

Character

Intelligence Agency

Score Double for Public Security Information

Score Double for Private Digital Information

X2
Public

X2
Private

Character

Hacker

Score Double for Public Security Information

Score Double for Private Digital Information

x2
Public

x2
Private

Character

Bank Manager

Score Double for Public Financial Information

Score Double for Private Security Information

x2
Public

x2
Private

Character

Advertiser

Score Double for Public Biography Information

Score Double for Private Financial Information

x2
Public

x2
Private

Character

Online Dater

Score Double for Public Social Information

Score Double for Private Health Information

X2
Public

X2
Private

Character

Health Service

Score Double for Public Health Information

Score Double for Private Biography Information

x2
Public

x2
Private

Character

Employer

Score Double for Public Biographical Information

Score Double for Private Security Information

x2
Public

x2
Private

Character

Community Reporter

Score Double for Public Digital Information

Score Double for Private Social Information

x2
Public

x2
Private

Character

Internet Shopper

Score Double for Public Digital Information

Score Double for Private Financial Information

X2
Public

X2
Private

Data Protection

Information must not be kept longer than necessary

Discard a card from your hand with Biographical information on it

Event

Health Leak

Health records found on unsecured website

Show all cards containing Health Information

Event

Health Opt-Out

More and more people are opting out of the NHS database...

No card with Health information can be played this turn

Event

Advertising cuts

Advertising supports a lot of services online. What if the budget is cut?

Discard a card from your hand with Social information on it

Event

E-Safety

Police officers and IT security professionals give lectures in schools

No card with Social information can be played this turn

Event

EU ruling

Article 8 of the European Convention on Human Rights includes privacy

Discard a card from your hand with Digital information on it

Event

ID theft campaign

A campaign is launched to warn people about the danger of identity fraud

No card with Biographical information can be played this turn

Event

Insider Threat

Do you trust everybody who works for that company?

Discard a card from your hand with Security information on it

Event

Lost Laptop

Another Government Laptop full of personal data left on a train...

Reveal all cards containing Security Information until the end of this turn

Event

Bank Hack

I'm sure banks take security very seriously

Show all cards containing Financial Information

Event

PETs

Privacy
Enhancing
Technologies
(not small animals)

No card with Digital information can be played this turn

Event

Passwords

People start to listen to advice about secure passwords

No card with Security information can be played this turn

Event

Record loss

We sent those records on to the specialist. Did they not get there?

Discard a card from your hand with Health information on it

Event

Credit Check

We'll need to do a credit check before we can progress your application.

Only cards with Financial Information can be played this turn

Event

CyberWar!

The next attack will be a digital Pearl Harbour. The next one...

Only cards with Security Information can be played this turn

Event

F.O.I

A wave of Freedom of Information requests makes more data public

Each player can play Two cards this turn

Event

Employee Relations

Your boss demands you hand over your social network password.

Reveal all cards containing Digital Information until the end of this turn

Event

Employee Error

We think somebody pressed the 'delete' key.

Each player must discard a card of their choice from their hand

Event

Health project

After many years of trouble, the NHS IT system is up and running! Mostly.

Only cards with Health Information can be played this turn

Event

Market Closure

To prevent 'market failure', sometimes its necessary to close the market

No Financial data can be traded this turn

Event

Identity Card Act

We need to know you are who you say you are...

Only cards with Biographical Information can be played this turn

Event

Gaming Hack

They lost my card details but more importantly... All my saved games.

Only cards with Digital Information can be played this turn

Event

Power Failure

A power failure at the data-storage centre risks losing vital information

Each player must discard a card of their choice from their hand

Event

Phishing

Scams on social networks can take advantage of your friendships

Reveal all cards containing Social Information until the end of this turn

Event

Open Data

The Open Data movement seeks to make public data public

Players may play Two cards this turn, IF they feature a matching Colour.

Event

Privacy Settings

Your social network changes its privacy settings without telling you (again).

Each player takes a card at random from the hand of the player to their Left.

Event

Privacy Settings

Your social network changes its privacy settings without telling you.

Each player takes a card at random from the hand of the player to their Right.

Event

Event

No cards are dealt this turn.

Superinjunction

Somebody has a court order preventing us telling you who has a court order.

Special Offer!!

Introduce a friend to get this great deal!

Only cards with Social Information can be played this turn

Event

Superinjunction

Somebody has a court order preventing us telling you who has a court order.

Players do not pick up any new Information cards this turn.

