SOCIETY OF ACTUARIES
PREDICTIVE ANALYTICS AND FUTURISM SECTION

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Seven Trends That Will Change Your Future—Part Two

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What do data, technology, offices, skills, and cultural perspectives all have in common? Significant transformation.

Technology, robotics, cognitive computing, and AI exponentially advance every year. Data constantly expands with an influx of new numbers and figures converging into a higher resolution picture of the world. Cultural perspectives are shifting alongside priorities and preferences of the population. Lastly, offices are no longer simply clusters of cubicles dotted with cabinets and desktops.

The Exponential Professional team analyzed seven trends to foresee the financial professional of the future, particularly the actuary, and how to make the most of it. These trends are Technology is Everywhere; Tsunami of Data; Artificial Intelligence (AI), Cognitive Computing, and Robotics; Jobs Vulnerable to Automation; Diversity/Generational Change; Careers 100-Year Life; and Explosion in Contingent Work. Part Two of this two-part feature focuses on the last four trends.

SECTION 4: JOBS VULNERABLE TO AUTOMATION

What's Trending

One of the industry's current hot topics is how the advancement in cognitive and robotic technology impacts the future of our current jobs. Will it eliminate jobs? Which jobs will be eliminated? Will it enhance jobs? To answer these questions, one needs to understand the advancement level in implementing these technologies. Deloitte's Global Human Capital Trends survey indicates that many organizations are exploring these technologies, but only some have fully implemented them. Of the survey respondents, 36 percent are using robotics process automation (RPA), 26 percent are using robotics, 22 percent are using AI, and 22 percent are using cognitive technologies.[1] Additionally, organizations' current view of the future is relatively optimistic. Only 38 percent of respondents believe technology will eliminate jobs within the next three years, and only 13 percent believe it will eliminate a significant number of jobs.[2] The key trend is not the elimination of jobs, but the transformation of jobs, and how to prepare today's workforce for their future roles.

10 Years From Now

These technological trends will lead to a great transformation in the actuarial profession. The focus is often on what skills will no longer be needed and become obsolete. However, there are several skills actuaries can develop to enhance their value in the future. These include influential communication, strong judgment and leadership, continuous learning, deep collaboration, creativity when faced with complex issues, and continuously evolving and upskilling oneself. These are the skills that are not vulnerable to automation, the ones that are used to solve problems actuaries have not seen before.

To solve such problems, actuaries will need to shift focus away from repetitive work and instead sharpen those uniquely human skills. Actuaries will also need to maintain a constant focus on learning and development to be tech fluent and understand emerging technologies. A successful marriage between

traditional actuarial work and emerging technology will lead to an enhanced actuarial work product, one that can provide tremendous value to business leaders. Deloitte's Human Capital Trends report discusses the advent of superjobs. These are roles that combine work and responsibilities from multiple traditional jobs, using technology to both augment and broaden the scope of the work performed and involve a more complex set of domains, technical, and human skills.[3] The future actuary is a strong candidate for a superjob, as jobs will emerge in categories that complement emerging technology, rather than substitute it. Specifically, actuaries will see an increase in jobs that require customer interaction and management, understanding of regulation and risk, industry experience and content expertise, knowledge of product and the connection to risk, capacity to anticipate emerging trends, flexibility and agility, and the ability to design the right network and partnerships.

SECTION 5: DIVERSITY/GENERATIONAL CHANGE

What's Trending

The shift in generational diversity of the workforce is apparent cross-industry. Baby boomers compose 26 percent of the workplace in 2018, 12 percent more than in 1998.[4] With the increase in average retirement age for baby boomers and Generation X, this causes downstream impact around succession planning and career development, often stunting promotion opportunities for younger generations.[5] Millennials, the largest group in the workforce, are focused on adapting and growing their skills. Meanwhile, the digitally inclined Generation Z utilize a gig-economy approach as a solution to increase opportunities and experience a wider breadth of positions.

10 Years From Now

Ten years from now, we will have six generations of actuaries in the industry. With this increased diversity, companies will develop models that meet the employee where they are. Companies will use fungible models for actuaries with 30+ years of experience enabling them to shift to a seasonal work lifestyle. Younger generations are already adopting a similar work environment, emphasizing the need for companies to shift their operating models. Deloitte's Human Capital trends indicate that 76 percent of participants rated internal talent mobility as an important issue.[6]

This alternative workforce gives managers more flexibility to form a team consisting of people with diverse approaches. Alternative workers will be incentivized to consistently perform well through shorter-term projects and frequent feedback. Companies will invest in alternative workers to increase work output and overall efficiency. It is important that the entire workforce, both alternative and traditional, be treated with respect about culture, inclusion, and work assignments. Considering the generational collaboration and increased diversity projected for the future, it is imperative for companies to adopt flexible work environments to stay afloat in the market.

SECTION 6: CAREERS 100-YEAR LIFE

What's Trending

The human lifespan incased steadily over the past decades, and average lifespans will continue to increase over time.[7] Leaders and workers now need to prepare for a career that can span 50–60 years out of a potential 100-year life. Today's actuaries will have careers that cover a wider breadth of topics and industries than past actuaries, increasing the importance of communication and collaboration skills as they expand their capabilities. Additionally, the half-life of today's technological skills shrunk to two years, caused by rapid adaptation to new relevant technologies. Longer life expectancies, longer careers, and shorter skills' life call for the need to create a diverse learning portfolio that supports a diverse workforce.

