Coláiste na Tríonóide, Baile Átha Cliath
Trinity College Dublin
Ollscoil Átha Cliath | The University of Dublin

Faculty of Engineering, Mathematics and Science

School of Computer Science & Statistics

SAMPLE PAPER

What is the Internet Doing to Me?
TEU00311

XX August 2022   **SOMEPLACE**   *09.30 – 11.30*

Dr. Stephen Farrell

Instructions to Candidates:

Attempt **two** questions. All questions carry equal marks (50 each).

You may not start this examination until you are instructed to do so by the invigilator.

Materials Permitted for this examination:

N/A

Question 1

The GDPR provides rights to people that are intended to be practically enforceable, even when a data controller or processor isn't acting in accordance with the regulations.

On the basis of the module lecture content and your experience with submitting a GDPR request, write an essay about whether and to what extent you agree or disagree with the above, (and why), with a focus on the ***practicality*** of the protections afforded by the current operation of GDPR.

[50]

Question 2

Devices such as smartphones or laptops, (including their operating systems and installed applications), can "overshare" user data and usage data with the operators of related services.

(a) Describe three different kinds "oversharing" abuses that could happen, including how applications and their interactions with the Internet contribute to the problem.

[15]

(b) Describe in as much detail as you can the ways in the companies involved with one such device or application could abuse the data "shared" by the device.

[25]

(c) If you were a user of the device or application described in part (b), what actions would you take in order to reduce the potential abuses involved? For each action identified, say if you would consider taking that action or not, and why.

[10]

Question 3

Most web sites make use of cookies both for reasonable application purposes but also for tracking users. Similarly, most web sites may have links to partners for advertising or analytics that result in users being tracked. Many web sites make use of so-called "dark patterns" in order to encourage users to reveal more about themselves to the site operator and their partners, or to make it difficult for users to unsubscribe or opt-out of services. Some web sites also apply artificial intelligence (AI) techniques in order to e.g. attempt to display what is considered "more relevant" content to users.

In answering below, the more concrete, specific and technically detailed your description the better, e.g. describing specific web sites you use is better than providing an abstract description.

(a) Describe three ways in which web sites can avoid making use of invasive tracking technologies and how those might affect usability and hence end up being more or less widely deployed.

[10]

(b) Describe some of the "dark patterns" mentioned above. Describe two ways in which user actions might counter such bad practices and in each case say whether or not (and why) you consider such actions might or might not be effective?

[15]

(c) What harms can result from the use of such AI technologies as described above and what factors affect whether those uses are ethically sound or unsound?

[15]

(d) What positive actions can a user take to encourage use of less intrusive web technologies? In each case, say if you have or would or would not take that action and justify your answer.

[10]