDC is a resource for you. Current PDC members representing the sections are:

- Beth Grice (PDC chair)—Health and Long Term Care Insurance Sections and liaison to the Health Meeting: *bgrice@humana.com*
- Peter Hayes—Pension and Social Insurance Sections: *phayes@eckler.ca*
- Donald Krouse—Investment and Joint Risk Management Sections and liaison to the Investment Symposium and ERM Symposium: *dkrouse@aegonusa.com*
- Terry Long (PDC vice chair)—Product Development, Financial Reporting, Marketing & Distribution, Reinsurance, Smaller Insurance Company, and Taxation Sections and liaison to the Life & Annuity Symposium and Valuation Actuary Symposium: *tlong@lewisellis.com*
- Kevin Pledge—Actuary of the Future, Education & Research, Entrepreneurial Actuaries, Forecasting & Futurism, International, Management & Personal Development and Technology Sections and 2014 Annual Meeting Chairperson: *kevinpledge@gmail.com.*

Judy Powills is senior director, Curriculum & Content Development, Education, at the Society of Actuaries. She can be reached at jpowills@soa.org.

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The other PDC members are Jennie McGinnis (board partner), Lorne Schinbein (Education Executive Group curriculum chair), Genghui Wu (international constituency), Mike Boot (SOA managing director—Sections & Practice Advancement) and Judy Powills (SOA senior director of Curriculum and Content Development). PDC members are also assigned to board-appointed teams including the Issues Advisory Committee, the International Committee and the Transfer Knowledge Team.

The PDC wishes to thank the sections for their contributions. Feel free to call upon us as your sounding boards for your ideas about PD content and delivery! ☆

Passing the Torch: AOF Executives Interview Series

In this issue, our volunteer **Steven Chin** had the honor to invite Rick Jones and Aaron Meder to share with us their career and discuss the challenges and hot topics facing actuaries.

PASSING THE TORCH: AN INTERVIEW WITH RICK JONES

By Steven Chin

Richard Jones, FSA, EA, MAAA, is a senior partner and leader of the National Practices Group for Aon Hewitt's Retirement Consulting practice. Prior to his current role, Rick served as chief actuary for Hewitt Associates. He has been practicing as an actuary for over 25 years, and has met with numerous federal government administration and legislative representatives and committees, including presentations to Senate Finance Committee staff, House Ways and Means members, Department of Labor, and Treasury Department executives. He also testified before the Senate Health, Education, Labor and Pensions Committee during October 2009 on pension relief issues. In addition, Rick regularly speaks with executives, boards and investors on pension topics. He can be reached at rick.jones@aonhewitt.com.

STEVEN:
How did you get to where you are now? Can you briefly run us through your career history?

RICK:
I graduated from high school and went into college with the intention of being an actuary. I attended the University of Wisconsin–Madison and had great luck there in the actuarial science program. I joined Hewitt Associates [Aon Hewitt now] straight out of school in a very traditional consulting actuarial student role and then accepted a number of opportunities along the way. For example, I transferred to our Cleveland office and spent eight years there while leading the retirement practice, and transferred back to Lincolnshire, Ill., in 2000. I have done a number of different things and led a number of initiatives to take the business forward.

A lot of my focus has been on how we can be great technicians in our work and leverage that into a business opportunity. For example, whenever a new law comes around, how can we not only help our clients comply with the new law, but also, as a business, move forward while capitalizing and commercializing the new law? These types of work and initiatives produced situations where I came in as chief actuary at Hewitt Associates. I entered that role, not as a slouch technically, but with a lot of people around me who knew a lot more than I did. However, when pension changes came around, I could ask: How can we support our clients while moving our business forward at the same time?

With the Aon-Hewitt merger, I was able to lead the National Retirement Practice group where we take broader areas of national concern and make sure everyone has what they need, and then leverage this to grow our own business and help serve our clients. I also continue to serve clients directly. I think it's critical to do this since I don't want to get too far away from what's going on in the real world, and I am tuned in to what's going on with our consultants in the field.