Event

Increased Surveillance

Are we sleepwalking into a surveillance society?

Each player must choose a card from their hand to pass to the player on their Right

Event

Event

Every Player must reveal their entire hand for the duration of this turn.

Transparent Society

What would it be like to live in a society with no privacy?

School Spying

Laptops with cameras, fingerprint scanners for registers, internet history...

Reveal all cards containing Biographical Information until the end of this turn

Event

Safe Harbour

EU law means you can't move data outside the EU except to a 'safe harbour'

No trading can take place this round - skip the trading phase in each player's turn

Event

Privacy by Design

Privacy designed into information systems stops information being shared by mistake

No Information cards can be played this turn. (you can play Trick cards or trade cards as normal).

Event

Event

Each player must choose a card from their hand to pass to the player on their Left

Transparency Agenda

The government says it wants to make more data it holds available to the public

Smoking Habit

"Its unhealthy, but I think everybody already knows about it, don't they?"



Debit Card number

"I've never actually bought anything online. Because I've only got a debit card and not a credit card. It's a big question mark over my head because of that."



Date of Birth

"The date of birth I gave to Facebook, isn't my real one."



Blog Post

"I'm prepared to interact with people I've never met before through comments on my blog..."



Bank Account

"Even though I do my banking online, I'm always paranoid that if there's a virus on my computer someone will access my information and steal all my money."



Current Location

"I use more private sites from home, because I feel a little more secure."



Bank Loan Details

"although it is convenient, I think it may be unsafe..."



Age

"Well there was a programme on television where they were showing these young children as young as ten and eleven getting onto sites that they shouldn't have been on."



DNA Fingerprint

"The UK has the largest police DNA database in the world"



Health Problems

"I did research health a lot on the internet, but I'm a bit wary of it. People could get it wrong."

Health

2

Health

2

Security

3

List of Online Friends

"I find it really unhelpful if somebody doesn't share their information. How do I know if I want to be their friend or not?"

Social

2

Digital

2

Biographical

2

Home Address

"but if somebody had your address, someone could come and break into your house."

Security

1

Security

3

Biographical

1

Family Health Details

"I don't talk about my family online, its not my right to make their lives public."

Social

2

Health

1

Biographical

3

Gender

"Male or Female?"

Biographical

3

Security

2

Health

1

Holiday Photos

"I do collect a few photos of me standing in front of things...not family snaps you know..."

Financial

2

Digital

3

Biographical

2

Employment history

"It will be quite worrying for me to go to a job interview, worrying that I've already been researched."

Financial

3

Security

2

Social

2

Favourite Brands

"What sort of things are you interested in? Why don't you tell us?"

Financial

3

Social

1

Financial

1

Just type anything...

"I put in a false address, not my real email."

Digital

1

Social

1

Digital

1

Your Social Network

"They can see my name, but they couldn't click into my profile and no pictures. They couldn't see who I was friends with."

Social

3

Security

2

Social

2

Social network password

"I have a password which I only use on the Internet, I'm still wary of the security things."

Digital

1

Biographical

1

Digital

1

Status Update

"Then the next day, the lads are all like 'you must have been drunk last night' and I asked why? 'because of what you said on Facebook'."

Social

1

Digital

1

Digital

1

Qualifications

"please upload your CV..."

Biographical

3

Digital

2

Security

2

NHS Medical Record

"The doctors keep everything on computer don't they? What's to stop anybody hacking in there?"

Health

3

Digital

3

Health

3

Web browser history

"I like looking at strange sites as well..."

Health

2

Digital

3

Security

2

Political Beliefs

"Excuse me madam, can I ask how you intend to vote?"

Social

2

Biographical

1

Security

1

Smart Phone bill

"The apps are great, but now I find out it records where I go."

Biographical

1

Digital

2

Digital

3

Sexual Orientation

"Interested in....?"

Biographical

2

Health

3

Security

1

Previous Address

"We'd forgotten to re-direct some of our post."

Security

3

Financial

1

Biographical

1

Favourite Music

"Keep up to date with your favourite bands!
Just fill in the following form."

Financial

1

Digital

1

Biographical

3

Fingerprint

"If you think about it, you leave them on everything
you touch."

Health

2

Biographical

3

Security

2

Made up Information

"You don't always have to answer every question
truthfully..."

Health

1

Security

1

Security

1

Your upcoming party

"...and then several hundred people turned up
to the poor girl's party, caused loads of damage."

