

UNIVERSITY OF NORTH DAKOTA SCHOOL OF LAW
Intellectual Property
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FINAL EXAMINATION

Limited open-book. Four hours.

Write your exam number here: _____

All exam materials (including this booklet and your response) must be turned in at the end of the period. You will not receive credit unless you return this booklet with your exam number written above. Do not turn the page until instructed to begin.

Notes and Instructions

1. Assume that today's date is December 11, 2008.
2. You may write anywhere on the examination materials — e.g., for use as scratch paper. Only answers and material recorded in the proper places, however, will be graded.
3. Your goal is to show your mastery of the material presented in the course and your skills in analyzing legal problems. It is upon these bases that you will be graded.
4. During the exam: You may not consult with anyone — necessary communications with the proctors being the exception. You may not view, attempt to view, or use information obtained from viewing materials other than your own.
5. After the exam: You may discuss the exam with anyone, except that you may not communicate regarding the exam with any enrolled member of the class who has not yet taken the exam.
6. Unless expressly stated otherwise, assume that the facts recited herein occur within one or more hypothetical states within the United States. Base your exam answer on the general state of the common law and typical statutory law in the United States, including all rules, procedures, and cases as presented in class, as well as, where appropriate, the theory and history discussed in class. It is appropriate, if you wish, to note differences between minority and majority approaches in your answer, as well as statutory or other differences among jurisdictions.
7. Unless otherwise explicitly stated, all references to patents and patent applications are to be understood as being in and of the United States, nonprovisional in nature, and of the utility kind (as opposed to plant or design).
8. Note all issues you see. More difficult issues will require more analysis. Spend your time accordingly.
9. Organization counts.
10. Read all exam question subparts before answering any of them — that way you can be sure to put all of your material in the right place.
11. Feel free to use abbreviations, but only if the meaning is entirely clear.
12. **Bluebooks:** Make sure your handwriting is legible. I cannot grade what I cannot read. Skip lines and write on only on one side of the page. Please use a separate bluebook for each subpart.
13. **Computers:** Please clearly label each subpart of your answer.
14. This exam is "limited open book." The only materials to which you may refer during the exam, other than this exam booklet, scratch paper provided as part of the exam administration, and any special references specifically authorized by the Dean of Students office, are: (a) the authorized copy of the Intellectual Property Wypadki, which will be distributed to you in the exam session, and (b) a "reference sheet," consisting of a single 8.5-inch-by-11-inch sheet of paper, upon which anything may be written and/or printed, including on both sides, front and back. You may not consult or access any other piece of paper, including, but not limited to, a copy of the Intellectual Property Wypadki that you have printed out yourself. No materials may be shared during the exam.
15. Do not write your name on any part of the exam response or identify yourself in any way, other than to use your examination I.D. number appropriately. Self-identification on the exam will, at a minimum, result in a lower grade, and may result in disciplinary action.
16. Good luck!

“Elements of the Heart”

Annalie, the only child of Björn and Margareta Adelborg, grew up on her family’s homestead farm just outside of Resaro, Minnekota. Her daddy’s girl, Annalie followed her father everywhere, learning everything he had to teach her. During the day, she helped him tend to the animals and work on the tractor. At night, she sat on a stool in her dad’s chemistry lab and watched in wonderment as he mixed and melted powders and potions until her mother said it was time for bed. At that point, every night, Annalie’s father would stop his experiments long enough to read Annalie a bedtime story. Her favorite was *Papa Would You Find Me?* by Willa Wedlen. The book told the story of a bunny who seeks reassurances from her father that if she is ever lost, he will always find her. In the course of the story, the bunny asks about being lost at the beach, being lost in the woods, being lost in wind and rain, and being lost in a busy city. After each terrifying scenario is explained by the baby bunny, the father rabbit vows that, no matter what, he will always be able to find his baby. The book ends with the father rabbit giving the baby bunny a hug and a kiss good-night. It was a scene that Annalie required her father to re-enact every evening before she would close her eyes and go to sleep.