Steven Chin is an actuarial associate with Aon Hewitt in Lincolnshire, Ill. He can be reached at steven.chin.2@aonhewitt.com

STEVEN:
As an industry leader—the National Retirement Practice leader of Aon Hewitt, you have been involved in a variety of client projects and industry changes. What do you enjoy the most about the actuarial career?

RICK:
I would say it's the chance to combine the analytics and the technical skills we have as actuaries, with the ability to solve our clients' business problems. If you think about the domains actuaries operate in, there are huge business and societal problems: underfunded pension

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plans, pension risks, and individuals unprepared for retirement, soaring health care costs, the need for people to accrue financial stability and financial security, etc. There are huge organizational and societal risks that our technical skills and our analytical thinking can help solve and address. That is what really engages me—to use those to move people, organizations and society forward.

STEVEN:
What do you think contributes the most to your successes? And how should every aspiring actuary develop these skills/traits?

RICK:
I think what defines us as humans is that we talk. "Birds fly, fish swim, and people talk." As humans, we can talk and build off each other's thoughts. Personally, I have always enjoyed the opportunity to translate the technical concepts and the very detailed things that we are dealing with into understandable and actionable language that our clients can use.

If you really think about successful people, they are usually really great communicators. If you have the greatest ideas or analysis, but can't communicate them and get to the level of discussion where it's productive for everyone, then I think you are challenged.

STEVEN:
What is the greatest difficulty/challenge you have faced as an actuary? How did you overcome this difficulty?

RICK:
I think *change* is what it is. Change will always be there. Actuaries are probably slower to change given the nature of our work. Organizationally and societally, we are facing huge changes in how we address financial security programs and risk sharing. It's a little daunting to us risk-averse actuaries. How can we move from where we are today to a better solution? This is a huge challenge—how to help people think along the continuum of what's possible and necessary, and how we can facilitate the thinking and conversations to get there.

STEVEN:
What do you see as the hot topics right now in the retirement industry?

RICK:
There are three hot topics right now in the retirement industry.

First, risk. Who is prepared to take risk and who should take the risk? Individuals and entities are being brought together for tighter risk sharing and other business purposes.

Second, there is a general lack of resources accumulated to address retirement security today. If you look at the 77 million baby boomers, statistics show many are ill-prepared to retire. Some are very prepared for retirement and many are not. So, there's a lack of accumulation of assets that will challenge us broadly. I will even extend that to organizations by and large, such as government entities.

Third, what should the role of the government be in all of that? This gets into the first two problems: the risk sharing and lack of resources. Those are things we wrestle with day to day in how we serve our clients and think about broader solutions.

STEVEN:
Looking longer term, what do you think will be the challenges and opportunities for actuaries in the next three years? Five years? Ten years? How do you think we should get ready to meet these challenges?

RICK:
There's a shift underway. It's well-documented and well-known; there is a risk shift from organizations to individuals. It's happening all around us, and there will be a greater need for actuaries to help devise a solution to meet those needs at an individual level. We hear terms B-to-C (business-to-consumer) and B-to-B (business-to-business). I think by definition, we will be doing more B-to-C work. I don't know how that will all shake out, but I feel we are doing some of that already. In particular, the support we give to our administration and outsourced administration business helps people make decisions

every day for their retirement. But by and large, it will be more of a B-to-C model where we are helping individual consumers become more financially secure.

STEVEN:
Nowadays, the actuarial profession is trying to expand into more non-traditional fields. Is there a particular field that you think will be in huge need of actuarial talents in the near future? Where do you see the profession going?

RICK:
I am going to digress from the question a little bit as I toured a few college campuses with my son, who's in high school interested in engineering. At one of the schools, they talked about how they place their engineering graduates and it was interesting to me as one-third go to general industry (traditional engineer), one-third go to consulting (Accenture, IBM, etc.), and one-third go to Wall Street to work for investment firms. Their quantitative skills are so valued in the investment houses because they have such intimate knowledge of how mechanics and science work. They can go into any particular business and have a leg up because of how they analyze things from both a business perspective and a manufacturing perspective.

How does this example translate to what we might experience as actuaries? There are untapped areas in which we can participate more fully, including broader investment and risk analysis. There will be new and expanded ways for actuaries to effectively analyze and manage investments, capital allocation, and related risks.

