Privacy en Beveiliging
Exam

Frances Brazier Martijn Warnier

Instructions: Questions should be answered in Dutch
or English. Each question is worth at most 10 points.
The final grade for the course will be the sum of the
points for the exam (max 70) plus the sum of your three
hand-in assignments (max 30) divided by 10 rounded
up/down to the nearest half point. A final grade of 5.5
will be rounded up to a 6. Which is enough to pass
the course. You have 2 hours to complete this exam.
Please read all questions carefully before starting. This
is a **closed book** exam. The only attributes you are
allowed to use are **pen and paper**.

1. (a) Society has changed significantly over the past 20-30 years. Social
        networking is common. What is social networking? How quickly has
        it developed?   (*3 points*)

    (b) Discuss the privacy implications of social networking. Discuss also
        the privacy implications of at least two other new developments/ap-
        plications that influence today's society.   (*4 points*)

    (c) Name three strictly technological developments that influence in-
        tegrity of the underlying systems.   (*3 points*)

2. (a) What are the main differences between the American 'Privacy Prin-
        cipals' and the European Data Protection Directive? Name at least
        two such differences.   (*4 points*)

    (b) List four Dutch government measures that invade the privacy of
        Dutch citizens.   (*4 points*)

    (c) Name two organizations in the Netherlands that protect consumers'
        interests against such privacy invading measures.   (*2 points*)

3. (a) Airports such as Schiphol allow some passengers to register for a vol-
        untary authentication mechanism using iris scans. Registered pas-
        sengers can use this to circumvent queues at security checkpoints.

    i. What do you call the use of iris scans to identify and authenticate people? *(2 points)*

    ii. List two privacy/security advantages and two disadvantages of this scheme. *(4 points)*

  (b) What is the difference between an 'opt-in' and an 'opt-out' policy. *(2 points)*

  (c) From a privacy point of view, which is more preferable, opt-in or opt-out? Explain your answer. *(2 points)*

4. (a) Briefly define 'identity theft'. *(2 points)*

  (b) Describe two techniques criminals can use to gather the information they need to steal an identity. *(4 points)*

  (c) Describe two ways a person can protect his/hers identity. *(2 points)*

  (d) Describe two ways a business can protect its customers from identity theft. *(2 points)*

5. (a) What is 'filtering software' (such as Net Nanny)? *(1 points)*

  (b) How does filtering software work? *(4 points)*

  (c) Is there a difference between filtering software, as used by companies and by parents on their own computers, and filtering software such as 'the great firewall of China' that blocks unwanted sites for Chinese citizens? Explain your answer. *(3 points)*

  (d) Is filtering software effective? Explain your answer and give one example of effective and one example of ineffective use of such software. *(2 points)*

6. (a) True anonymity on the Internet is difficult, but not impossible. Describe two different ways how you could anonymously surf the net. *(2 points)*

  (b) What is the most significant problem associated with anonymously surfing the web? *(2 points)*

  (c) In your opinion, should there be (international) laws that ban the use of software that allow anonymous communication via the web? Motivate your answer. *(2 points)*

  (d) The European Union has passed legislation that forces ISPs to collect and store all point-to-point Internet connections. Does this law make it impossible to still communicate anonymously within Europe via the Internet? Explain your answer. *(4 points)*

7. (a) Give short definitions for the following concepts:

    i. Confidentiality

    ii. Integrity

    iii. Availability

    iv. Authentication *(4 points)*

  (b) Describe the difference between a passive and an active attack in computer security. *(4 points)*

  (c) Give the name of a symmetric and an asymmetric encryption algorithm. *(2 points)*