One day, when Annalie was eight years old, she was waiting by the fireplace for her father to come home from town. Annalie had been studying chemistry all day and was hoping to impress her father with a major accomplishment – her memorization of the entire periodic table of the elements. But instead of her dad coming home, a minister came to knock on the door. He took Annalie’s mother into the next room and told her something that caused her jaw to clench and tears to roll down her face. A drunk driver had hit and killed Björn as he was walking out of the post office carrying a chemistry set he’d ordered for Annalie.

After the funeral, Annalie’s mother locked the door to the chemistry lab and never entered it again. But even while the lab was off limits, Annalie did not forget her infatuation with the flasks and beakers. As hard as Annalie worked on the farm, she worked even harder in school. While naturally gifted in the creative arts, Annalie applied herself with ferocious intensity to master math and science, extending her studies at night with used college textbooks she purchased at a thrift store. As a high-school freshman, she persuaded the principal to let her take Advanced Placement Chemistry. She not only aced it, she received a 5 – the highest possible grade – on the AP exam.

Meanwhile, Annalie’s mother pursued a sideline passion at night as a toy designer. An expert seamstress, Margareta made unique and adorable plush animals. She sent samples to large toy companies on the East Coast, but she never received anything back other than rejection letters. The teddy bears and other cuddly creatures accumulated on the pillows at the head of Annalie’s bed.

At the age of 15, Annalie was on track to graduate high school a year and a half early. One night, with Annalie running a fever, her mother drove to the drug store in town to pick up tylenol. On her way back, a sudden dense fog rolled in over the interstate. In the ensuing eight-car pile up, Annalie’s mother was the only fatality.

The social workers wanted to send Annalie to live with her aunt, more than 200 miles away. But Annalie, ever impressive in her moxie and smarts, persuaded everyone to let her stay at the family farm so that she could finish her studies at her own high school, thereby not falling behind her accelerated pace. Money would not be an issue; with the life insurance

proceeds from the policies of both her parents, Annalie had the financial means to take care of herself. And everyone agreed that Annalie had emotional maturity far beyond her years.

The night after her mother's funeral, Annalie took the key out of her mother's nightstand and unlocked the door to her father's laboratory. She sat down at the long wooden workbench, used her apron to clear away the dust, and opened the first of Björn Adelborg's many laboratory notebooks.

As she read, Annalie learned that the family farm sat on top of a vast deposit of ore containing seven rare-earth metals – yttrium (Y), ytterbium (Yb), terbium (Tb), erbium (Er), gadolinium (Gd), holmium (Ho), and thulium (Tm). Mineralogically speaking, the deposit was a treasure – the only one of its kind known on Earth. But economically, it was unremarkable. Although rare, the metals were not very valuable. The elements had few known uses. Traces of the metals were useful in artificial gemstones and high-end laser equipment, but current world production was more than adequate to satisfy these demands. Between the ore's depth on the farm and current market prices, the Adelborgs' vast mineral formation was an empty promise.

But that had not stopped Annalie's dad. By reading his notebooks, Annalie became witness to her father's long struggle to find new industrial applications for the metals – uses that would change the market and make the mineral deposit economically viable. Most of his research had involved trying to use the farm metals to create a new alloy (a metal made from a mixture of more than one element) that would work as a powerful permanent magnet.



Fig. 1: The Magnetix-brand building toy, made with neodymium-iron-boron "NIB" magnets.

Indeed, other rare-earth metals had been found to be useful for making permanent magnets. You are probably familiar with magnets made of neodymium, iron, and boron. These "NIB" magnets, which have become increasingly common in the last several years, are a great deal stronger than traditional ceramic magnets. NIB magnets make extremely strong refrigerator magnets, and they are used in a new generation of building toys, such as RoseArt's Magnetix. Similar properties are available from samarium-

cobalt magnets, another rare-earth combination.

The vast potential was clear. If a strongly magnetic alloy could be found using one or more of the seven Adelborg farm elements, the economic situation for mining the farm's ore deposit would change completely. Annalie put down the notebook she was reading and stared at the dormant bunsen burners and test tubes. At that moment, Björn's struggle became Annalie's.

