

Patent Law
Fall 2007 – Michael Risch
Final Exam

This is a take-home exam. You have eight (8) hours to complete the exam and upload it from the time you download it. If you experience technical difficulties, you may turn in a paper copy to my secretary, Karen Feather, who will note the time you turned it in (make sure to tell her your exam number), though that is not the preferred method. I recommend that you do not download the exam at a time when the due time will be outside of business hours of the law school.

Note that the exam will be distributed over a two week period. You must be careful not to disclose any details of the exam to your classmates, or discuss any aspect of the exam (or your answer!) until after December 15, the last day of finals. Page two of this exam is a confirmation that you understand this – please print, sign, and turn in to Karen Feather at some point before December 15. You may use any written materials you desire for the exam, but you may not receive help from any person.

Please be sure to remove all personal information from your document properties (document -> properties in Word). Also make sure that your exam number appears on each page, which is most easily done with a header or footer.

This exam includes a strict word limit of 4000 words, which is approximately 13-15 pages of a proportional spaced font, or many fewer pages with smaller margins. Do not rely on page limits; you should count words using your word processor's "properties" menu item. You may divide the word limit however you wish, but I will stop reading after the word limit is reached. NOTE: You do not have to use all of the words available – the questions can be answered in less space than allotted.

Your exam must be typed, with double spacing on 8.5 x 11 paper size and reasonable font and margin size. Please begin the answer to each question at the top of a new page.

The questions are weighted as follows: Question 1, 50 points; Question 2, 35 points; Question 3, 7 points. If any of your answers depend on facts not stated in the problem, feel free to identify which facts would be helpful, and how they would affect resolution of the issue.

Patent Law final exam, Fall 2007.

I _____, confirm that I have obeyed and will obey the WVU Student Code with respect to the above exam, and that I have not discussed and until December 16, 2007, will not discuss any part of the exam, its contents, or my answer with any of my classmates.

Dated: _____ Signed: _____

Please return to Karen Feather by December 15, 2007 at 5PM.

The year is 2025. Despite a strong push for reform in 2007, the Patent Act has not changed, and all of the case law and statutes applicable on December 1, 2007 apply with the same force today.

Beginning in 1987, Patent “Pat” Holder watched a television show called Star Trek: The Next Generation. That show featured a room called the “holodeck” in which the show’s characters could interact with projected images of people, places or things that looked and behaved quite real. Of course, this was a television show so what the viewer saw consisted of real people, places, and things, as well as added computer graphic imagery (i.e. special effects). Holder always liked the idea of the holodeck, and never forgot the concept even after the show eventually ended its run.

Holder more than watched the show; Holder was a big fan. Holder owned more than 100 Star Trek books. One of those books, named “Star Trek: How it Works,” was published in 1990. That book contains the following entry:

The Holodeck: The Holodeck is created through the combination of holographic projectors and force field generators, both of which are available in the world of Star Trek. Future engineers design software that allow the projectors and generators to work together to create a lifelike environment that not only looks but also feels real.

While all of the books Pat Holder owns survive in Holder’s library, the great Hollywood disaster of 2012 has destroyed all original versions of the Star Trek: The Next Generation show, and all known DVD and VCR copies have either disappeared or become inoperable over time, such that no copies are available for viewing. It is a show that lives on only in the memory of its aging fans.

In January of 2018, Big Projector Company (“BPC”) introduced the first “holographic projector” in Japan. The holographic projector connects to a computer and displays three dimensional images of whatever graphic (no matter how lifelike) that the computer programmer desires, so long as the programmer creates a program defining the image. On July 1, 2018, BPC filed for a patent in Japan (written in Japanese) under the Patent Cooperation Treaty. BPC “activated” the patent in the United States -- on June 30, 2019 it filed for a patent in the United States (written in English). A few months later (in August of 2019) BPC sold its first holographic projector in the U.S. The BPC patent application was published on December 31, 2019, and describes how to make and use the holographic projector in great detail.

In May of 2018, Force Field Dynamics (“FFD”) sold the first “lifelike force generator” in the U.S., and had sold 1000 units by June of 2019. FFD had the only force generator on the market until June of 2020. The force generator emits a “force field” that is programmable and remarkably lifelike. For example, with the proper programming the generator can create a “force fist” to simulate boxing, or a “force hand” that can pick up “force forks,” “force knives” and “force spoons.” One of the most impressive feats of the generator is the “force treadmill” which automatically senses where a person is in a virtual landscape, and allows the person to walk, run, hike, climb, swim, or otherwise move through an invisible but seemingly infinite landscape

without ever changing physical position more than a few feet. The force generator manual suggests that users develop some way to create visual “marks” in the force field so that people do not run into invisible walls and break their noses, for example. The manual does not describe how this can be done, though detailed instructions are provided about how the force generator can be connected to a computer for programmatic control.

