Cutting Bureaucratic Tape to Bring Better Services to Veterans
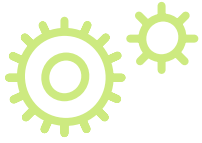
Challenge

One of the Veterans Affairs Department's most important responsibilities is offering benefits and compensation to soldiers who have borne disabilities for their service. To receive compensation, veterans submit an application, Form 21-526EZ, detailing the extent of their disabilities, and VA reviews necessary records, offering medical examinations and assisting veterans in finding proof to back up their claims.

On average, VA receives 1.7 million of these forms a year from veterans applying for disability compensation and related benefits. Sixty percent, or more than 1 million, are received in the mail. For veterans, the paperwork involved in these forms delays the time until they receive their benefits, and forms that are received in the mail are especially laborious. Veterans have to wait an average of 100 days for forms to be processed, and many forms can take far longer.

VA wants to follow up on benefits applications as quickly as possible, and in its era of digitization, forms submitted online can be processed through language-reading software. The forms submitted by mail, however, almost always have to be manually sorted, evaluated and logged before they can be acted on, requiring significant costs and time from VA employees.

The department has used software to accelerate the process for mailed applications, digitizing the forms and then scanning them automatically to detect types of disability. With language recognition capabilities, software can recognize phrases such as "hearing loss" and classify the form appropriately.

Unfortunately, the program is very limited in scope — capturing just 1% of the applications submitted through mail, or 10,000 of 1 million — as it fails to account for misspellings and alternate phrasings or descriptions.

Case Study:
Digital Transformation

For more information about digital transformation in government, download GovLoop's guide "Going Digital: Your Guide to Becoming a Modern Government."

Solution

As part of the VA's modernization strategy, the agency is pursuing a way to update the processing of disability forms.

Nelson Colon, a Presidential Innovation Fellow on detail in VA's Office of the Chief Technology Officer, partnered with Bennett Gebken, a VA employee at the Veterans Benefits Administration. Gebken developed a solution on his own time on a personal laptop. However, lacking a development or data science background, he'd been unable to apply his model to VA's Form 21-526EZ conundrum. Coming from the private sector, Colon had most recently worked at Microsoft developing machine learning products and at a cybersecurity startup working with natural language processing. The previous language processing program at VA that picked up on 1% of submissions was to be replaced by a machine learning solution that Colon, Gebken and a small team worked on, benchmarked for 70% recognition of the different disabilities.

By identifying disabilities from root words and classifying them, the team's invention would save VA $20 million if it ran at 70% accuracy.

The team then pilot tested the solution, and the first model reached 70% accuracy, the expected outcome for the project as a whole. Not resting on its laurels, the team added more methods and protocols for analyzing language to obtain higher accuracy. Six months after starting the project in January 2019, the final solution reached its final test. The team's run-through during the last stage of development returned 92% accuracy, meaning that VA should save more than the $20 million leaders hoped for and veterans will have to spend less time waiting for the processing of benefits forms.
As his natural language processing program matures, Colon is also updating VA's veterans database and supporting the cybersecurity desk, trying to shield veterans from fraud.

Tips for Success

1. Forge partnerships within and outside your agency

VA partnered with the Presidential Innovation Fellows program to help generate fresh ideas and tackle one of the department's most pressing challenges: providing disability compensation to veterans.

2. Evaluate costly pain points

When selecting a project for digital transformation, consider addressing pain points that have a high impact on costs and customer services.

3. Survey existing solutions

Don't reinvent the wheel. Where possible, look for models of success that could be spread throughout the agency.

Facts and Figures

1.7 million is the number of forms VA receives each year from veterans applying for disability compensation and related benefits.

60% or more than 1 million of those forms are sent to the VA via mail.

100 days is the average time veterans must wait for their forms to be processed, but it may take far longer.