After graduating from high school, Annalie passed up a full scholarship from the University of Minnesota in order to devote herself full-time to completing her father's unfinished work. Days and nights, she toiled by herself in the lab. The numbers and symbols

1 H 1.008																	1 H 1.008	2 He 4.003
3 Li 6.940	4 Be 9.02											5 B 10.82	6 C 12.010	7 N 14.008	8 O 16.000	9 F 19.00	10 Ne 20.183	
11 Na 22.997	12 Mg 24.32	13 Al 26.97											13 Al 26.97	14 Si 28.06	15 P 30.98	16 S 32.06	17 Cl 35.457	18 Ar 39.944
19 K 39.096	20 Ca 40.08	21 Sc 45.10	22 Ti 47.90	23 V 50.95	24 Cr 52.01	25 Mn 54.93	26 Fe 55.85	27 Co 58.94	28 Ni 58.69	29 Cu 63.57	30 Zn 65.38	31 Ga 69.72	32 Ge 72.60	33 As 74.91	34 Se 78.96	35 Br 79.916	36 Kr 83.7	
37 Rb 85.48	38 Sr 87.63	39 Y 88.92	40 Zr 91.22	41 Nb 92.91	42 Mo 95.95	43 Tc 101.1	44 Ru 101.1	45 Rh 102.91	46 Pd 106.7	47 Ag 107.868	48 Cd 112.41	49 In 114.76	50 Sn 118.70	51 Sb 121.76	52 Te 127.61	53 I 126.92	54 Xe 131.3	
55 Cs 132.91	56 Ba 137.36	57 La 138.92 <small>SEE LANTHANIDE SERIES</small>	72 Hf 178.6	73 Ta 180.98	74 W 183.92	75 Re 186.31	76 Os 190.2	77 Ir 193.1	78 Pt 195.23	79 Au 197.2	80 Hg 200.61	81 Tl 204.39	82 Pb 207.21	83 Bi 209.00	84 Po	85	86 Rn 222	
87 Fr	88 Ra	89 Ac <small>SEE ACTINIDE SERIES</small>	90 Th	91 Pa	92 U	93 Np	94 Pu	95	96									
LANTHANIDE SERIES		57 La 138.92	58 Ce 140.13	59 Pr 140.92	60 Nd 144.27	61	62 Sm 150.43	63 Eu 152.0	64 Gd 156.9	65 Tb 157.2	66 Dy 162.46	67 Ho 163.5	68 Er 167.2	69 Tm 169.4	70 Yb 173.04	71 Lu 174.99		
ACTINIDE SERIES		89 Ac	90 Th 232.12	91 Pa 231	92 U 238.07	93 Np 237	94 Pu	95	96									

Fig. 2: The periodic table of the elements, with the Adelborg farm elements shaded.

of the periodic table filled her dreams, and the gurgling of glass tubing filled her days. One night, already woozy from having forgotten to eat that day, Annalie slipped on a puddle of reagent on the floor and hit her head on the hard edge of the workbench.

When she came to, Annalie had a picture in her head of interrelated numbers. In her vision, she saw that all existing magnetic alloys had certain mathematical relations that connected the ratios of the elements in the alloys to various derivatives of their numbers of up quarks, down quarks, and valence electrons. She hunkered down and set to programming her computer with an algorithm that would sift through the numbers and generate ratios for her to try in forming new alloys.

On December 9, 2007, after days and nights working with barely any rest, Annalie tried alloy formula no. 2,079. After mixing and melting the metals in a crucible set between energized coils of copper, Annalie let the sample cool. Then something truly wonderful happened. The little button of metal that solidified spontaneously leapt out of the crucible and attached itself to the steel framework of the lab apparatus! Annalie measured the field strength. It was nearly 100 times as powerful as an NIB magnet!

On December 11, 2007, Annalie announced her discovery about the new magnetic material on her blog. She explained that the material was an alloy of holmium, terbium, erbium, and yttrium, but she did not disclose the proportions. She figured that, as a practical matter, no one would be able to figure out the precise proportions unless they obtained a sample of the material. To blog about the substance, she needed a name for it, so she created a word out of a combination of the chemical symbols of the ingredient elements: "HoTbErY" – which she simplified to "hotberry."

Resigned to not being able to patent her alloy, since it was just a combination of metals, Annalie worked to come up with an application for the hotberry magnets. Over the ensuing days, she labored to find a breakthrough application with real "wow factor." Late at night on December 14, 2007, after two full days without sleep, she finally broke down in tears. Sobbing, she wished for nothing so much as a hug from her departed parents. It was at

that moment, in the depth of her despair, that Annalie conceived of the idea for the Baby-Come-to-Me Bears.

