The possession or use of any communications device is strictly prohibited when taking this examination. If you have or use any communications device, no matter how briefly, your examination will be invalidated and no score will be calculated for you.

A separate answer sheet has been provided for you. Follow the instructions for completing the student information on your answer sheet. You must also fill in the heading on each page of your essay booklet that has a space for it, and write your name at the top of each sheet of scrap paper.

The examination has three parts. For Part 1, you are to read the texts and answer all 24 multiple-choice questions. For Part 2, you are to read the texts and write one source-based argument. For Part 3, you are to read the text and write a text-analysis response. The source-based argument and text-analysis response should be written in pen. Keep in mind that the language and perspectives in a text may reflect the historical and/or cultural context of the time or place in which it was written.

When you have completed the examination, you must sign the statement printed at the bottom of the front of the answer sheet, indicating that you had no unlawful knowledge of the questions or answers prior to the examination and that you have neither given nor received assistance in answering any of the questions during the examination. Your answer sheet cannot be accepted if you fail to sign this declaration.
Part 1

**Directions** (1–24): Closely read each of the three passages below. After each passage, there are several multiple-choice questions. Select the best suggested answer to each question and record your answer on the separate answer sheet provided for you. You may use the margins to take notes as you read.

**Reading Comprehension Passage A**

It was upon the 4th of March, as I have good reason to remember, that I rose somewhat earlier than usual, and found that Sherlock Holmes had not yet finished his breakfast. The landlady had become so accustomed to my late habits that my place had not been laid nor my coffee prepared. With the unreasonable petulance1 of mankind I rang the bell and gave a curt intimation that I was ready. Then I picked up a magazine from the table and attempted to while away the time with it, while my companion munched silently at his toast. One of the articles had a pencil-mark at the heading, and I naturally began to run my eye through it. …

“From a drop of water,” said the writer, “a logician could infer the possibility of an Atlantic or a Niagara without having seen or heard of one or the other. So all life is a great chain, the nature of which is known whenever we are shown a single link of it. Like all other arts, the Science of Deduction and Analysis is one which can only be acquired by long and patient study, nor is life long enough to allow any mortal to attain the highest possible perfection in it. Before turning to those moral and mental aspects of the matter which present the greatest difficulties, let the inquirer begin by mastering more elementary problems. Let him, on meeting a fellow-mortal, learn at a glance to distinguish the history of the man and the trade or profession to which he belongs. Puerile2 as such an exercise may seem, it sharpens the faculties of observation and teaches one where to look and what to look for. By a man’s fingernails, by his coat-sleeve, by his boot, by his trouser-knees, by the callosities of his forefinger and thumb, by his expression, by his shirt-cuffs—by each of these things a man’s calling is plainly revealed. That all united should fail to enlighten the competent inquirer in any case is almost inconceivable.”

“What ineffable twaddle!” I cried, slapping the magazine down on the table; “I never read such rubbish in my life.”

“What is it?” asked Sherlock Holmes.

“Why, this article,” I said, pointing at it with my egg-spoon as I sat down to my breakfast. “I see that you have read it, since you have marked it. I don’t deny that it is smartly written. It irritates me, though. It is evidently the theory of some arm-chair lounger who evolves all these neat little paradoxes in the seclusion of his own study. It is not practical. I should like to see him clapped down in a third-class carriage on the Underground and asked to give the trades of all his fellow-travellers. I would lay a thousand to one against him.”

“You would lose your money,” Sherlock Holmes remarked, calmly. “As for the article, I wrote it myself.”

“You?”

“Yes, I have a turn both for observation and for deduction. The theories which I have expressed there, and which appear to you to be so chimerical, are really extremely practical—so practical that I depend upon them for my bread-and-cheese.”

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1petulance — a quality or state of being rude
2puerile — childish
“And how?” I asked, involuntarily.

“Well, I have a trade of my own. I suppose I am the only one in the world. I’m a consulting detective, if you can understand what that is. Here in London we have lots of government detectives and lots of private ones. When these fellows are at fault they come to me, and I manage to put them on the right scent. They lay all the evidence before me, and I am generally able, by the help of my knowledge of the history of crime, to set them straight. There is a strong family resemblance about misdeeds, and if you have all the details of a thousand at your finger-ends, it is odd if you can’t unravel the thousand and first. Lestrade is a well-known detective. He got himself into a fog recently over a forgery case, and that was what brought him here.”

“And these other people?”

“They are mostly sent out by private inquiry agencies. They are all people who are in trouble about something, and want a little enlightening. I listen to their story, they listen to my comments, and then I pocket my fee.”

“But do you mean to say,” I said, “that without leaving your room you can unravel some knot which other men can make nothing of, although they have seen every detail for themselves?”