Social

1

Health

1

Financial

3

Phone Number

"I have two mobiles. Now this one, that one's not
online, and not many people know it. This is just
a personal one for my family."

Biographical

1

Health

1

Financial

3

Shopping History

"I trust that shopping sites will not pass on my details
to anybody else."

Financial

2

Digital

3

Financial

2

Disability

"I didn't want to make a thing about it. But there
was that question on the job application."

Financial

3

Health

3

Social

1

Embarrassing Photo

"They can see my name, but they couldn't click into
my profile and no pictures. They couldn't see who I
was friends with."

Health

2

Digital

2

Social

3

Event

Discard a card from your hand with Financial information on it

Increased sales of paper shredders mean fewer bank statements found in rubbish

Shredder Sale

Event

Each player can draw their hand up to Six (6) cards at the end of this turn, rather than the normal Five (5)

The whistle-blowing website releases more secret government information.

WikiLeaks

Event

Each player can draw their hand up to Six (6) cards at the end of this turn, rather than the normal Five (5)

The whistle-blowing website releases more secret government information.

WikiLeaks

Character

Youth Worker

Score Double for Public Health Information

Score Double for Private Social Information

x2
Public

x2
Private

Character

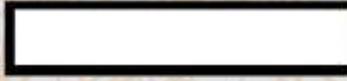
Social Network

Score Double for Public Social Information

Score Double for Private Biographical Information

x2
Public

x2
Private



Event

age, address, family, address, favourites, school, qualifications, pets, training, spending patterns, clothes size, food, bills, debts, co
PIN, password, salary, bank account #, security codes, mothers's name, encryption, support groups, allergies, biometr

Biography

Financial

illness, treatments, doctor's name, diet, alcohol intake, exercise, depression, therapy, support groups, allergies, biometr

Health

Security

email contacts, friends, social networks, political parties, blogs, IP parties, colleagues, web history, holiday plans, comments, password

Social

Digital

Travel Plans

" Oh, he's off on holiday is he? Lets get over there and rob his house."

Security 2

Health 3

Social 2

Relationship Status

" I don't put anything online about my relationships. I like to keep that private."

Biographical 3

Health 1

Social 3

Privacy

A game about Privacy, Personal Information, and sharing Online

Have you ever thought about the things that you share when you go online, the way that your words and actions might travel around the world?

Have you ever wondered what websites might want to do with the answers to the questions they ask? Have you ever wondered who else might be out there?

This is a game that allows you to do that. It allows you and your friends to make decisions about what to share (and who to share it with) and what to keep private.

The way to win is to keep the most valuable information to yourself, whilst trying to find out what others have. This will allow you to play the best cards in combinations that give you the most points. You'll have to make decisions about what sort of trades you need to make, and what deals are simply too good to be true. You'll want to think carefully about who you might be playing with, because they're not always who they seem.

You can play this game with 3 to 5 players. It should take about half an hour to play. You'll just need the cards, and maybe some paper and a pen. You'll need a bit of space to play in; a tabletop, or a bit of floor.

The game revolves around trading information, putting some in public and keeping some private. The six categories of information are:

- Social** – your social life, friends, activities (Purple)
- Digital** – what you do online, websites, blogs (Grey)
- Financial** – how you spend money, loans, accounts (Orange)
- Biographical** – about your past, and your identity (Green)
- Security** – how you stay safe and in control online (Red)
- Health** – about your health and wellbeing (Blue)

Cards: There are three decks of cards. The Event Deck (blue back), the Information Deck (brown back) and the Character Deck (Grey back). **The Event Deck** contains random **Event Cards** with random events that happen in the online world that players have to respond to. **The Information Deck** contains **Information Cards** and a few more **Privacy Tricks** that players can trigger. The **Character Deck** will determine what role you take on in this game.

Set-up

- Shuffle all decks.
- Deal 1 card from the Character Deck to each player - put the remaining cards back in the box. This is the Character they are playing in this game. They player should keep this to themselves.

- Deal 5 cards from the Information Deck to each player. This is their Private hand.
- Place the Information and Event decks in reach of all the players.

How to play the game:

1) One player turns over the top card of the Event deck and reads the text out. All players must follow the directions on this card. It may tell you to discard a card with a particular colour, tell you to reveal the contents of your hand to the other players, or some other event.

2) Each player takes it in turn (going clockwise) to do three actions in the following order.

- Play a single Information card from their hand into their Public Database. Or Play a Privacy Trick card.
- Propose a trade between themselves and another player.
- Draw cards from the Information Deck to bring their hand back up to 5 cards.