Working feverishly to create prototypes, Annalie sewed hotberry magnets into her own teddy bears, ones that had been created for her from scratch by her mother. When Annalie was done, early in the morning of December 15, she set the papa teddy bear on one side of a table and the baby teddy bear on the other side. Like magic, the papa bear and baby bear swept across the table toward each other and bound themselves together in a tight embrace, their beatific smiles beaming over one another's shoulders.

The next day, December 16, 2007, Annalie put pictures of the Baby-Come-to-Me Bears on her blog and offered to custom-make a set for anyone who would pay \$250. No orders came through. Though frustrated, Annalie remained a believer in her invention. On December 19, 2007, Annalie blogged again to offer the custom-made bears, but this time, instead of just photos, she posted a video of the bears as they magically moved together into each other's arms.

Overnight, the video became a viral sensation. Annalie had her first order the next morning, on December 20, 2007, before sunrise. Almost immediately, she had two more orders. She was so excited that someone wanted her bears, she wrote back insisting that she would not accept any money for them. But by the time she hit send, she found that her inbox had flooded to capacity. Thrilled with the attention, but realizing that she could not make bears for everyone, Annalie put up a new post on her blog explaining that people wanting the bears would have to wait until she could make arrangements with a toy manufacturer.

On December 21, 2007, she went into town to buy stock teddy bears in which she could sew magnets for the three people with whom she had already corresponded. At the craft store, Annalie demonstrated her prototype bears on the fabric-cutting table and questioned onlookers to get their reactions. Of course, everyone was blown away. Annalie proceeded to complete the new bears the next day, December 22; put them in the overnight mail on December 23; and the first sets of bears were received by their very grateful new owners on Christmas Eve, December 24.

After the New Year, Annalie hired an assistant, Steve Szerling. Annalie had Steve cook up batches of hotberry alloy and sew the resulting magnets into Baby-Come-to-Me Bears, which she then had Steve take to toy companies in hopes of securing a major manufacturing and distribution deal. Annalie also had Steve work with her computer program, outputting new alloy ratios for Annalie to test in the lab.

Since Steve was taking care of so much, Annalie found that she had time to focus on other pursuits. That's when she penned a children's book about the Baby-Come-to-Me Bears. The book featured three vignettes in which a baby bear gets lost. In the first, the baby bear gets lost in a crowd, but is soon reunited with her father. In the second, the baby bear gets lost in a forest, but is soon reunited with her mother. In the final scene, a storm carries the baby bear far away from home, where the baby bear falls asleep under a tree. When the baby bear wakes up, she is at home in bed, with both of her parents at her bedside. The mother and father bears then lean in for a family hug, a scene that graces the last page.

Annalie titled the book *The Baby-Come-to-Me Bears Book*. She then looked for someone to illustrate it. As soon as she reviewed the web portfolio of illustrator Ian Illidge, she called him up and struck a deal right then and there over the phone. Annalie would pay Ian \$2,000 up front, plus another \$23,000 if and when the book was published. In return, Annalie would own the whole book, including the copyright in the illustrations. Since Ian lived more than a thousand miles away, Annalie and Ian did all their collaborations with various computer

teleconferencing tools. The bears were modeled closely on those originally sewn by Annalie's mother.

Throughout 2008, Annalie did little to capitalize on the promise of the hotberry magnets and the Baby-Come-to-Me Bears. After she finished collaborating with Ian on the illustrations for the book, Annalie turned the book over to Steve so that he could work on getting a publishing deal. Meanwhile, Annalie threw herself back into her lab work on a full-time basis, regularly devoting 20 hours a day to trying out new alloys.

Steve eventually did get a deal for the books and the toys, and on August 5, 2008, *The Baby-Come-to-Me Bears Book* hit bookstore shelves at the same time the Baby-Come-to-Me Bears toys, with their hotberry magnets, hit toy-store shelves.

