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Big Data and Artificial Intelligence (H) Working Group
Phoenix, Arizona
March 16, 2024

The Big Data and Artificial Intelligence (H) Working Group of the Innovation, Cybersecurity, and Technology (H) Committee met in Phoenix, AZ, March 16, 2024. The following Working Group members participated: Kevin Gaffney, Chair (VT); Michael Humphreys, Vice Chair (PA); Mark Fowler (AL); Tom Zuppan (AZ); Ken Allen and Mitra Sanadajifar (CA); Michael Conway and Carol Matthews (CO); George Bradner and Wanchin Choy (CT); Rebecca Smid (FL); Andrew Hartnett (IA); Weston Trexler (ID); Erica Weyhenmeyer and Shannon Whalen (IL); Victoria Hastings (IN); Shawn Boggs (KY); Tom Travis (LA); Caleb Huntington, Rachel M. Davison, and Jackie Horigan (MA); Kathleen A. Birrane (MD); Sandra Darby (ME); Tina Nacy (MI); Phil Vigliaturo (MN); Cynthia Amann (MO); Tracy Biehn and Angela Hatchell (NC); Colton Schulz (ND); Christian Citarella (NH); Justin Zimmerman (NJ); Nick Stosic and Hermoliva Abejar (NV); Sumit Sud (NY); Judith L. French, Matt Walsh, and Rodney Beetch (OH); Landon Hubbart (OK); TK Keen (OR); Elizabeth Kelleher Dwyer (RI); Michael Wise and Will Davis (SC); Travis Jordan (SD); Emily Marsh (TN); J'ne Byckovski and Randall Evans (TX); Scott A. White, Eric Lowe, and Michael Peterson (VA); Bryon Welch (WA); Nathan Houdek (WI); Allan L. McVey (WV); and Jeff Rude (WY). Also participating was: Trinidad Navarro (DE).

1. Adopted its 2023 Fall National Meeting Minutes

Commissioner Humphreys made a motion, seconded by Commissioner Birrane, to adopt the Working Group's Dec. 1, 2023, minutes (*see NAIC Proceedings – Fall 2023, Innovation, Cybersecurity, and Technology (H) Committee, Attachment Two*). The motion passed unanimously.

2. Discussed its Project Plans for 2024

Commissioner Gaffney discussed the Working Group's project plan for 2024. He noted that although specific timelines were noted, in some cases, the timelines should be treated as estimates to allow for flexibility. Commissioner Gaffney introduced each project by first citing the relevant Working Group charges.

The projects relevant to the charge of "researching the use of big data, AI/ML in insurance—communicate findings and present recommendations to the H Committee" include: 1) collaborating with the Center for Insurance Policy and Research (CIPR) to perform additional analysis of the artificial intelligence (AI)/machine learning (ML) survey results; 2) comparing survey results to the bulletin to identify areas where it can be improved or where additional follow-up with industry should be considered; and 3) developing the health insurance AI/ML survey, considering a plan for continued survey work.

Commissioner Gaffney noted that the development group has convened with representatives from 17 states (Colorado, Connecticut, Illinois, Iowa, Louisiana, Maryland, Michigan, Minnesota, Nebraska, North Dakota, Oklahoma, Oregon, Pennsylvania, Vermont, Virginia, West Virginia, and Wisconsin) to develop the AI/ML health survey. Further, he noted that the health insurance products to include in the survey were narrowed down to comprehensive major medical (individual and group), student health plans, limited benefit plans, and stop loss/excess loss plans and that, as with previous surveys, the Working Group will plan to engage with companies in a pilot study of the survey to solicit feedback on the initial survey design. These meetings will be one-on-one, regulator-to-regulator meetings. Results are anticipated to be reported by the 2024 Summer National Meeting.

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Commissioner Gaffney stated the Working Group will also work concurrently to hold regulator-to-regulator sessions with selected private passenger auto (PPA) companies to get an update on their AI/ML activities since completing the auto survey about two years ago and talked about developing updated surveys that can be issued periodically to stay abreast of industry uses of AI/ML in their operations.

The projects relevant to the charge of "monitoring and responding to state, federal, and international activities on AI to address impacts on insurance laws or regulations" include: 1) receiving a report from the volunteer group comparing the model bulletin to the White House Executive Order; and 2) continuing to receive federal and international updates on AI.

The projects relevant to the charge of "overseeing the work of the Collaboration Forum on Algorithmic Bias" include: 1) tracking adoption of the model bulletin; and 2) developing a reference glossary/lexicon. Commissioner Gaffney noted that the discussions on the initiative to create an independent synthetic dataset are tabled for the time being, pending resource planning and working through logistical issues and that this project will be revisited in the future as other projects take shape.