STEVEN:
What recommendations would you make to the upcoming generation of actuaries?

RICK:
Two things stand out to me. I think actuaries are really impactful when they can combine a deep understanding of mechanics with an understanding of what the clients are trying to do, how the clients' business works, and outside forces and influences.

An analogy would be professional golfers. On a fundamental level, they are masters at knowing how to make the ball fly, roll and spin to get the shot they want. They also need to have the intellect to "manage" the golf course, keep their emotions in check, and deal with the fans, media and their sponsors. Translating this to the actuarial field, an actuary needs a deep understanding of the mechanics of how financial security programs work, how life events impact present values, and risk taking. It's a lot of hard study and hard math on how these things come together, if you have deep understanding of how these things work, paired with an understanding of the situations in which societal problems can impact the way we navigate through politics and business decisions. And, as mentioned earlier, we still need to be able to communicate this into a language that everyone can understand. A deep understanding of mechanics and the ability to implement it is really powerful.

STEVEN:
What are some of your hobbies and interests outside of the actuarial profession?

RICK:
I like to read non-fiction like business, risk and decision making. I enjoy active and physical activities like wind-surfing, biking and skiing. Maybe surprisingly, I like to mow the lawn, since it is one of those activities that have tangible and immediate results. Lastly, I like to spend time with my family—it's fun to see them learn and grow.

STEVEN:
Can you tell us an actuarial joke? **(Fun Question)**

RICK:
What's the difference between an introverted and extroverted actuary?

An introverted actuary looks at his shoes while talking to you. An extroverted actuary looks at *your* shoes while talking to you. ☆

PASSING THE TORCH: AN INTERVIEW WITH AARON MEDER

By Steven Chin

STEVEN:
How did you get to where you are now? Can you briefly run us through your career history?

AARON:
I started out as a traditional consulting actuary at Watson Wyatt in Chicago. Two years later, I joined Towers Perrin and spent three years there. They were similar positions within the retirement practice, but I wanted to see the differences in company culture.

At the time, I always told my employers and recruiters that I was interested in getting involved as an investment actuary in some capacity. Outside of work and studying, I spent a lot of time self-educating myself on financial markets, risk management and investment strategies.

One day in 2004, I got a call from a recruiter about an asset-liability role at UBS Global Asset Management. This was right after the "perfect storm" in 2002 when interest rates and equity markets fell. Pension funded statuses took a huge hit at the time. People were turning to asset managers and asking questions about how to better align assets and liabilities. Liability-driven investment (LDI) was not well-known at this point and UBS was looking for someone who could have these discussions on investment solutions that could better align assets and liabilities.

I was lucky enough to get this job. When I look back, there were many individuals who were qualified for this position, but I think the self-studying on investment-related and risk management strategies helped me get this position.

During my six years at UBS, I went from building the modeling side with respect to asset-liability management (ALM) to leading the LDI team. As the only actuary within the Global Investment Solution team comprised of 100 people, I got a chance to work with many intelligent individuals who had a different perspective on LDI versus working with traditional actuaries. This valuable experience allowed me to deepen my understanding of risk management and financial markets as well as become a more well-rounded investment professional versus being just a liability expert.

With LDI growing at the time, I made the switch to Legal & General Investment Management (LGIM) in 2010. LGIM has always been regarded as a global leader in LDI. With LGIM coming to America, this gave me an opportunity to start a new business from scratch and express my entrepreneurial side. My three years here have been great, with the U.S. business growing substantially. Recently, I have been given the opportunity to run the global solutions team, so I will be making the move to London shortly.

Aaron Meder, FSA, EA, CFA, MBA, was appointed as head of Solutions in January 2013, having previously joined LGIMA in 2010 as head of U.S. Pension Solutions. In this role, Aaron was responsible for construction and management of customized investment solutions, including LDI, for U.S. pension clients. Prior to joining LGIMA, Aaron was a managing director and head of Asset-Liability Investment Solutions, Americas for UBS Global Asset Management. At UBS, he also was a member of the Global Investment Solutions group and led the U.S. Pension Advisory Group and the Asset-Liability Investment Committee. Prior to UBS, Aaron worked at Towers Perrin and Watson Wyatt Worldwide. Aaron is a CFA charterholder, holds a BS in actuarial science from the University of Illinois and an MBA from JL Kellogg Graduate School of Management. He can be reached at aaron.meder@gmail.com.