“Quite so. I have a kind of intuition that way. Now and again a case turns up which is a little more complex. Then I have to bustle about and see things with my own eyes. You see, I have a lot of special knowledge which I apply to the problem, and which facilitates matters wonderfully. Those rules of deduction laid down in that article which aroused your scorn are invaluable to me in practical work. Observation with me is second nature. You appeared to be surprised when I told you, on our first meeting, that you had come from Afghanistan.”

“You were told, no doubt.”

“Nothing of the sort. I knew you came from Afghanistan. From long habit the train of thought ran so swiftly through my mind that I arrived at the conclusion without being conscious of intermediate steps. There were such steps, however. The train of reasoning ran: ‘Here is a gentleman of a medical type, but with the air of a military man. Clearly an army doctor, then. He has just come from the tropics, for his face is dark, and that is not the natural tint of his skin, for his wrists are fair. He has undergone hardship and sickness, as his haggard face says clearly. His left arm has been injured. He holds it in a stiff and unnatural manner. Where in the tropics could an English army doctor have seen much hardship and got his arm wounded? Clearly in Afghanistan.’ The whole train of thought did not occupy a second. I then remarked that you came from Afghanistan, and you were astonished.” …

I was still annoyed at his bumptious style of conversation. I thought it best to change the topic.

“I wonder what that fellow is looking for?” I asked, pointing to a stalwart, plainly dressed individual who was walking slowly down the other side of the street, looking anxiously at the numbers. He had a large, blue envelope in his hand, and was evidently the bearer of a message.

“You mean the retired sergeant of marines,” said Sherlock Holmes.

“Brag and bounce!” thought I to myself. “He knows that I cannot verify his guess.”

The thought had hardly passed through my mind when the man whom we were watching caught sight of the number on our door, and ran rapidly across the roadway. We heard a loud knock, a deep voice below, and heavy steps ascending the stair.

“For Mr. Sherlock Holmes,” he said, stepping into the room and handing my friend the letter.
Here was an opportunity of taking the conceit out of him. He little thought of this when he made that random shot. “May I ask, my lad,” I said, blandly, “what your trade may be?”

“Commissionnaire, sir,” he said, gruffly. “Uniform away for repairs.”

“And you were?” I asked, with a slightly malicious glance at my companion.

“A sergeant, sir, Royal Marine Light Infantry, sir. No answer? Right, sir.” He clicked his heels together, raised his hand in a salute, and was gone.

—A. Conan Doyle
excerpted from *A Study in Scarlet*, 1904
Harper & Brothers Publishers

1 The phrase “with the unreasonable petulance of mankind” (line 4) emphasizes the narrator’s (1) frustration with himself for missing sleep (2) irritation about not finding his breakfast ready (3) concern regarding the pencil-mark on the newspaper (4) impatience with Sherlock Holmes’s silence

2 How do the words “logician” (line 9), “deduction” (lines 12, 36, and 59), and “analysis” (line 12) advance the author’s purpose?

(1) by indicating the relationship between science and art (2) by suggesting the reasons why private inquiry agencies seek outside help (3) by highlighting the complexity of the crimes encountered by Sherlock Holmes (4) by emphasizing the systematic nature of Sherlock Holmes’s approach to solving crimes

3 What is the effect of withholding the identity of Sherlock Holmes as the author of the article (lines 9 through 34)?

(1) It creates a somber mood. (2) It foreshadows an unwelcome turn of events. (3) It allows the reader to learn the narrator’s true feelings. (4) It leads the reader to misunderstand who the writer is.

4 In this passage, the conversation between Holmes and the narrator (lines 23 through 38) serves to

(1) reinforce the narrator’s appreciation for deduction (2) establish a friendship between the narrator and Holmes (3) reveal how Holmes makes his living (4) expose some of Holmes’s misdeeds

5 As used in line 37, the word “chimerical” most nearly means

(1) unfair (2) unrealistic (3) aggravating (4) contradictory

6 Which analysis is best supported by the details in lines 43 through 55 of the text?

(1) Private detectives base their analyses on an understanding of human nature. (2) Sherlock Holmes’s association with other well-known detectives improves his crime-solving abilities. (3) Government detectives are mostly ineffective at solving complicated crimes. (4) Sherlock Holmes’s intuition relies on his ability to detect similarities among various crimes.
7 Which quotation best reflects a central theme in the text?
(1) “So all life is a great chain, the nature of which is known whenever we are shown a single link of it” (lines 10 and 11)
(2) “What ineffable twaddle ... I never read such rubbish in my life” (lines 23 and 24)
(3) “They are all people who are in trouble about something, and want a little enlightening” (lines 50 and 51)
(4) “Now and again a case turns up which is a little more complex” (lines 56 and 57)

8 The narrator views the arrival of the messenger as “an opportunity of taking the conceit out of him” (line 87) because the narrator wishes to
(1) challenge Holmes’s theories of deduction
(2) stress the importance of self-confidence
(3) reveal Holmes’s true intentions
(4) practice his own deductive abilities

9 The author’s description of the conversation between the narrator and the retired sergeant in lines 88 through 92 serves mostly to
(1) develop a character
(2) create a flashback
(3) establish a comparison
(4) resolve a conflict

10 The conversation with the retired sergeant (lines 89 through 91) leaves the narrator with a sense of
(1) astonishment
(2) confusion
(3) pleasure
(4) distrust
Give Us Our Peace

Give us a peace equal to the war
Or else our souls will be unsatisfied,
And we will wonder what we have fought for
And why the many died.

