1 Introduction

The land of Cylabrador has gone many years without a medical privacy law, but at last its General Assembly has passed one. Because the debate was so contentious, for now only one clause has gone into effect:

Cylabrador Medical Privacy Law v. 1:
Doctors must have a patient’s consent to share their diagnosis information with anyone.

For each of the following messages, indicate whether or not they are in compliance with this privacy law.

1. Dear Dr. Moreau,
   
   My patient, Alice, asked me to refer you to her, as you are the leading expert on Spontaneous Combustion Syndrome, which she suffers from.

   Regards,
   Dr. Seuss

2. Hi Dr. Smith!
   
   I’m not a doctor, but I hear Alice has Spontaneous Combustion Syndrome. Have you considered treating it with leeches?

   Cheerio,
   Bob

3. Dear Dr. Pasteur,
   
   My patient, Carol, has been unconscious for the past month. I just ran a test yesterday and found out that she has Spontaneous Combustion Syndrome. Is this spreading?

   Regards,
   Dr. Strangelove
4. Dear Dr. Pasteur,

   A follow-up message on Carol—her social security number is 123-45-6789 and her credit card number is 0000 1111 2222 3333. I’ve been stealing money from her account the entire time she’s been my patient. It’s great!

Regards,
Dr. Strangelove
2 Exceptions

It wasn’t long before the doctors of Cylabrador ran into problems. Treating patients in a coma became an exercise in guesswork as doctors were unable to share any diagnostic information with their colleagues who might be better suited to treating the patients. They appealed to the Cylabradoran General Assembly, and at last an amendment to the law was passed.

Cylabrador Medical Privacy Law v. 2.0:
Doctors must have a patient’s consent to share their diagnosis information with anyone unless the patient is in a coma.

For each of the following messages, indicate whether or not they are in compliance with this privacy law.

1. Dear Dr. Pepper,
   My patient Daniel has been comatose since birth. I believe he’s come down with the dreaded Spontaneous Combustion Syndrome. Since the tragic combustion of Dr. Moreau, you are now the leading expert. How can I save Daniel?

   Regards,
   Dr. Who

2. Dear Dr. Smith,
   My patient Eve just fell asleep and geez, she’s always in here. I’ve been referring her to therapy for her Munchausen Syndrome. I’m going to prescribe a laxative every time she visits and see if that helps.

   Regards,
   Dr. Strangelove

3. Dear Dr. Strangelove,
   You seem to be the leading expert on unethical medical practices. I just clubbed one of my patients into a coma and I think I gave him a Concussion. Do you know who to bribe on the medical board to retain my license?

   Regards,
   Dr. Doolittle

   But CMPL v. 2.0 had issues of its own, as when the following message was deemed not in compliance:

4. Dear Dr. Pepper,
My patient Daniel awoke from his coma! Unfortunately, he’s never learned Cylabradoran. We’ve been trying to teach him basic vocabulary, and have discovered that he’s color-blind. Do you know of any developmental psychologists?

Regards,
Dr. Who

So a new exception was added:

Cylabrador Medical Privacy Law v. 2.1:
Doctors must have a patient’s consent to share their diagnosis information with anyone unless the patient is in a coma or unable to speak Cylabradoran.

Surely this would solve the problem of medical privacy once and for all?
3 Purpose

By Cylabrador Medical Privacy Law v. 2.140, the General Assembly got the notion that perhaps adding more exceptions was not the way of the future. Then one of them noticed a unifying thread in all the cases that had inspired them to add exceptions to the law: they were for the purpose of getting proper medical care for a patient. So came the new version:

Cylabrador Medical Privacy Law v. 3:
Doctors must have a patient’s consent to share their diagnosis information with anyone except for the purpose of medical care.

For each of the following messages, indicate whether or not they are in compliance with this privacy law.

1. Dear Cylabrador Times-Dispatch,

   I am writing to you to inform you that my patient, Gordon, who is in a coma, suffers from Embarrassing Smell Disorder. His family refused to meet my very reasonable blackmail demands, so I’d like you all to share his diagnosis with the world.

   Regards,
   Dr. Strangelove

2. Dear Dr. Pepper,

   My patient, Councilor Helen, has been diagnosed with Spontaneous Combustion Syndrome. I’m writing to you in the hopes that you’ll be able to recommend a treatment option to save her. Also, if you can, I expect her story would make excellent marketing material for your practice.

   Regards,
   Dr. Strange

3. Dear Ace Widget Co.,

   Your employee, Irma, asked me to write to you regarding her recent absences from work. I regret to inform you that she is experiencing a rare form of Alien Hand Disease, and has begun venturing up to the mothership for progressively longer periods. Until her transformation is complete, I expect she’ll be able to continue to work, and indeed may produce technologically advanced alien widgets.

   Regards,
   Dr. Seuss
4 Positive and Negative Norms

Frustrated with how long it had taken for Dr. Strangelove to finally fall afoul of Cylabrador’s privacy laws, the General Assembly decided that rather than have all messages be permitted unless they run afoul of CMPL, messages would be banned by default unless they were explicitly permitted. Dr. Strangelove immediately reported the following message as being in violation of CMPL v. 3 under the new default:

Dear Dr. Who,

How’s it going?

Regards,
Dr. Pasteur

Clearly, a new version of the law was required for the new system:

Cylabrador Medical Privacy Law v. 4.0:
(a) Doctors must have a patient’s consent to share their diagnosis information with anyone except for the purpose of medical care.
(b) Doctors may send messages not related to patients.

This first clause is what is known as a negative norm, meaning that its condition must be fulfilled for a message to be acceptable to sent. The second clause is a positive norm, meaning messages that fulfil its condition may be sent.

For a message to be in compliance with Cylabrador Medical Privacy Law, it must satisfy all negative norms and at least one positive norm. For each of the following messages, indicate whether or not they are in compliance with this privacy law.

1. Dear Dr. Who,

   Well, that was quite the scare. I thought I’d be hauled off to jail for violating CMPL! I’m so glad they changed the law in time.

   Regards,
Dr. Pasteur

2. Dear Dr. Pepper,

   My patient, Jack, asked me to contact you. He’s suffering from Spontaneous Combustion Syndrome, and you are the leading expert on that. Do you have any recommendations for treatment?

   Regards,
Dr. Strange
After the mass arrest of every Cylabradoran doctor for this unconscionable violation of patient privacy, the General Assembly frantically added a third clause, and granted amnesty to doctors who had been penalized for patient privacy violations.

Cylabrador Medical Privacy Law v. 4.1:
(a) Doctors must have a patient’s consent to share their diagnosis information with anyone except for the purpose of medical care.
(b) Doctors may send messages not related to patients.
(c) Doctors may send messages related to patient health care.

Are the following messages acceptable under this new version?

3. Dear Dr. Strangelove,

   My patient, Katherine, is very wealthy. You’re the leading expert on extracting money from patients, so I can refer her to you in return for a 10% finder’s fee.

   Regards,
   Dr. Pasteur

4. Dear Dr. Seuss,

   My patient, Louis, has Spontaneous Combustion Syndrome. I’m worried that when he succumbs to it, it will burn down my office. Can I send some personal documents to you for safekeeping?

   Regards,
   Dr. Pepper