Playing a Card: To play a card, a player simply reads out the text, and puts it down on the table in front of them. It doesn't matter where you put the first card, but following cards have to be lined up with and touching an already played card. You need to create columns of the same colour/type of information, in order to score points (see 'Scoring' below). You have to play the cards the same way up (name on the top, numbers below), and they cannot overlap. Each player creates their own Database of cards separate from the others.

You can play a Privacy Trick card from your hand instead of your Information Card for the turn.

Trading: The player can either offer up a card as a potential trade (for example: "what would anybody give me for this Credit Card Number.") or ask for a specific type of card ("does anybody have a card with Security information on it?"). It is up to the players to negotiate over the trade. It is acceptable to trade more than one card in a deal. If the players cannot agree then no trade takes place.

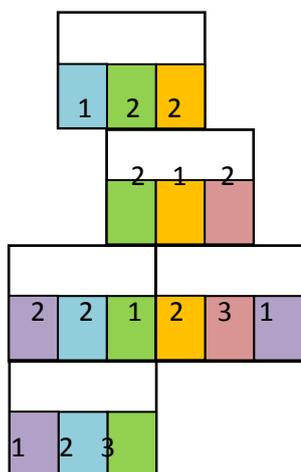
Draw: If you have fewer than Five cards in your hand, take cards from the top of the Information deck until you have Five cards. Event cards may alter this number.

3) Play then passes to the next player. When each player has taken a turn, then return to step 1) by drawing another event card.

Ending the Game: the game ends when the last card is drawn from the Information Deck. Each player reveals the contents of their hand, and also flips over their Player Card, showing it to the other players, and uses this to calculate their scores. The player with the highest score at this point is the winner.

Scoring: You can score points by playing cards in public (in matching columns in your database) or in private (by keeping them in your hand until the end of the game. Scoring depends heavily upon your character card.

Public: Information becomes valuable when you have more than one of the same category. You can score information cards by playing them on the table, lining them up in **columns** so that you get three or more cards with the same category lined up, as in the following diagram. This is your 'database'



Example: with the five cards played above, the player would score points for Orange (3 in a column), and Green (4 in a column). They would not score the Blue (3 in a column, but cards not adjacent), or the Purple (not in a column, not adjacent). They would not score the pink (only two)

$$2+2+1+3=6$$

$$2+1+2=5$$

$$= 11 \text{ points}$$

You double the score for any column that matches the 'public' colour on your character card.

Private: At the end of the game players also score points for any categories they hold in their hand that match the Private category colour on their Character card. Do not score points for other categories.

Add together the points from your public and private scores to find your total score.

Card type summaries

Event Cards: These cards are drawn each turn to represent the random events that can make managing your information online difficult. When an event card is drawn from the event deck, all players must follow the instructions written on it.

Character Cards: These cards represent the character you are playing in this game. Separate them out from the deck, shuffle and deal one face down to each player at the start of the game. These cards will tell you which types of information you get a bonus for collecting, and what this bonus is. Keep this hidden, unless you want to reveal it. Each character has

one type of information they score double by playing it in public and one type the score double by keeping it in their hand until the end of the game. They score all other types of information normally. The Character Cards include:

Hacker – Score double for public Security and private Digital information.

Health Service – Score double for public Health and private Biography information.

Bank Manager – Score double for public Financial and private Security information.

Advertiser – Score double for public Biography and private Financial information.

Online Dater – Score double for public Social and private Health information.

Community Reporter – Score double for public Digital and private Social information.

Employer - Score double for public Biographical and private Security information.

Youth Worker - Score double for public Health and private Social information.

Internet Shopper - Score double for public Digital and private Financial information.

Intelligence Agency - Score double for public Security and private Digital information.

Social Network – Score double for public Social and private Biographical information.

Information Cards: These are the core of the game. They each have a name, a picture, three coloured ratings, and a quote.¹ These are the cards you'll trade and play to score points.

The three ratings are important. The numbers (1,2 or 3) show how valuable the card is, and how many points you score from playing it. The colours represent categories of personal information which you'll need to match up (see 'Scoring' below).

Privacy Tricks There are a few cards within the Information Deck that allow players to manipulate the online information world to their advantage. These can be played instead of an information card on a player's turn. Follow the instructions on the face of these cards.