Give us a peace accepting every challenge—
The challenge of the poor, the black, of all denied,
The challenge of the vast colonial world
That long has had so little justice by its side.

Give us a peace that dares us to be wise.
Give us a peace that dares us to be strong.
Give us a peace that dares us still uphold
Throughout the peace our battle against wrong.

Give us a peace that is not cheaply used,
A peace that is no clever scheme,
A people's peace for which men can enthruse,
A peace that brings reality to our dream.

Give us a peace that will produce great schools—
As the war produced great armament,
A peace that will wipe out our slums—
As war wiped out our foes on evil bent.

Give us a peace that will enlist
A mighty army serving human kind,
Not just an army geared to kill,
But trained to help the living mind—

An army trained to shape our common good
And bring about a world of brotherhood.

—Langston Hughes
from *The Chicago Defender*, August 25, 1945
11 The prevailing tone of the poem is
   (1) demanding (3) celebratory
   (2) angry (4) proud

12 What is most likely not a purpose of the repetition of the phrase “Give us a peace” throughout the poem?
   (1) to provide a unified structure
   (2) to emphasize a central idea
   (3) to solicit the people’s loyalty
   (4) to introduce the poet’s requests

13 The military references throughout the poem serve to
   (1) recall the heroic cause of war
   (2) stress the destructive nature of war
   (3) rally the people for a new form of war
   (4) warn the people of an impending war

14 The poet’s purpose in the poem can best be described as
   (1) a condemnation of war
   (2) an appeal for justice
   (3) an argument for colonial values
   (4) a criticism of education
Reading Comprehension Passage C

Science is a way of thinking much more than it is a body of knowledge. Its goal is to find out how the world works, to seek what regularities there may be, to penetrate to the connections of things—from subnuclear particles, which may be the constituents of all matter, to living organisms, the human social community, and thence to the cosmos as a whole. Our intuition is by no means an infallible guide. Our perceptions may be distorted by training and prejudice or merely because of the limitations of our sense organs, which, of course, perceive directly but a small fraction of the phenomena of the world. Even so straightforward a question as whether in the absence of friction a pound of lead falls faster than a gram of fluff was answered incorrectly by Aristotle and almost everyone else before the time of Galileo. Science is based on experiment, on a willingness to challenge old dogma, on an openness to see the universe as it really is. Accordingly, science sometimes requires courage—at the very least the courage to question the conventional wisdom.

Beyond this the main trick of science is to really think of something: the shape of clouds and their occasional sharp bottom edges at the same altitude everywhere in the sky; the formation of a dewdrop on a leaf; the origin of a name or a word—Shakespeare, say, or "philanthropic"; the reason for human social customs—the incest taboo, for example; how it is that a lens in sunlight can make paper burn; how a "walking stick" got to look so much like a twig; why the Moon seems to follow us as we walk; what prevents us from digging a hole down to the center of the Earth; what the definition is of "down" on a spherical Earth; how it is possible for the body to convert yesterday's lunch into today's muscle and sinew; or how far is up—does the universe go on forever, or if it does not, is there any meaning to the question of what lies on the other side? Some of these questions are pretty easy. Others, especially the last, are mysteries to which no one even today knows the answer. They are natural questions to ask. Every culture has posed such questions in one way or another. Almost always the proposed answers are in the nature of "Just So Stories," attempted explanations divorced from experiment, or even from careful comparative observations.

But the scientific cast of mind examines the world critically as if many alternative worlds might exist, as if other things might be here which are not. Then we are forced to ask why what we see is present and not something else. Why are the Sun and the Moon and the planets spheres? Why not pyramids, or cubes, or dodecahedra? Why not irregular, jumbly shapes? Why so symmetrical, worlds? If you spend any time spinning hypotheses, checking to see whether they make sense, whether they conform to what else we know, thinking of tests you can pose to substantiate or deflate your hypotheses, you will find yourself doing science. And as you come to practice this habit of thought more and more you will get better and better at it. To penetrate into the heart of the thing—even a little thing, a blade of grass, as Walt Whitman said—is to experience a kind of exhilaration that, it may be, only human beings of all the beings on this planet can feel. We are an intelligent species and the use of our intelligence quite properly gives us pleasure. In this respect the brain is like a muscle. When we think well, we feel good. Understanding is a kind of ecstasy. …