10 Years From Now

Future actuaries will experience different learning processes than current actuaries. Actuaries of the past gained experience and knowledge through three linear learning stages: college, specialization in work (typically through exams), and the post-exam portion of their career. With an increasing health span across all populations, actuaries will have longer careers that force them to broaden their scope of expertise multiple times. Actuaries will shift from the functional structure with strict hierarchies to one that is team-based or matrix oriented. They will also be encouraged to take risks and assume more strategic, nontraditional roles within the organization. Organizations can provide sabbaticals and retraining/reskilling programs to keep top actuarial talent up to date. Additionally, actuaries will have to adapt to micro-learning solutions, learning things in minutes and hours rather than months, to keep ahead of disruptors.

The future of actuarial exams will revolve around testing communication, collaboration, and problem-solving skills. Studying and taking these exams will be radically different, seen through more experiential-based credentialing and team-based processes. The traditional "natural selection" process of exams does not encourage creative and agile thinking, a skill that will be key. An actuary who combines knowledge of the actuarial domain and emerging technologies with effective communication will be more prevalent and valuable to organizations. This is even more important as actuaries branch out to non-traditional roles outside of insurance: applying the general, not industry specific, skills to their roles. Overall, the future actuary will have to adapt more often as skillsets diminish quicker and careers lengthen.

SECTION 7: EXPLOSION IN CONTINGENT WORK

What's Trending

The alternative workforce has seen major growth in recent years and is moving away from its definition as temporary contract work to a mainstream source of employment. Alternative work arrangements accounted for 95 percent of net new employment between 2005 and 2015. By 2020, 40 percent of people in the U.S. are expected to be in alternative work arrangements, and

the number of self-employed workers in the U.S. is expected to triple to 42 million.[8] In addition, the percentage of workers who mostly telecommute has quadrupled to 24 percent over the last 20 years. Given these trends, there is a great opportunity for organizations to tap into the alternative workforce going forward; however, survey results show that they are not necessarily ready to take this step. Deloitte's Human Capital Trends survey shows that only 28 percent of organizations could effectively accommodate the diverse needs of alternative workers.[9] Meanwhile, 45 percent of organizations say they are having trouble filling open positions.[10] Many countries are also seeing declining birth rates,[11] decreasing the size of the labor pool. Given these challenges, it will be essential for organizations to utilize and effectively manage the alternative workforce.

10 Years From Now

The competitive advantage for actuaries will be tapping into the crowds of non-actuaries. This alternative workforce could help develop unique product designs, develop new ways to manage risk, build predictive models to marry AI and cognitive computing, and automate broken processes that contribute to inefficient and suboptimal service delivery. Work that is not actuarial in nature will continue to be completed by non-actuaries.

Another challenge for actuarial leaders in the future will be managing an alternative workforce with different backgrounds, cultures, and motivations. Historically, entry level actuaries come in with similar mindsets and goals such as passing exams and becoming experts in an aspect of actuarial work. There will likely be a portion of actuaries who strive to become strategic business leaders, but there will also be a portion who view actuarial work as a small aspect of what they do. Deloitte's latest millennial study found that 64 percent of workers strive for "side hustles" to make extra money.[12] Down the road, actuarial work could be considered a "side hustle" for someone who doesn't necessarily have a core actuarial background but is an expert in machine learning. Consider the possibility of an app like Uber that could be utilized to hire these alternative workers during high stress seasons for actuaries. Such options will continually be presented as contingent work becomes more mainstream. Organizations that efficiently utilize and respect traditional actuaries and alternative workers will be industry leaders in managing the alternative workforce.

TAKEAWAYS

It is important to note that with these ever-evolving practices in the workplace, it is vital for companies and professionals to be adaptable and add human touches to steer the technologies used at work. With the vast amount of data available and disruptive technological forces at work, actuaries face an increasing pressure to finish more work quicker and effectively. However, this increase in change comes with an increase in possibilities if we are willing to adapt, evolve, and learn. Specifically, actuaries have a great opportunity to redefine their role to one that is more value added and strategic, with a new focus on productivity, business insights, and performance. ■

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ENDNOTES

1 2019 Deloitte Human Capital Trends Survey

2 2019 Deloitte Human Capital Trends Survey

3 2019 Deloitte Human Capital Trends, "From Jobs to Superjobs"

4 https://www.km.deloitteresources.com/sites/live/consulting/KAM%20Documents/All%20Consulting/KMIP-5939286/us-fsi-dcfs-aging-workforce-in-financial-services.pdf

5 Dimple Agarwal et al., "The longevity dividend: Work in an era of 100-year lives," Deloitte, March 28, 2018

6 2019 Deloitte Human Capital Trends Survey

7 Caryl Rivers and Rosalind Barnett, The Age of Longevity: Re-Imagining Tomorrow for Our New Long Lives (New York: Rowman & Littlefield, 2016)

8 Kelly Monahan, Jeff Schwartz, and Tiffany Schleeter, Decoding Millennials in the gig economy: Six trends to watch in alternative work, Deloitte Insights, May 1, 2018

9 2019 Deloitte Human Capital Trends Survey

10 2019 Deloitte Human Capital Trends Survey

11 James Gallagher, "Remarkable decline in fertility rates," BBC News, November 9, 2018

12 Deloitte, 2018 Deloitte millennial survey: Millennials disappointed in business, unprepared for Industry 4.0," 2018