From Watson Wyatt to Towers Perrin, I learned a great deal about the liability side as a traditional consulting actuary. The transition to UBS was a great learning experience into becoming a non-traditional actuary who understands markets and investments. Lastly, the move to LGIM has been a fantastic leadership and business management opportunity.

If I had to sum up how I got to where I am today, I would say three things. First, lots of hard work including considerable studying and self-education. Second, support from my parents and wife; whether it was my education or career, they were always there for me. Third, good luck played a big role. Even with all my hard work and support from my family, I easily could have ended up in a different role if luck did not play a role in my life.

STEVEN:
As an industry leader—the global head of Solutions Group at LGIM, you have been involved in a variety of client projects and industry changes. What do you enjoy the most about your career?

AARON:
What I enjoy most about being on the asset management and investment solutions side is the market is constantly innovating. The LDI market five years ago in the U.K. and United States is significantly different to today's LDI market. It's energizing and motivating that you have to stay a little ahead of your competition. You also don't want to get too far ahead of your competition because some of those investment solutions aren't commercially viable. Finding the balance between being innovative and coming up with commercially viable investment solutions is a very difficult thing to do, but I find this challenging and rewarding in my position.

STEVEN:
What do you think contributes the most to your successes? And how should every aspiring actuary develop these skills/traits? What is the greatest challenge you have faced transitioning from a traditional to non-traditional actuarial role? How did you overcome this difficulty?

AARON:
Communication in my role is important. Internal and external conversations play a large role along with managing internal stakeholders. Alongside, you need to be able to motivate and influence individuals inside and outside of your firm. The field we work in can be quite complex, but if you can break this down into language where individuals can understand, and, more importantly, make decisions off this then you can have great success.

Moving from being a traditional actuary to a non-traditional actuary, communication was not one of my strengths. Most actuaries are not thought of as strong communicators. Over the years, I worked hard to turn this weakness into a strength. I spent many hours practicing on presentation skills and going to Toastmasters meetings on my own personal time. It was quite painful at first; I never enjoyed getting up and speaking in front of people. After years of training, I have gone from being deathly scared to mildly anxious when publicly speaking. Whether or not you are looking at making the change from a traditional to a non-traditional actuary, I don't think you can overinvest in developing your communication skills.

STEVEN:
Obtaining an FSA for an actuary is the gold standard of hard work. However, you have a CFA designation and an MBA from Northwestern University. How have these shaped your career?

AARON:
The FSA took the most work to achieve. This gave me that objective credential that said you understand the liability side amongst other things. The CFA gave me another objective credential that said I understood the asset side, which proved valuable since more actuaries are being recruited to the investment world today. The CFA is highly valuable for anyone wanting to enter the investment world.

The MBA depends on your ambitions. I have always been fascinated by running my own business. I have been

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fortunate whether it was at UBS or LGIM to be given the responsibility and autonomy to run my division as a business. This means you need to think about many other things besides being an actuary on the traditional side or portfolio manager on the investment side.

Anyone looking to get an MBA in Chicago would likely agree that the University of Chicago (Booth) and Northwestern University (Kellogg) are the two top schools. The reason why I chose to go to Northwestern University is I felt this would allow me to round out my experiences and knowledge more so than the University of Chicago. My perception when looking at schools was that Northwestern was more focused on the softer side of things like marketing and business strategy. The MBA from Northwestern gave me a solid framework, education and background to navigate and make tough decisions on a daily basis.

Overall, the FSA, CFA and MBA from Northwestern University help me become more well-rounded and achieve my goals during my career.

STEVEN:
What are the hot topics right now in the LDI and pension risk management world?

AARON:
Right now, the interesting topics are surrounded around low interest rates and funding deficits. A typical pension plan may be 80 percent funded and the objective may be to reach 100 percent funded or even overfunded. Today, plan sponsors are asking, "How do I get to this objective of full funding in the most efficient way given our ability/willingness to contribute to the plan and our view on interest rates and equity markets?" These are the questions and discussions we are having with our clients. There isn't an easy solution to this problem, but the first thing many of our clients do is establish a glide path that sets out how the plan will be de-risked as both the market environment and plan's funding ratio change.