Let us approach a much more modest question: not whether we can know the universe or the Milky Way Galaxy or a star or a world. Can we know, ultimately and in detail, a grain of salt? Consider one microgram of table salt, a speck just barely large enough for someone with keen eyesight to make out without a microscope. In that grain of salt there are about $10^{16}$ sodium and chlorine atoms. This is a 1 followed by 16 zeros, 10 million billion atoms. If we wish to know a grain of salt, we must know at least the three-dimensional positions of each of these atoms. (In fact, there is much more to be known—for example, the nature of the forces between the atoms—but we are making only a modest calculation.) Now, is this number more or less than the number of things which the brain can know?
How much can the brain know? There are perhaps $10^{11}$ neurons in the brain, the circuit elements and switches that are responsible in their electrical and chemical activity for the functioning of our minds. A typical brain neuron has perhaps a thousand little wires, called dendrites, which connect it with its fellows. If, as seems likely, every bit of information in the brain corresponds to one of these connections, the total number of things knowable by the brain is no more than $10^{14}$, one hundred trillion. But this number is only one percent of the number of atoms in our speck of salt.

So in this sense the universe is intractable, astonishingly immune to any human attempt at full knowledge. We cannot on this level understand a grain of salt, much less the universe.

But let us look a little more deeply at our microgram of salt. Salt happens to be a crystal in which, except for defects in the structure of the crystal lattice, the position of every sodium and chlorine atom is predetermined. If we could shrink ourselves into this crystalline world, we would see rank upon rank of atoms in an ordered array, a regularly alternating structure—sodium, chlorine, sodium, chlorine specifying the sheet of atoms we are standing on and all the sheets above us and below us. An absolutely pure crystal of salt could have the position of every atom specified by something like 10 bits of information. This would not strain the information-carrying capacity of the brain.

If the universe had natural laws that governed its behavior to the same degree of regularity that determines a crystal of salt, then, of course, the universe would be knowable. Even if there were many such laws, each of considerable complexity, human beings might have the capability to understand them all. Even if such knowledge exceeded the information-carrying capacity of the brain, we might store the additional information outside our bodies—in books, for example, or in computer memories—and still, in some sense, know the universe. …

—Carl Sagan
excerpted from *Broca’s Brain*, 1979
Random House

1 intractable — stubborn

2 Chlorine is a deadly poison gas employed on European battlefields in World War I. Sodium is a corrosive metal which burns upon contact with water. Together they make a placid and unpoisonous material, table salt. Why each of these substances has the properties it does is a subject called chemistry, which requires more than 10 bits of information to understand.
15 The central idea of the first paragraph focuses on the
(1) nature of scientific investigation
(2) unknowable nature of the universe
(3) growth of our understanding over time
(4) benefits of formal education

16 Which phrase from the text clarifies the meaning of “dogma” as used in line 11?
(1) “constituents of all matter” (lines 3 and 4)
(2) “infallible guide” (line 5)
(3) “phenomena of the world” (line 7)
(4) “conventional wisdom” (line 12)

17 Which statement from the text best summarizes the central idea of paragraph 2?
(1) “Its goal is to find out how the world works, to seek what regularities there may be, to penetrate to the connections of things” (lines 1 through 3)
(2) “But the scientific cast of mind examines the world critically as if many alternative worlds might exist, as if other things might be here which are not” (lines 27 and 28)
(3) “We are an intelligent species and the use of our intelligence quite properly gives us pleasure” (lines 37 and 38)
(4) “Even if there were many such laws, each of considerable complexity, human beings might have the capability to understand them all” (lines 69 and 70)

18 According to the text, the “main trick” (line 13) of science is to
(1) follow one’s intuition
(2) observe and develop questions
(3) experiment and create laws
(4) accept one’s limitations

19 The examples presented in lines 27 through 31 help the reader understand
(1) how scientific inquiry differs from ordinary questioning
(2) why multiple worlds could potentially exist
(3) how cultural stories influence scientific observation
(4) why popular explanations rarely rely on experimentation

20 Which statement best summarizes the central claim made in lines 27 through 39?
(1) Science is based on human criticism of the world.
(2) Science is based on the accuracy of human perceptions.
(3) Humans have a capacity to experience joy through their intelligence.
(4) Humans consider themselves superior to all other species on the planet.

21 The purpose of the figurative language in lines 38 and 39 is to
(1) question the function of the human brain
(2) contrast the human brain with the brains of other beings
(3) indicate the shape and composition of one’s brain
(4) illustrate the effect of using one’s brain

22 The description of salt in lines 41 through 47 emphasizes the idea of
(1) interconnectedness
(2) complexity
(3) predictability
(4) uniqueness

23 What effect is created by the use of irony in line 47 and lines 53 through 55?
(1) humor
(2) doubt
(3) scorn
(4) awe

24 With which statement would the author of this text most likely agree?
(1) Understanding the world is essential to our well being.
(2) The human brain has an unlimited capacity to store knowledge.
(3) Scientific inquiry should only focus on objective reality.
(4) Technology allows us to have complete knowledge of the universe.
Part 2

Argument

Directions: Closely read each of the four texts provided on pages 12 through 17 and write a source-based argument on the topic below. You may use the margins to take notes as you read and scrap paper to plan your response. Write your argument beginning on page 1 of your essay booklet.