Rather than throwing herself into the marketing process, Annalie stayed homebound and focused on nothing other than her experiments. On November 10, 2008, at the urging of her publisher, Annalie finally left Minnekota and traveled to the big city of Philadelphimore, Maryland to do several book signings and a string of radio and TV interviews.

Her first interview was at a college radio station, WUUP, with a Swedish exchange student, Ulf Ugglä. Before the interview, Annalie asked Ulf if, since this was her first media appearance, she could record the interview on a cassette tape she brought. Ulf obliged and put the tape into the studio's rack-mounted cassette recorder. He started the interview by asking Annalie how she came up with the name "hotberries" for her magnets, and whether the word derived from "the Totberries."

"Do you know who the Totberries are?" asked Ulf.

Annalie made a strange, nervous snorting kind of sound and said, "I have no idea."

Ulf explained that the Totberries were cartoon characters invented as part of a public-service advertising campaign undertaken by the Swedish Dental Education Foundation in the 1990s. The toddler-aged anthropomorphized berries urged children to abstain from candy and choose, instead, healthy snacks. "That way you can be cool like us - the Totberries!" they would shout.

At Ulf's elementary school, as Ulf remembered, nobody wanted to "be cool" like a cartoon lingonberry. So candy became all the rage. His curiosity piqued, Ulf googled the Totberries. Ulf's experience was not unique. According to the Swedish Wikipedia, the Swedish Dental Education Foundation announced back in 1995 that the Totberries campaign was being "suspended indefinitely" after studies blamed it for soaring cavity rates.

The next day Annalie was interviewed on a local TV morning show. Right off, Annalie was asked what she thought of the Hotberry Bears and whether she had a problem with them. Annalie was caught off guard. "Um, no. I don't have a problem, I guess," she responded with a quizzical look on her face.

She didn't think of the question again until a few weeks later, on December 1, 2008, when she was back home in Minnekota. She then googled "hotberry bears." To her dismay, she found that the Hotberry Bears were a line of toy bears made by MegaFun, Inc. - a company that had rejected Steve's pitch. The toys were loaded with magnets made of Annalie's holmium-terbium-erbium-yttrium alloy. She soon found out that the Hotberry Bears were featured in their own made-for-television animated feature, *The Hotberry Bears Movie*, aired on The MegaFun Channel, a national cable network owned by MegaFun, Inc.

Annalie immediately ordered the movie on DVD. Watching it, Annalie found that the movie was essentially identical to *The Baby-Come-to-Me Bears Book*, with three main

differences: First, instead of there being only one baby bear, MegaFun's version had twelve collectible baby bears in the Hotberry Bears family, the whole dozen getting lost at once. Second, the movie's plot was much more developed and detailed than the plot of the book. That is to say, while the movie contained basically every element of the book, the book contained only a small portion of the material in the movie. Third, the Hotberry Bears differed in appearance from Annalie's Baby-Come-to-Me Bears. The MegaFun versions had longer snouts, bigger eyes that were set further apart, and fur of a lighter shade of brown.

Outraged, Annalie sent off a terse letter to MegaFun, accusing them of being intellectual-property pirates. On December 10, 2008, Annalie opened her mail to find MegaFun's response. It was a cease-and-desist letter, warning Annalie not to use the words "hotberry" or "hotberries" to describe any of her products. The letter claimed that doing so would infringe upon MegaFun's intellectual-property rights. Enclosed with the letter was a copy of a license agreement MegaFun had concluded with the Swedish Dental Education Foundation.

On the verge of tears, needing some human companionship, Annalie asked Steve if he would like to drive down the interstate to Fresher's restaurant to get some pancakes. Steve readily agreed, saying that he had something he needed to discuss with Annalie. At Fresher's, Annalie opened the menu to find that the featured item for the national restaurant chain was "Hotberry Pancakes."

LICENSE AGREEMENT

This agreement, dated Aug. 8, 2008, is by and between Sveriges Tandvårdundervisningförbund Intellectual Property Holding Aktiebolag (The Swedish Dental Education Foundation Intellectual Property Holding Corporation, abbreviated herein as "STIPH AB") and MegaFun, Inc. ("MF"). The term of this agreement is one year, renewable, in writing, at the sole option of MF, for consecutive terms of one year each for a total of seven years.