STEVEN:
Looking longer term, what do you think will be the challenges and opportunities for actuaries in the next three years? Five years? Ten years? How do you think we should get ready to meet these challenges?

AARON:
Within the finance and investment world, I think the biggest challenge and opportunity is the impending retirement crisis. Defined-benefit (DB) plans are dying a slow death. Defined-contribution (DC) plans are still somewhat unproven and questionable that they will meet the retirement needs of the next generation of workers that don't have a DB plan.

I think there's an opportunity for actuaries to help navigate through these retirement issues. What should DC plans look like? What should a target-date fund or target-income fund look like? What's the best way to achieve that retirement income you desire? There will be plenty of opportunity for actuaries who can come up with creative and innovative market-based and/or insurance-based solutions and plan designs to help individuals meet their retirement needs.

The more well-rounded you can be, whether it's understanding investment risks, financial markets or effectively communicating complex ideas in a simple way, will help you become ready to participate in these discussions.

STEVEN:
What are some of your hobbies and interests outside of your career?

AARON:
I enjoy spending time with my wife and kids. I like to barbecue in the summertime for my family in the Chicagoland area. On my own time, I really like to golf as well. ☆

Webcast Series—Essential Skills for Success

By Shirley Ai Yan Wu

The Actuary of the Future Section will be sponsoring a series of skills development webcasts in 2014 to groom young actuaries for immediate and long-term success. These webcasts will focus on both soft and technical skills that are important for the actuarial career.

The first webcast, Building Your Professional Image, aired on March 21. This webcast was designed for entry level actuaries to learn some tips for successfully building a professional image in different situations as they start their career in actuarial science:

- Selling yourself in networking events and career fairs
- Interviewing for your dream jobs or rotation positions
- Email and telephone etiquette
- Preparing for meetings
- Proper attire for different occasions
- Asking for performance feedback
- Negotiating for promotion/salary increase
- Speaking in public
- Preparing for corporate filming.

Our speakers included a senior actuary who is currently in a senior management role and a junior actuary who has extensive experience in giving career advice and mock-interviews to students.

The following are the other webcasts that will take place throughout the year. These subsequent webcasts will be tailored toward more experienced actuaries. Details will be posted to the SOA online calendar as they become available: http://www.soa.org/PDCalendar.aspx?type=session

Stay tuned!

PROBLEM SOLVING & EXCEL BEST PRACTICES [TENTATIVE JULY 22ND]

- Model building: Presented with an Excel template to show how to attack a problem from beginning to end
- Excel best practices: Instructions, commentaries, documentation, etc.
- Model control

COMMUNICATING RESULTS EFFECTIVELY [TENTATIVE SEPTEMBER]

- How to give an effective presentation
- How to communicate actuarial results to a non-actuarial audience
- Visualization: How to tell stories in graphics

BECOMING A LEADER [TENTATIVE NOVEMBER 19TH]

- How to plan for bigger projects
- How to delegate work effectively
- How to manage a team
- How to train, mentor and coach other people ☆

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Talk with a Risk Management Guru: Mike Smith, CEO of ING U.S. Insurance Solutions

By Joshua Rundle and Winnie Chen

Josh: It's a pretty exciting time for you and your company this year. This year will be the year that your company is transitioning from ING to Voya after quite a bit of anticipation. I really like the new name as it seems to capture what the industry is all about. Whether it is insurance, investments, or retirement savings, it really highlights the fact that as we roll along on this journey, you want to feel secure. Tell me a little bit more about why you are excited for this year's transition and what the name Voya means to you.

Mike: Well, I think for me, having joined what was then ING five years ago and seeing the transformation from where we were—which was a company that had just accepted a substantial amount of aid from the Dutch State and was going through a challenging process to determine what it was going to be in the future—now, we've had a successful IPO. We've gone to the capital market for a number of very successful capital races. I think the world understands our story and our employees do, too. Now that the preparation work is done, we are shifting our focus to executing and delivering on the things we told the outside world we were going to do. That's the exciting part now.