Topic: Should companies be allowed to track consumers’ shopping or other preferences without their permission?

Your Task: Carefully read each of the four texts provided. Then, using evidence from at least three of the texts, write a well-developed argument regarding companies being allowed to track consumers’ shopping or other preferences without their permission. Clearly establish your claim, distinguish your claim from alternate or opposing claims, and use specific, relevant, and sufficient evidence from at least three of the texts to develop your argument. Do not simply summarize each text.

Guidelines:

Be sure to

• Establish your claim regarding companies being allowed to track consumers’ shopping or other preferences without their permission
• Distinguish your claim from alternate or opposing claims
• Use specific, relevant, and sufficient evidence from at least three of the texts to develop your argument
• Identify each source that you reference by text number and line number(s) or graphic (for example: Text 1, line 4 or Text 2, graphic)
• Organize your ideas in a cohesive and coherent manner
• Maintain a formal style of writing
• Follow the conventions of standard written English

Texts:

Text 1 – Cell Phone Carrier Marketing Techniques An Invasion of Privacy?
Text 2 – EyeSee You and the Internet of Things: Watching You While You Shop
Text 3 – Where Will Consumers Find Privacy Protection from RFIDs?: A Case for Federal Legislation
Text 4 – RFID Consumer Applications and Benefits
BOSTON (CBS) – Your cell phone may be spying on you.

Every time you download an app, search for a website, send a text, snap a QR code or drive by a store with your GPS on, you are being tracked by your cell phone company.

“They know you were playing Angry Birds. They know that you drove by Sears. They know you drove by Domino’s Pizza. They can take that and take a very unique algorithm that can focus on your behavior,” explained marketing expert Mark Johnson. “It’s very impactful.”

According to Johnson, your data trail is worth big money to the cell phone companies. Details about your habits, your age and gender are compiled and can be sold to third parties. The information is predominantly used as a marketing tool so advertisers can target you with products or services that you are more likely to use or want.

The idea does not sit well with smartphone user Harrine Freeman. “It does seem creepy that companies are collecting all this information about consumers,” she said.

Freeman is so uneasy; she turns off her GPS when she is not using it. She also clears her browser history.

“I think it is an invasion of privacy,” she said.

All of the major cell phone carriers admit to collecting information about its customers. Some in the industry argue it benefits consumers because they get ads that are relevant to them.

Cell phone companies do notify customers about the data they collect, but critics say the notices are often hard to understand and written in fine print.

Rainey Reitman of the Electronic Frontier Foundation doesn’t like the fact that those who don’t want to be tracked have to go out of their way to get the company to stop.

“This is something that consumers are automatically opted into,” Reitman said.

To find out how your cell phone company might be monitoring you, be sure to carefully read the privacy policy.

Also, make sure you read all of the updates your carrier might send you because this tracking technology keeps changing.

—Paula Ebben


1 algorithm — process or set of rules followed in calculations
EyeSee You and the Internet of Things: Watching You While You Shop

...Even the store mannequins have gotten in on the gig. According to the Washington Post, mannequins in some high-end boutiques are now being outfitted with cameras that utilize facial recognition technology. A small camera embedded in the eye of an otherwise normal looking mannequin allows storekeepers to keep track of the age, gender and race of all their customers. This information is then used to personally tailor the shopping experience to those coming in and out of their stores. As the Washington Post report notes, “a clothier introduced a children’s line after the dummy showed that kids made up more than half its mid-afternoon traffic... Another store found that a third of visitors using one of its doors after 4 p.m. were Asian, prompting it to place Chinese-speaking staff members by the entrance.”

At $5,072 a pop, these EyeSee mannequins come with a steep price tag, but for store-owners who want to know more—a lot more—about their customers, they’re the perfect tool, able to sit innocently at store entrances and windows, leaving shoppers oblivious to their hidden cameras. Italian mannequin maker Almax SpA, manufacturer of the EyeSee mannequins, is currently working on adding ears to the mannequins, allowing them to record people’s comments in order to further tailor the shopping experience. ...

It’s astounding the amount of information—from the trivial to the highly personal—about individual consumers being passed around from corporation to corporation, all in an effort to market and corral potential customers. Data mining companies collect this wealth of information and sell it to retailers who use it to gauge your interests and tailor marketing to your perceived desires.