Acknowledgements

Privacy was created by Dr David Barnard-Wills (d.barnardwills@cranfield.ac.uk) as part of the Visualisation and Other Methods of Expression project (VOME). The VOME project is funded by the Engineering and Physical Sciences Research Council, the Economic and Social Research Council and the Technology Strategy Board.

You can find out more about the VOME project at www.vome.org.uk. An academic paper is also available which sets out the thinking behind the game design. We would really like to hear about your experiences playing this game.

Thanks to Christian Bonnici, Dani Bogdanovic, Kovila Coopamootoo, Michael Dowd, Elahe Kani-Zabihi, Margaret Ford, Eileen Wattam, Dave Birch and James Sellwood for their help with putting the game together.

¹ These quotes come from real people the VOME project spoke to whilst making this game. Do you agree with any of them?

Printing and Using Privacy: The Card Game

This file contains all the resources to print your own copy of the Privacy card game, as well as some guidelines for making use of the game.

Printing:

You'll also need a colour printer. We recommend using a good quality card stock that works with your printer.

I'd recommend printing pages 5 to 14 first. Then you need to make sure they get the correct backs. You're making three separate decks of cards.

For most printers, if you just re-insert the paper the other way around, and keep the settings the same, then the cards should line up with their backs, ready to print out. Maybe practice with cheaper paper and the printer's 'draft' setting first.

- Print page 4 on the reverse of page 5 (this will make the grey Character Deck)
- Print page 3 on the reverse of pages 6, 7, 8 and 9. (this makes the blue Event Deck)
- Print page 2 on the reverse of pages 10, 11, 12, 13 (this makes the brown Information Deck).
- Print page 1 on the reverse of page 14 (this contains some odd cards).

Print out as many copies of the rules pages as you have players.

Using the game

The game is designed to fit into the average classroom session length and can be played –as is. However we can also suggest a couple of methods

The idea behind the game is that we've built a model of how privacy and personal information work online into a card game those players can then explore through play. The game exposes players to decisions about what information to make public, keep private or trade with others. The argument built into the game is that information about people is valuable, that there are a lot of different organisations and people online with an interest in personal information, and that there are no objectively correct decisions about privacy and that random events can upset even carefully chosen privacy decisions.

Discussion – the information cards can be used to stimulate discussion around privacy topics outside of the game. One activity might be to get students to sort cards into sets they would share and sets they would keep private, and discuss this with others. Then change the identity of person who they are sharing with, and ask how this might change their choices. The quotes on the cards might be good ways to stimulate discussion – do students agree or disagree with these? Does it sound like something they might say, or have heard somebody say?

Playing the game should be either followed or preceded by discussions about online privacy or e-safety. This will help to maximise the meaning of the experience and identify particular concerns that people have.

Stacking the Deck – the activity leader can select particular event cards that they think their learners will find engaging or relevant, or that they want to encourage discussion on, and make sure that these are close to the top of the event deck at the start of the game. Gaming Hack, School Spying, and E-Safety might be particularly relevant to children.

Structured Play – this method might work well with a larger group. In this case, the group leader controls a single event deck for the entire class, who play in smaller groups. This gives the leader control over pacing, and allows the effects or implications of different events to be given more focus. This combines well with stacking the deck. It may not matter if the introduction of events falls outside the game sequence, giving a somewhat *musical-chairs* feel to the timing of the game as players wonder when an event will happen. You might want to compare scores across the entire group at the end.

Reading the Cards: Although it is not necessary by the rules of the game, you might want to insist that players read out the names and quotes of the cards as they play them.

Free Trading – a more dynamic variant of the game involves removing the specific trading phase from each players turn and opening it up. Any player can then propose a trade at any point in the game. More competitive players seem to enjoy this version, although it does become slightly more chaotic.

Privacy Tricks – the Misinformation card allows a player to trick another player during a trade. It is making the point that not all deals on the internet are quite what they seem. However, if you think this might cause problems with your players, feel free to remove these cards before play.

Resources – with some players the game might introduce new concepts. Childnet has a useful glossary (alongside many other resources in this area):
<http://www.childnet.com/kia/traineteachers/glossary.aspx>

Feedback

We'd really value hearing about your experiences using this game, and things we might do to make it more useful.

Email d.barnardwills@cranfield.ac.uk with any comments.

There is also an ongoing online survey about the game at <http://www.surveymonkey.com/SPRQRF2>



Licensed under Creative Commons Licence Attribution-NonCommercial-NoDerivs (CC BY-NC-ND) by Royal Holloway, University of London on the behalf of the VOME project partners.