Holly Weatherford (NAIC) provided an update on the adoption of the model bulletin. In her update, she noted that the NAIC has created a model bulletin state adoption map that will be posted to the Working Group's web page in the next week or so and will be updated monthly. As an update, six states have adopted the model bulletin in less than three months. Weatherford said the NAIC also acknowledges action that was taken by two states prior to the model bulletin's adoption, which issued guidance or adopted a specific law or regulation. The NAIC is performing a deeper dive that will go into more detail about how states have adopted the model bulletin and will provide a quick reference grid as a guide that tracks it as well. Weatherford concluded by stating that the NAIC is looking into providing another tool to help guide state insurance regulators through the drafting of the model bulletin, taking into consideration industry comments that were provided throughout its development.

Commissioner Gaffney concluded that the Working Group plans to have additional coordinating discussions on the projects relevant to the charge of "coordinating educational content for regulators on Big Data and AI in insurance," pending the advancement of the Innovation, Cybersecurity, and Technology (H) Committee's related initiatives to avoid duplication of effort.

Commissioner Gaffney then invited discussion on the work plan from Working Group members, interested state insurance regulators, and interested parties.

Peter Kochenburger (Southern University Law Center, NAIC Consumer Representative) asked why the information about the adoption of the model bulletin will be kept in a regulator-only setting. Commissioner Gaffney clarified that this information will be made public. Kochenburger expressed the need to provide specific consumer protections and requirements beyond the high-level principles set forth in the model bulletin.

Scott Harrison (American InsurTech Council) asked whether the AI/ML health survey will include natural language processing (NLP) or robotic processing automation (RPA). He said the concern is that the survey should include the full scope of what is currently being used by insurance companies. Commissioner Gaffney acknowledged that concern.

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3. Heard a Presentation on a Survey of Research Activities Conducted by the Academy and the SOA Related to Big Data, AI, Fairness, Bias, and Governance

Dorothy Andrews (NAIC) discussed the development of a list of technical papers and a webinar from the American Academy of Actuaries (Academy) on the issues of bias, explained possible sources of bias, the general problems associated with data biases, AI, how AI unfairness could happen, how to test for bias, and a framework for evaluating an analysis of bias. She highlighted some of the questions raised during the panel presentation, including inquiries about the definition of big data, methods to avoid bias, the difference between data scientists and analysts, and the importance of including social scientists in discussions about algorithmic accountability.

Andrews discussed various types of bias, such as sample bias, label bias, model pipeline bias, and application bias, and the challenges associated with measuring and addressing them. She emphasized the importance of considering fairness metrics and tests when evaluating bias in AI models and noted the Academy is working to address these questions and working on papers about algorithmic auditing for bias and political bias in pension evaluations. She also mentioned a presentation on property and casualty bias by the Academy and the need for an increased understanding of AI bias concepts within the profession.

In addition, Andrews noted other initiatives from the National Institute of Standards and Technology (NIST) and the International Actuarial Association (IAA) to set standards and provide education on AI governance and shared her involvement in various research initiatives, including a study on consumer awareness of third-party data used in auto insurance premiums, and her Ph.D. work on social justice issues in auto insurance rating. Andrews acknowledged the ongoing need for education and awareness around bias in AI within the regulatory and professional communities.

4. Received an Update on International Developments on AI/ML in Insurance

Ryan Workman (NAIC) highlighted the involvement of the NAIC and state insurance regulators in international efforts concerning AI/ML, including participation in the International Association of Insurance Supervisors (IAIS) FinTech Forum and the Organisation for Economic Co-operation and Development (OECD) Insurance and Private Pensions Committee (IPPC) workstream on AI. Workman noted that the AI/ML subgroup of the IAIS FinTech Forum conducted a thematic review of existing guidance on AI/ML and model risk management from 12 supervisory authorities and international organizations, including the NAIC, which aimed to facilitate the exchange of supervisory practices and experiences, particularly in addressing potentially new or heightened risks associated with AI/ML. Further, the NAIC will contribute to the upcoming development of an IAIS application paper on AI/ML in 2024 and continue participating in IAIS FinTech-related discussions and developments, including discussions on emerging trends in SupTech.

Workman also noted the establishment of the Innovation and Technology Working Group within the EU-U.S. Insurance Dialogue Project, in which members discuss the relationship between innovation, technology, and insurance, specifically the increasing use of advanced data analytics in the insurance sector, including the benefits and concerns related to AI/ML in pricing and underwriting. The use of new technology and large datasets in pricing and underwriting may potentially lead to excessive segmentation of the risks, unfair/unlawful price discrimination, overreliance on third-party vendors, and the inability to verify data accuracy.

Workman summarized recent discussions within the workstream, including topics on appropriate regulatory frameworks for AI/ML in insurance governance and impact on historically underrepresented groups, and concluded by mentioning that discussions on regulatory developments such as the NAIC AI model bulletin and the EU AI Act will continue in 2024.

Having no further business, the Big Data and Artificial Intelligence (H) Working Group adjourned.

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