All of the websites you visit collect some amount of information about you, whether it is your name or what other sites you have visited recently. Most of the time, we’re being tracked without knowing it. For example, most websites now include Facebook and Twitter buttons so you can “like” the page you are viewing or “Tweet” about it. Whether or not you click the buttons, however, the companies can still determine which pages you’ve visited and file that information away for later use. ...

As the EyeSee mannequins show, you no longer even have to be in front of your computer to have your consumer data accessed, uploaded, stored and tracked. In August 2012, for example, data mining agency Redpepper began testing a service known as Facedeals in the Nashville, Tennessee area. Facial recognition cameras set at the entrances of businesses snap photos of people walking in, and if you’ve signed up to have a Facedeals account via your Facebook, you receive instant coupons sent to your smartphone. Similarly, a small coffee chain in San Francisco, Philz Coffee, has installed sensors at the front door of their stores in order to capture the Wi-Fi signal of any smartphone within 60 yards. Jacob Jaber, president of Philz Coffee, uses the information gleaned from these sensors to structure his stores according to the in-store behavior of customers. ...

Not even politicians are immune to the lure of data mining. In the run-up to the 2012 presidential election, the Romney and Obama campaigns followed voters across the web by installing cookies on their computers and observing the websites they visited in an attempt to gather information on their personal views. CampaignGrid, a Republican affiliated firm, and Precision Network, a Democratic affiliated firm, both worked to collect data on 150 million American Internet users, or 80% of the registered voting population. ...

—John W. Whitehead
excerpted
https://www.rutherford.org, December 17, 2012
Where Will Consumers Find Privacy Protection from RFIDs?:
A Case for Federal Legislation

What Are RFIDs? How Do RFIDs Work?

…RFID [Radio Frequency Information Device] technology is an automatic identification system that identifies objects, collects data, and transmits information about the object through a “tag.” A device called a reader extracts and processes the information on the tag. Experts characterize RFIDs as devices “that can be sensed at a distance by radio frequencies with few problems of obstruction or misorientation.”¹ In essence, RFIDs are wireless barcodes. However, unlike typical barcodes, which are identical for all common products, each RFID has a unique identification. Therefore, every individually tagged item has a different barcode sequence. Typical barcodes also require unobstructed paths for scanning, whereas RFIDs can be scanned through solid objects.² RFIDs have communication signals that facilitate data storage on RFID tags and enable the stored information to be gathered electronically—hypothetically permitting, for example, Coca-Cola to have a database storing information about the life cycle of a Coke can. The database would contain tracking details from the moment the can is manufactured through its processing at a garbage dump—since RFID readers can be attached to garbage trucks. Between the birth and death of a customer’s Coke can, the RFID tags would tell the Coca-Cola Company where and when the Coke was purchased, what credit card the Coke was purchased with, and, in turn, the identity of the purchaser. Even if the customer did not purchase the Coke with a credit card, state issued ID cards equipped with RFID technology could relay the customer’s identity to RFID readers as he or she leaves the store. Coca-Cola’s final product of the RFIDs’ communications is a database of the life cycles of individual cans of Coke and personal information about their purchasers. With this myriad of information, Coca-Cola has the ability to individually market to each of the 1.3 billion daily Coca-Cola consumers. …

How Are RFIDs Used?

RFIDs are currently used in many ways, including, “livestock management[,] 24 hour patient monitoring[,] authentication of pharmaceuticals[,] tracking consignments in a supply chain[,] remote monitoring of critical components in aircraft [, and] monitoring the safety of perishable food.”³ Advocates of RFID technology, including retailers and manufacturers, praise the increased functionality and efficiency that will likely ensue from using RFIDs. Once all products are individually tagged, shoppers are expected to be able to purchase items without checking-out. This should be possible since RFID readers will be able to scan every item as the customer exits the store and charge an RFID credit card, thereby simultaneously increasing efficiency and possibly reducing shoplifting. Other RFID uses include easy monitoring of product recalls, tracking lobsters for conservation purposes, and purchasing products with transaction-free payment systems.⁴ Additionally, in October 2003, the Department of Defense set standards mandating suppliers to place

²Id.
³Viviane Reding, Member of the European Commission responsible for Information Society and Media, Address at EU RFID 2006 Conference: Heading for the Future, RFID: WHY WE NEED A EUROPEAN POLICY, 1,3 (Oct. 16, 2006).
⁴David Flint, Everything with Chips!, BUS. L. REV., Mar. 2006, 73, 73.
RFID tags on all packaging for the Department of Defense. Thus, RFIDs can be used to increase efficiency and safety. …

Do Consumers Have a Right to Privacy from RFIDs under Tort Law?

