The Australian government plans to test a nationwide Web filter that would require Internet service providers to block access to thousands of sites containing illegal content, officials say.

The proposed filter is part of an $82 million cybersafety plan begun in May with the goals of protecting children and stopping adults from downloading content that is illegal to possess in Australia, like child pornography or terrorist materials.

But the plan has prompted opposition from online advocacy groups and industry experts who say it would slow browsing speeds and do little to block undesirable content.

In November, the minister of communications, Stephen Conroy, invited Internet service providers and mobile phone operators to participate in a live trial of the program, which is set to begin this month. The department of communications will use the results to decide how to proceed with the plan.

The proposed system consists of two tiers. Under the first, all Australian service providers would be required to block access to about 10,000 Web sites on a list maintained by the Australian Communications and Media Authority, the federal monitor that oversees film classifications.

The second tier would require service providers to offer an optional filter that individuals could apply to block material deemed unsuitable for children.

The government says the list, which is not available to the public, includes only illegal content, mostly child pornography. But technology, left-wing and other advocacy groups, and technology businesses worry that the filter could be used to block sites focused on what some consider controversial topics, like gambling or euthanasia. “Even if the scheme is introduced with the best of intentions, there will be enormous political pressure on the government to expand the list,” said Colin Jacobs, the vice chairman of Electronic Frontiers Australia, a technology advocacy organization. “We worry that the scope of the list would expand at a very rapid rate.”

The proposal has set off a flurry of anxious chatter on social networking sites like Facebook, where thousands of users said they planned to take part in protests this weekend.

More than 85,000 users have also signed an online petition created by GetUp!, an advocacy group that calls the mandatory filter “a serious threat to our democratic values.”

Mark White, the chief operating officer at iiNet, one of the largest Australian Internet service providers, said the filter would have a limited effect because it would not monitor illegal activity on peer-to-peer or file-
sharing networks, where most child pornography and other illicit content is exchanged. The filter would also slow Internet browsing speeds for all, regardless of whether they were trying to view forbidden sites, he said. iiNet has agreed to take part in the trial.

This concern has been supported by the government’s own research. A July report by the communications authority found that lab tests of six unidentified Internet filtering programs showed mixed results. The best filter slowed browsing speeds by 2 percent; the other five made them 22 percent to 87 percent slower.

The study found that filtering programs were effective at blocking prohibited material around 92 percent of the time, but that about 3 percent of legitimate sites were mistakenly caught in the filters.

The country’s largest service provider, Telstra, has also expressed doubts about the plan. Its chief operating officer, Greg Winn, said recently that using filters for service providers to stop prohibited content was “like trying to boil the ocean.” As soon as the filter was applied, he said, someone would find a way to break it.

Some who support the idea of banning some sites, like Clive Hamilton, a senior ethics professor at the Australian National University, said that kind of reasoning was flawed, though.

“The laws that mandate upper speed limits do not stop people from speeding,” he said. “Does that mean that we should not have those laws?”

Meanwhile, Mr. Conroy, the communications minister, said he and the government were open to comments from Internet industry groups and the public.

In an e-mail message, Mr. Conroy said the government was taking note of the industry’s concerns about the technical limitations of the proposed filter. He added that the trial would provide “an invaluable opportunity for I.S.P.’s to inform the government’s approach.”