## Advisory topic:  Virtualization/Automation

**Industry Maturity Index:** '*Now*', '*Short-term*' (1-2 years), '*Long-term*' (3-7 years or more)

**Why this is important:**  Virtualization (Automation) will impact the insurance industry by allowing agencies, carriers, and clients in other industries to automate certain tasks in order to reduce the resources, including energy, time, and labor, needed to do business.

**What is it?**  Virtualization (Automation) is the use of various systems to operate equipment, machinery, and software to complete a process with limited, reduced – or no - human interaction.  Imagine home and car doors automatically unlock as you approach, coverage is automatically secured and implemented as you purchase a new car, travel insurance is automatically calculated and secured as you book international travel. *Note:  This background on Virtualization is from an automation perspective only – this is not the type of Virtualization that is used in IT, such as for* VMWare™ *or virtual servers, virtual machines, etc.*

**Broad Implications / Uses:**  This has applications across many spectrums of our lives;
- Machine automation in factories and plants.
- Software automation in businesses (automatic ordering systems, automated accounts payable systems, etc.), including agencies.
- Automated entry systems into your office and home.  Cars already automatically unlock when their key gets close enough.  There are also potential applications for personal and business access & garage doors.

As automation is widely embraced across all industries, more time and resources can be devoted to the core business of an organization.  At some point in the future, automation will be fully-realized and will no longer be able to reduce the resources needed for an organization to operate.  However, as utilization of automation rises, so does the importance of people who can provide thought leadership, code, advice and maintenance for the automated process.

**Economic Impact(s):**
- Restaurants are exploring virtualization (automation), and it will likely reduce the number of employment opportunities in this industry.
- The online shopping experience has been made possible by the automation of processes, such as warehouse robotics (Amazon, Zappos, others).
- Production automation has been in full force for decades, and processes are aging.
- Automated transportation systems will arrive over the coming years as more devices are connected to the Internet (Internet of Things/IoT), allowing cars to communicate with one another
- Automated ordering systems in offices will allow for devices to automatically order supplies as needed with little to no human interaction or monitoring.
- Automated home appliances are already on the market with refrigerators that know their contents, and can order supplies (milk, eggs, etc.) from your grocery delivery when stock runs low.

Overall, automation will allow for a reduction in operational resources, but it will also likely impact employment, as many traditional jobs will no longer be available.  Education will change to satisfy the needs of these new process in order to avoid high unemployment numbers.

**Insurance Industry Implications:** Automation can have both positive and negative impacts on the insurance industry, including the following:

- Positive Impacts
    - Reduction in the resources required to do business, in the areas of policy checking, data entry, monitoring for supplies such as printer toner, and even general supplies such as toiletries, pens, pencils, and paper.
    - As more automation is adopted in other areas, more opportunities will arise to provide sound advice on the risks presented by automation.
    - The claims process will become quicker and more efficient as the people in the process will only be needed to correct inconsistencies and issues.
    - There will be a greater need for coverages for EDP coverages.
    - This can also include Virtual Advisors, however ACT has addressed this in a separate Risk Advisory on Machine Learning. Think about being able to transfer your insurance knowledge and expertise virtually; how many more people could we touch?

- Negative Impacts
    - As unemployment may rise due to automation, workers comp premiums could also drop, reducing the ability to profit from this type of coverage.
    - It will take dedicated, planned effort to stay on top of changing industry trends and processes.
    - It is going to take collaboration between carriers, vendors and agents to get this right.

- Indeterminate Impacts (if required)
    - Clients looking to take advantage of their automation with discounts, etc.
    - Getting EDP coverage for your smart home or driverless car.
    - New process becoming reality now.

**Recommended Actions:**

**Agents -**
- Understand when payment & coverage points can be enacted for on-demand insurance – Review agency workflows to determine the points that you can leverage virtualized automation to provide instant and superior service to customers – During business hours and after hours.
- Ensure agency leadership and staff are aware of the basic automation concepts and applications.
- Review your current customer base for possible impacts.
- Investigate markets for automation coverage, for both the automation providers, and the automation consumers.
- Know your carriers' stance and offerings in this area.

**Carriers -**
- Investigate offering coverages for all industries implementing automation systems.
- Provide clear, proactive education resources for your agency customers on your offerings and the policy implications.

**Vendors -**
- Ensure management, quoting, and contact systems have the ability to handle these as specialty products.

**Examples/Resources:**

[The Virtualized Insurance Value Chain](#)
[Capgemini – Top trends for insurance automation in 2017 – includes virtualization](#)
[Developing Home Automation Devices](#)

**Evolving Technology Caution:**

As the utilization of automation grows, so does the risk that the automation will fail.  This will mean that the systems will rely on expert people to resolve any issues as soon as they arise in order to keep the automated business running.

**Call to Action:**

- Educate yourself and your agency staff on automation and the current trends around it in your area.
- Educate your clients on the risks involved with automating processes.
- Subscribe to resources that will continue to keep you updated on emerging trends in this area (Property & Casualty 360, Insurance Journal, Coverager, etc.).

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