…In the context of RFIDs, there are some situations where gathering information from RFID tags violates consumers’ privacy expectations. For example, a consumer does not have a reasonable expectation of privacy when carrying RFID equipped items in a transparent shopping cart. However, once the items are placed in an opaque bag, a right to privacy immediately arises. If a business or third-party gathers data about the items once the items are no longer visible to the naked eye, there is an objective invasion of privacy. Gathering information stored in the RFID tag in a winter jacket worn in public is also not an invasion of privacy, yet pulling data off undergarments is intrusive. However, since the home is always considered a private place, once an active RFID tag enters the home, any information gathered, including information from the winter jacket, immediately offends the principles of privacy. Protecting consumers from unreasonably intrusive actions of businesses requires that RFID tags become unreadable once they enter private places.

However, the fundamental nature of the technology does not harmonize with this privacy goal because RFID readers do not scrutinize whether the information is considered private before it gathers data from the tag. …

With new technologies come new methods of consumer tracking and changing parameters for what may be considered highly offensive. These new methods of tracking are not considered intrusive simply because the nature of the technology requires consumer purchases to be recorded. If individuals make active decisions to use a credit card instead of cash—a voluntary act—their purchases can be tracked. Similarly, the gathering of information stored on RFID technology in consumer goods may not be deemed highly offensive depending on changing consumer expectations. …

—Serena G. Stein
excerpted and adapted
Duke Law & Technology Review, 2007, No.3

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6Tort Law — covers civil wrongs resulting in an injury or harm constituting the basis for a claim by the injured person
Text 4

RFID Consumer Applications and Benefits

...One of the first consumer applications of RFID was automated toll collection systems, which were introduced in the late 1980s and caught on in the 1990s. An active transponder is typically placed on a car's or truck's windshield. When the car reaches the tollbooth, a reader at the booth sends out a signal that wakes up the transponder on the windshield, which then reflects back a unique ID to the reader at the booth. The ID is associated with an account opened by the car owner, who is billed by the toll authority. Consumers spend less time fumbling for change or waiting on lines to pay their toll fee.

In the late 1990s, ExxonMobil (then just Mobil) introduced Speedpass, an RFID system that allows drivers who have opened an account to pay for gas automatically. Drivers are given a small, passive 13.56 MHz transponder in a small wand or fob that can be put on a key chain. To pay for gas, they just wave the key fob by a reader built into the gas pump. Seven million people in the United States use the system, and it has increased the number of cars each gas station can serve during rush periods. ...

RFID has other consumer applications, besides being a convenient payment system. One is the recovery of lost or stolen items. A company called Snagg in Palo Alto, Calif., has created an electronic registry for musical instruments. It provides an RFID tag that can be affixed to a classic guitar or priceless violin and keeps a record of the serial number in the tag. If the instrument is recovered by the police after being lost or stolen, they can call Snagg, which can look up the rightful owner. ...

Merloni Elettrodomestici, an Italian appliance maker, has created a smart washing machine. When you drop your clothes in the machine, an RFID reader in the appliance can read the tags in the clothes (if your clothes have tags) and wash the clothes based on instructions written to the tag.

Whether smart appliances with RFID readers catch on depends on how long it takes for RFID tags to become cheap enough to be put into packaging for items. It also depends on whether consumers find RFID-enabled products convenient enough to accept the potential invasion of privacy that comes with having RFID tags in products. But RFID will certainly have a positive impact on people's lives in less direct ways.

One area of importance is product recalls. Today, companies often need to recall all tires, meat or drugs if there is a problem to ensure people's safety. But they can never be sure they recovered all the bad goods that were released into the supply chain. With RFID, companies will be able to know exactly which items are bad and trace those through to stores. Customers that register their products could be contacted individually to ensure they know something they bought has been recalled. ...

And RFID should enable consumers to get more information about the products they want to purchase, such as when the items were made, where, whether they are under warrantee and so on. When RFID tags are eventually put on the packaging of individual products, consumers will be able to read the tag with a reader embedded in a cell phone or connected to a computer and download data from a Web site. They'll be able to learn, for example, whether the steak they are about to buy is from an animal that was raised organically in the United States. Some companies will be reluctant to share this information, but smart companies will provide it to their customers to build trust and loyalty.
RFID could also have an [sic] positive impact on our environment by greatly reducing waste. The main reason many companies want to use RFID is to better match supply and demand and to make sure that products are where they are supposed to be. If successful, there should be fewer products that are thrown away because no one wants to buy them or they pass their sell-by date (it’s estimated that 50 percent of all food harvested in the United States is never eaten).

RFID tags could also help improve our environment by identifying hazardous materials that should not be dumped in landfills. One day, robots at landfills might be equipped with RFID tags, and they might be able to quickly sort through garbage to locate batteries and other items that contain toxic materials. …

—Bob Violino
excerpted
http://www.rfidjournal.com, January 16, 2005
Part 3

Text-Analysis Response

Your Task: Closely read the text provided on pages 19 and 20 and write a well-developed, text-based response of two to three paragraphs. In your response, identify a central idea in the text and analyze how the author’s use of one writing strategy (literary element or literary technique or rhetorical device) develops this central idea. Use strong and thorough evidence from the text to support your analysis. Do not simply summarize the text. You may use the margins to take notes as you read and scrap paper to plan your response. Write your response in the spaces provided on pages 7 through 9 of your essay booklet.