Josh: ING has a few different campaigns that I particularly enjoyed, being part of the industry and as an actuary. One of the campaigns I really like is the Orange Money campaign. Not only is it humorous, but it does a good job of getting people thinking about where their money is going and how it impacts their retirement outlook. But the one I want to briefly hit on is ING for Life. Maybe it's partially a generation thing, but I really enjoyed the experience on the website. It feels as though you are almost catering a product specifically for me. Can you tell me a little more about where you see technology like this taking us in the years ahead and how it might change the landscape of the industry?

Mike: Last week I changed roles to become CEO of ING U.S. Insurance Solutions unit, so the ING for Life is directly within my new responsibilities. Stepping back

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for a minute, life insurance ownership is at the lowest level since World War II. Some estimates of the protection gap range into the trillions of dollars. While as an industry this is clearly an opportunity, there is also a societal problem here. We have tens of millions of individuals who are not protected and are not taking advantage of some of the other opportunities that come from a solid life insurance and financial plan. I think there's a great opportunity for us as an industry and Voya particularly to build on tools like ING for Life to reach more of the millennials, if you will. To reach younger people and people who don't think they can afford it or have children and cannot afford it, ING for Life can help them understand and demystify life insurance and also help get their heads around retirement savings through the use of Orange Money. I think that's a primary challenge for us as a company and one that we are focused on.

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KNOW YOUR AUDIENCE. YOU CAN'T MAKE AN EFFECTIVE PRESENTATION IF YOU DON'T KNOW WHERE THEY ARE COMING FROM. YOU CAN'T BE INFLUENTIAL IF YOU DON'T UNDERSTAND WHAT IS IMPORTANT TO THEM.

The thing about ING for Life that I like is that it does capture the audience really well. The thing we need to continue to improve on is that it doesn't necessarily lead to a place that is fully satisfying for the person. It is the great tool to build awareness. We will continue to do that. We just need to take it to the next step.

Josh: Is the goal to make a direct-to-consumer sales channel more prominent by means of technology?

Mike: Well I think we need to recognize that we have an important relationship with our distribution partners that we need to continue to honor and work with. But there are also parts of the population that just aren't adequately served. We need to find ways to make sure they are getting served, either by helping the distribution partners reach them or finding other means. I am not saying we are going direct. We have a lot of customers who need our product. And they are not finding their way here so we need to collectively find the way to get them there.

Josh: If you don't mind, let me take a step back. You came to ING in the heart of the financial crisis. What attracted you to ING at this point in your career?

Mike: Well, I would say it was a combination of things. Primarily, out of chaos comes opportunity. I thought I could add something to the organization that it needed. From a professional level, it was a great chance to go somewhere and bring my experience to bear.

Josh: We mentioned that you entered ING in the middle of the financial crisis. How did entering ING at that particular moment change your thoughts about risk? How did it make you a better chief risk officer (CRO) as you later took on that role?

Mike: First of all, my prior company, which I have nothing but admiration for, didn't have a distinctly articulated risk function. It was instead embedded throughout the business. I was impressed by how the risk function in ING was fully separated from the rest of the business and how that was envisioned to work. I was also intrigued by the three lines of defense model. Also, my prior experience of having risk deeply embedded into business helped me find what I would call a middle ground, which is a risk function that is independent, can raise objections, and isn't fully ruled by the business. But at the same time, a big part of our mission is to make sure the business is thinking about risk itself and is not looking to us as merely a gatekeeper. We are not the people that say yes or no. We advise—what the risks are and what are the best ways to navigate them. We work with the business to find a balanced solution to achieve the goals of the overall organization. I feel we have created a very effective Risk team that is a key member of every business unit. We get listened to. We have a strong influence over where the organization is going. We are not just an aggregator of risk data. We are a partner. I think that's really critical.

Josh: This is a good transition to my next question. We know that ING will be transitioning from a Dutch subsidiary to an independent U.S.-based company. Can you tell us about how coming from a Dutch subsidiary better positioned the company from a risk standpoint and how it will change your thinking going forward?

