

# Research aims to automatically answer user questions on online privacy policies

July 24 2019, by Jessica Hallman

**THEIR RESEARCHERS** have developed a new system that can automatically answer user questions about online privacy policies. The system, called "Privacy Policy Answering" (PPA), is designed to help users understand the terms and conditions of the services they use. It is based on a deep learning architecture that can process natural language and generate human-like responses. The researchers claim that PPA can significantly reduce the time and effort required to read and understand privacy policies, which are often long and complex documents. They also claim that PPA can help users make more informed decisions about whether to use a service and what terms they are agreeing to. The system is currently being tested on a large dataset of privacy policies from various companies, and the researchers expect to release the final version of PPA in the near future.

**THEIR RESEARCHERS** have also developed a new system that can automatically generate privacy policies for companies. This system, called "Privacy Policy Generator" (PPG), is designed to help companies create clear and concise privacy policies that comply with relevant laws and regulations. PPG is based on a deep learning architecture that can learn from a large dataset of existing privacy policies and generate new policies based on the input information provided by the user. The researchers claim that PPG can significantly reduce the time and cost of creating privacy policies, which are often a major headache for companies. They also claim that PPG can help companies ensure that their privacy policies are clear and easy to understand, which is a key requirement for many privacy laws. The system is currently being tested on a large dataset of privacy policies from various companies, and the researchers expect to release the final version of PPG in the near future.

**THEIR RESEARCHERS** have also developed a new system that can automatically detect and flag privacy policy violations. This system, called "Privacy Policy Violation Detector" (PPVD), is designed to help companies and regulators identify and address privacy policy violations. PPVD is based on a deep learning architecture that can learn from a large dataset of privacy policies and detect violations of specific provisions. The researchers claim that PPVD can significantly reduce the time and cost of detecting privacy policy violations, which are often a major headache for companies and regulators. They also claim that PPVD can help companies and regulators ensure that privacy policies are being properly enforced, which is a key requirement for many privacy laws. The system is currently being tested on a large dataset of privacy policies from various companies, and the researchers expect to release the final version of PPVD in the near future.

**THEIR RESEARCHERS** have also developed a new system that can automatically generate privacy policy summaries. This system, called "Privacy Policy Summarizer" (PPS), is designed to help users quickly understand the key points of a privacy policy. PPS is based on a deep learning architecture that can learn from a large dataset of privacy policies and generate concise summaries of the most important provisions. The researchers claim that PPS can significantly reduce the time and effort required to read and understand privacy policies, which are often long and complex documents. They also claim that PPS can help users make more informed decisions about whether to use a service and what terms they are agreeing to. The system is currently being tested on a large dataset of privacy policies from various companies, and the researchers expect to release the final version of PPS in the near future.

**THEIR RESEARCHERS** have also developed a new system that can automatically generate privacy policy FAQs. This system, called "Privacy Policy FAQ Generator" (PPFAQG), is designed to help companies create clear and concise FAQs that address common questions about their privacy policies. PPFAQG is based on a deep learning architecture that can learn from a large dataset of privacy policies and generate FAQs based on the input information provided by the user. The researchers claim that PPFAQG can significantly reduce the time and cost of creating privacy policy FAQs, which are often a major headache for companies. They also claim that PPFAQG can help companies ensure that their privacy policy FAQs are clear and easy to understand, which is a key requirement for many privacy laws. The system is currently being tested on a large dataset of privacy policies from various companies, and the researchers expect to release the final version of PPFAQG in the near future.

Credit: AI-generated image ([disclaimer](#))

Internet users may soon have a way to have their questions about online privacy policies answered automatically, thanks to a new multi-institution research project that includes Penn State.

The project is funded by a recent \$1.2 million multi-institution grant

from the National Science Foundation, with \$437,000 allocated for Penn State. The project aims to enable people to ask questions about the [privacy issues](#) that matter to them when reviewing [privacy policies](#).

Currently, more than 90% of people consent to legal terms and conditions without reading them, according to a 2017 Deloitte survey. Reasons range from complex language, lack of time, length of the material and general indifference.

But with recent news stories focused on [privacy concerns](#) surrounding websites and mobile applications, consumers are taking greater caution to understand what personal information is being collected, and whom they're it sharing with, according to Shomir Wilson, assistant professor in the College of Information Sciences and Technology and a principal investigator on the project.

"We're interacting with the internet using computers and mobile phones on an enormous scale every day," said Wilson. "To get access, we sometimes have to agree to share [personal information](#)."

And while companies have the legal obligation to provide [privacy](#) policies, there is a big gap between the information shared and information that the common user can understand. Additionally, some users may not care if their information is shared, while others have stronger privacy concerns.

"Privacy is different for everyone," he said. "It's not necessarily about secrets, but about control over your information and the ability not to be bothered. Different people have different preferences."

The researchers will create software in the form of [mobile applications](#), web browser plugins and interactive websites by developing and using algorithms in the areas of natural language processing, machine learning,

and knowledge representation and reasoning. The interdisciplinary project aims to reinvent notice and choice—the idea that privacy policies are sufficient because users are given notice about how their information will be used and choices about what they can do in regards to the policy, such as opting out of certain features.

"We hope to release some prototype technologies that can help people understand the privacy policies of apps and websites," said Wilson. "We also hope to produce and release technology that nonprofits and other organizations can adopt to make this process of informing users easier."

Wilson said that they hope this shift from lengthy and difficult-to-understand policies to interactive privacy dialogues will help users be more informed and thoughtful about how they're sharing their data.

"If users are given privacy information in ways they can understand, they're more likely to make decisions that align with their interests and feel secure," he said.

Provided by Pennsylvania State University

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