For the sum of \$100,000 per year, which MF shall pay up front, MF shall be licensed to use, on an exclusive basis, the "Hotberry" trademark, including in the form "The Hotberry Bears," for use on and in toys, apparel, books, videogames, souvenir merchandise, housewares, automotive goods, lawn-and-garden merchandise, consumer electronics, food products, chewing gum, cosmetics, office supplies, animated and live-action film and video productions, live-theatre productions, radio productions, musical productions, comic books, magazines, collector cards, and all other collectibles and merchandise.

Within 30 days of the end of the seventh term, MF may, upon payment of a one-time fee of \$1,000,000, purchase all intellectual-property rights to the word "Hotberry" in all forms in perpetuity.

Dejected, Annalie asked Steve what it was he wanted to tell her.

"Annalie, you've paid me hardly anything in wages," he said, "and you've paid me even less in attention. I'm going someplace where I'll be valued. I've been offered a job by Hexetron Systems. With what I've learned about your alloy-ratio algorithm software, and knowing the correct proportions of metals to use in hotberry magnets, I'll be extremely valuable at Hexetron. I'll finally be rewarded with the kind of lifestyle and appreciation I deserve."

With that, Steve stood up, dropped his napkin on his plate, and walked out the door. At that moment, Annalie felt more alone than ever before.

Driving back to the farm, Annalie turned on the radio. A commercial for a national auto insurance company was playing. The commercial humorously made fun of a woman who didn't know how to shop for car insurance. Played over and over again within the commercial was a woman's voice who, with a strange,

Fig. 3: The license agreement sent to Annalie.

nervous snorting kind of sound, repeated the catch phrase, "I have no idea."

It was Annalie's voice, recorded from her interview with Ulf.

With a melancholy grimace, Annalie reflected that now, when she was finally being featured in the national media, no one was likely to know it was her.

That night, trying to get sleepy, Annalie sat up in bed with her laptop, searching the internet for information relating to her hotberry magnets. That's when she found that Paula Portnoy, a successful independent toy designer, had submitted a patent application claiming magnetic building toys, such as the Magnetix brand set, made with hotberry magnets. Why hadn't Annalie thought to do that? She had been so focused on the Baby-Come-to-Me Bears that she hadn't seen the opportunity right in front of her face.

Early the next morning, the telephone rang. It was Dana Davos, the mining company executive that Annalie had recently called to inquire about opening up a mine on her land. Dana said that she was very, very sorry to be the bearer of such bad news, but Dana had researched the title to the Adelborg farm, and it turned out that the mineral rights had been sold away two generations ago. In fact, a mine would be opened up on Annalie's property. Very soon, actually. But the profits would all be going to the owner of the mineral rights. Annalie would only be receiving reasonable compensation for the loss of farming yields on the portion of her land used for the mine's surface operations.

Annalie hung up the phone. She dialed your number. Her intellectual property, if she has any, seems to be the only thing of value she has left, she says. With a voice cracking from exhaustion and grief, she asks you for your help.

QUESTION 1 (approximately 90% of the exam grade)

Analyze Annalie Adelborg's rights and liabilities. Organize your response as follows, clearly labeling the subparts:

Subpart A: Discuss issues concerning patents, if any.

Subpart B: Discuss issues concerning trade secrets, if any.

Subpart C: Discuss issues concerning copyright, if any.

Subpart D: Discuss issues concerning trademark, if any.

Subpart E: Discuss issues concerning other relevant intellectual-property doctrines, if any, that are not specified for subparts A through D.

A few things to keep in mind:

The subparts will not all be given equal weight. The subpart structure is provided for organizational purposes only. Thus, it may be entirely appropriate for one subpart to be answered with considerable brevity, while another subpart might require very detailed analysis. You should divide your time proportionately among the subparts according to which ones require the most discussion and analysis. Plan ahead to put information where it belongs.

Also, as you may have noticed, Annalie can sometimes get overly focused on one thing and lose track of all else. So if there is anything Annalie should do in the near future, please provide specific deadlines for her.

QUESTION 2 (approximately 10% of the exam grade)

Pick one aspect of your analysis where the law seems to be against Annalie Adelborg. Then, using policy arguments and theory, argue for a change in the law that would be to Annalie's benefit.