Mike: I would say this is not so much about being Dutch as it is about being European. The heritage of a fully articulated risk function with a lot of emphasis on economic measures has put us ahead of the game in some aspect. I think there are some things we need to modify and will have the freedom to do so. We will also be able keep the things we find really useful. We will spend less time focused on pure market value measures, which showed some weaknesses during the financial crisis. In other words, I think we have a chance to use the best of both worlds. I think the other transition for us is from a European parent that had ample capital, and had given us a very clear mandate to grow, to one where capital is limited and we now access the capital markets directly. As a result, we have a whole different set of external stakeholders to get used to. It is a very different set of communications both in terms of style and content to the outside world versus talking to a European parent. The questions that we're asked are very different. The focus is very different.

Josh: How much do you see yourself using the market consistence methodology going forward?

Mike: I think we will use it in spots. We find it helpful in pricing. It helps us filter out potentially unpriced options that we have sold to policyholders. We can make better economic decisions that way. I think we will use some of those elements in our capital assessment.

Josh: You spoke at the annual meeting on enterprise risk management (ERM). There are a couple of thoughts that I want to touch on. Actuaries like to use large, complex models and very sophisticated metrics that some may say are difficult to understand. From your experience on both sides of the table, how does a young actuary go about tackling complex risks while still maintaining the simplicity needed to help senior-level management quickly grasp concepts and make decisions accordingly?

Mike: A couple of things. Align the things you are measuring with those things that management views as important. And there are two ways to do that. One is to define the risk measure and embed that into management objectives. That's an approach I've seen done. We chose a different approach, which is to understand the exposure to things that management already cares about, like capital and earnings, and show what can happen under various conditions. Use scenarios that feel real; I think it's very hard to relate to events that we present as 1 in 200 or 1 in 500. It's just too easy for management to say that will never happen. Start with the 1 in 5 or 1 in 10, then go to 1 in 20, and build momentum that way. The way to really be accepted is to start by building risk metrics that management relates to and lead the organization to make decisions in light of those matrices.

Josh: I think that is some great insight for younger actuaries. Let's dig just a bit deeper on that. How would you recommend relating to management and gaining credibility in an often limited amount of time?

Mike: This is another thing I mentioned in my presentation. Know your audience. You can't make an effective presentation if you don't know where they are coming from. You can't be influential if you don't understand what is important to them. Once you know that, you can find ways to help them understand risk in the context of the things that are important to them, what they need to be worried about and how we can collectively try to solve the problems.

Josh: I really appreciate you taking the time, especially during quarter-end, to talk to us about risk. One last question relating to your success in the industry coming from an actuarial background: What is a key piece of advice that you would give young actuaries, early in their career, that will help them gain a "Big Picture" mentality that will ultimately help them progress throughout their career?

Mike: First of all, you have to want to do that. For many in our profession, it's very comfortable to stay in the details, and there is nothing wrong with that. But if you aspire to be a business leader, your actuarial training is an enabler. Also seek out other learning opportunities as you go through your career. Focus on expanding your knowledge more than about progression up through the ranks. One mistake a few people make is when they have the opportunity to

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move into a new business, maybe move from finance to a product area, but at the same level they ask "Why would I take this if it's not a promotion?" The better way to get to a position where you can get the bigger promotion is to have a broad skill set. The way I have approached career decisions is to focus on whether there is an opportunity for me to continue to learn. If I felt I was in role where my pace of learning had slowed, I would start watching for new positions and talking about other opportunities. I would look for opportunities that would be new and different, either in terms of subject matter, function, and then if there's a management opportunity, what can I learn from the management perspective?

Josh: Thank you very much for your insight today. It is certainly appreciated.

Mike: I wish you the best of luck. ☆

Meet the Winners of the 10th Speculative Fiction Contest!
Interview with Mel Windham (Second Best Overall Story)

By Madeleine Zhang

EDITOR:
Mel, thanks for participating in this interview with *Actuary of the Future (AoF)*! Can you tell us a bit about yourself and briefly run us through your career history?

MEL:
I'm an actuarial. (That's what you call a student before they've finished taking the exams.) Since 1998, my career spans three different jobs … all in North Carolina.