Guidelines:

Be sure to
- Identify a central idea in the text
- Analyze how the author’s use of one writing strategy (literary element or literary technique or rhetorical device) develops this central idea. Examples include: characterization, conflict, denotation/connotation, metaphor, simile, irony, language use, point-of-view, setting, structure, symbolism, theme, tone, etc.
- Use strong and thorough evidence from the text to support your analysis
- Organize your ideas in a cohesive and coherent manner
- Maintain a formal style of writing
- Follow the conventions of standard written English
The following excerpt is from a speech delivered by suffragette Anna Howard Shaw in 1915.

...Now one of two things is true: either a Republic is a desirable form of government, or else it is not. If it is, then we should have it, if it is not then we ought not to pretend that we have it. We ought at least to be true to our ideals, and the men of New York have for the first time in their lives, the rare opportunity on the second day of next November, of making the state truly a part of the Republic. It is the greatest opportunity which has ever come to the men of the state. They have never had so serious a problem to solve before, they will never have a more serious problem to solve in any future of our nation's life, and the thing that disturbs me more than anything else in connection with it is that so few people realize what a profound problem they have to solve on November 2. It is not merely a trifling matter; it is not a little thing that does not concern the state, it is the most vital problem we could have, and any man who goes to the polls on the second day of next November without thoroughly informing himself in regard to this subject is unworthy to be a citizen of this state, and unfit to cast a ballot.

If woman's suffrage is wrong, it is a great wrong; if it is right, it is a profound and fundamental principle, and we all know, if we know what a Republic is, that it is the fundamental principle upon which a Republic must rise. Let us see where we are as a people; how we act here and what we think we are. The difficulty with the men of this country is that they are so consistent in their inconsistency that they are not aware of having been inconsistent; because their consistency has been so continuous and their inconsistency so consecutive that it has never been broken, from the beginning of our Nation's life to the present time. If we trace our history back we will find that from the very dawn of our existence as a people, men have been imbued with a spirit and a vision more lofty than they have been able to live; they have been led by visions of the sublimest truth, both in regard to religion and in regard to government that ever inspired the souls of men from the time the Puritans left the old world to come to this country, led by the Divine ideal which is the sublimest and the supremest ideal in religious freedom which men have ever known, the theory that a man has a right to worship God according to the dictates of his own conscience, without the intervention of any other man or any other group of men. And it was this theory, this vision of the right of the human soul which led men first to the shores of this country. ...

Now what is a Republic? Take your dictionary, encyclopedia lexicon or anything else you like and look up the definition and you will find that a Republic is a form of government in which the laws are enacted by representatives elected by the people. Now when did the people of New York ever elect their own representatives? Never in the world. The men of New York have, and I grant you that men are people, admirable people, as far as they go, but they only go half way. There is still another half of the people who have not elected representatives, and you never read a definition of a Republic in which half of the people elect representatives to govern the whole of the people. That is an aristocracy and that is just what we are. We have been many kinds of aristocracies. We have been a hierarchy of church members, than an oligarchy of sex. ...
Now I want to make this proposition, and I believe every man will accept it. Of course he will if he is intelligent. Whenever a Republic prescribes the qualifications as applying equally to all the citizens of the Republic, when the Republic says in order to vote, a citizen must be twenty-one years of age, it applies to all alike, there is no discrimination against any race or sex. When the government says that a citizen must be a native-born citizen or a naturalized citizen that applies to all; we are either born or naturalized, somehow or other we are here. Whenever the government says that a citizen, in order to vote, must be a resident of a community a certain length of time, and of the state a certain length of time and of the nation a certain length of time, that applies to all equally. There is no discrimination. We might go further and we might say that in order to vote the citizen must be able to read his ballot. We have not gone that far yet. We have been very careful of male ignorance in these United States. I was much interested, as perhaps many of you, in reading the Congressional Record this last winter over the debate over the immigration bill, and when that illiteracy clause was introduced into the immigration bill, what fear there was in the souls of men for fear we would do injustice to some of the people who might want to come to our shores, and I was much interested in the language in which the President vetoed the bill, when he declared that by inserting the clause we would keep out of our shores a large body of very excellent people. I could not help wondering then how it happens that male ignorance is so much less ignorant than female ignorance. When I hear people say that if women were permitted to vote a large body of ignorant people would vote, and therefore because an ignorant woman would vote, no intelligent women should be allowed to vote, I wonder why we have made it so easy for male ignorance and so hard for female ignorance. …

—Anna Howard Shaw

excerpted from “The Fundamental Principle of a Republic”
delivered at Ogdensburg, New York, June 21, 1915
http://www.emersonkent.com