I'm also a musician, a composer, and an aspiring writer. You can catch my videos on YouTube, and I hope to be published sometime very soon.

EDITOR:
What made you interested in entering this contest? What is your secret of winning? Do you have any advice to share with future contestants?

MEL:
Carol Marler and the online Rebel Outpost Forum introduced me to the contest. In 2007, I debuted with "Sam McAtry, P. I. and the Case of the Dead People." It was a hit on the Rebel Forum, but it didn't win any awards.

The contest is awesome. All stories are published—even the really bad ones. Plus, people will actually read your story. When the judging is finished, you'll get very valuable critiques from the editor (currently Gary Lange), and the judge, Dr. Bob Mielke.

My secret to winning? Keep entering, and listen to what Dr. Mielke has to say. It's all too easy to say, "What does Bob know? He doesn't get my story." But remember: He's the judge! If you give him what he wants, you'll have a good chance of winning.

Dr. Mielke basically asks the same things that professional magazines ask for: a good story, good grammar, and something that intrigues and grabs the reader.

In order to hone my craft, I've taken a couple of writing classes. I strongly suggest Uncle Orson's Writing Class, which I believe gave me the best advice available. I also joined the online critiquing community at *critters.org*. They were invaluable in helping me fix up my last story and achieve an award.

EDITOR:
What inspired you to write "Actuarial Year"? Did you have any unique experience?

MEL:
The idea came to me: What if everybody in the world was me? What would happen? At first I didn't think there was much of a story. But then I asked: What if this person didn't know people were slowly turning into him and it took him a while to figure out what was going on? I couldn't stop laughing.

It took me a few months to write the story. It was a funny idea, but I wanted it to be a "serious" story, and it took a while to get the right balance.

As for unique experience, I poured a lot of myself into the story. Yes … I would really love it if someone made chocolate banana cheesecake ice cream.

EDITOR:
Have you always had a love for writing? What do you like to write about? Are you writing any new stories?

MEL:
My dad inspired me to write when I was in high school, and I've been writing ever since. By far, I usually write humor or sci-fi.

I have several projects in the works. My upcoming novel *Time Sleuths* promises to be a hilarious parody of time travel stories. I already have an idea for the 2015 actuarial contest … I can't tell you what it is, but it'll be an

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experiment on the funnier side while touching on serious topics.

I also maintain a blog: "The Word of Mel." It follows my journey from aspiring writer to (hopefully) a well-known published author.

EDITOR:
Why did you choose an actuarial career? What is an alternative career route for you?

MEL:
I discovered actuarialism right after college. I was attracted by the bits about lots of money and working with math. It's done me well so far.

Though, I have just now accepted a job with a bank helping to develop models. It's my first time being away from an "official" actuarial job, but this company will provide support for me to finish the actuarial exams. It's an exciting opportunity.

EDITOR:
To those who have not read (and have read) your story, could you share with us what message are you trying to send? What do you want people to remember?

MEL:
First, the world has lots of problems. Many of these are exacerbated by human emotions of hate, prejudice and malice. Yet, actuaries tend to have the gift of looking beyond these emotions, and finding real solutions to any and all problems, while maximizing benefits to all parties involved. I really do believe that if we actuaries were given the reins to solving the world's problems, then we'd get the job done.

Secondly, we are our worst enemies. If everyone became "me" then we would just get annoyed with each other. Variety makes the world go around.

EDITOR:
Could you share with us your favorite book?

MEL:
I'd say it's a close tie between Orson Scott Card's *Treason*, Isaac Asimov's *Foundation's Edge*, and Dan Simmons' *Hyperion*. (Ask me again in a month and the list will change.) I love books that successfully send me into another world and give me something to look forward to at the end of the day.

EDITOR:
What have you done with your prize money?

MEL:
First, I took a picture of the check. After all, it's my first writer's "paycheck." Then I put it toward a new Yamaha keyboard. It jams!

Overall, the whole experience with participating in the contest has been a positive one. I recommend it for all undiscovered writers. Give it a try … write what's on your mind, and see what comes out. ☆

If you would like to read Mel's story "Actuarial Year" or other entries to the contest, you can find them at http://www.soa.org/Professional-Interests/speculativefiction-contest.aspx

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