Pat Holder first learns of the lifelike force generator in June of 2018 and buys one of the first units. That same month, Holder hears of the holographic projector and flies to Japan to buy a Japanese unit from the Japanese grey market (complete with instruction manual written in Japanese) that Holder brings to the U.S. Between June of 2018 and December of 2018, Holder experiments with different computer programs in an effort to link the holographic projector with the force generator. On December 30, 2018, Holder completes a prototype unit. On January 1, 2019, Holder produces a website that says the following:

Coming Soon: The amazing Holographic Room! Holder Enterprises has created a room that produces images so lifelike that you will think they are real! Submit pricing and technical inquiries to pat@phe.com.

Pat receives hundreds of inquiries asking for pricing and technical details, and takes that as a sign that the product will be popular. Pat develops the prototype into a commercial version, and starts responding to inquiries in June of 2019. Pat sells the first holographic room setup on July 1, 2019.

On Jan. 2, 2020, Pat files for a U.S. Utility Patent. The specification is as follows:

I have invented a holographic room, which is heretofore uninvented, and not even imagined. The invention consists of the mounting of one or more holographic projectors, and one or more force field generators within a room, and software that combines the projectors and generators. In my preferred embodiment, I use the holographic projector from BPC, and any force field generator will suffice. If the force field generator has a “force treadmill” then any size space, including the outdoors, may be simulated in the room. Any programmer with skill in the art can create the appropriate software.

The initial application includes one claim:

1. A holographic room, comprising

at least one holographic projector, and

at least one means for force field generation.

During prosecution, the patent examiner rejects this claim as indefinite, because it does not include an element connecting the projector to the generator. Holder amends claim 1 to read:

1. A holographic room, comprising

at least one holographic projector,

at least one means for force field generation, and

software sufficient to coordinate holographic images generated by said projector(s)
with force fields generated by said generator(s).

Holder's application is published in July of 2021 and issues as amended on December 21, 2024, in the '123 patent.

In the meantime, Warfare Simulations, Inc. ("WSI"), a company that first opened in 2010, prides itself on realistic warfare simulation. WSI has never heard of Pat Holder and has never seen the '123 patent. The BPC holographic projector and the FFD lifelike force generator have opened up new worlds in warfare simulation. WSI begins work on realistic warfare simulations in May of 2018, being one of the first purchasers of the FFD lifelike force generator. Unfortunately, despite WSI's best efforts, when combined with the lifelike force generator, traditional projectors were simply not realistic enough for WSI's warfare simulation needs. Thus, work in earnest does not begin until August of 2019, when the BPC holographic projector hits the market. WSI eventually chooses to use a force field generator from one of FFD's competitors due to cheaper pricing. WSI completes a prototype on January 1, 2021.

In June of 2021, WSI introduces its new product: "Urban Warfare Simulation," which is an unassembled kit that can be installed in any building to simulate urban combat. The kit includes the BPC holographic projector, a (non-FFD) force field generator, and a software "design console" that allows the purchaser to program different environments for simulation, such as the type of interior, the contents of the interior, and enemies and/or civilians within the building.

Outdoor simulation proves to be more difficult to design, and WSI does not introduce its second realistic simulation product until June of 2023. This product is called "Jungle Warfare Simulation." It is identical to Urban Warfare Simulation, except that the projector(s) can now be mounted outdoors (on natural or artificial supports), and the software has been modified so that the purchaser can design a variety of outdoor combat "scenes" using an updated software "design console." Purchasers quickly discover that the "Jungle Warfare Simulation" is more flexible, because they can use the "force treadmill" features of the force field generator to simulate either indoor or outdoor (and even mixed) warfare with just one product.

Both kits come with free installation – no matter where in the world the product is shipped, a WSI representative assembles the product. Of course, the customer must develop the appropriate simulation "scene" using the software design console. Sales of each product prove wildly popular, and WSI earns \$20,000,000 on sales of 2000 units by December 31, 2024. Of

those sales, \$5,000,000 are for exports of unassembled Jungle Warfare Simulation kits. WSI representatives assemble the exported product overseas.

The press lauds WSI's genius in bringing such an important and creative product to market, and the primary customers (military and police forces) report that both simulation products provide far better training than any previous simulation product.

Pat Holder sues WSI and BPC for patent infringement on January 2, 2025.

Q1: You are counsel for Pat Holder. Please draft a memo describing the challenges to the validity of the '123 Patent that Holder should expect to see, and the responses Holder has to such challenges. You do not need to address unenforceability defenses in this memo. (50 points)

Q2: You are counsel for WSI. Please draft a memo describing what claims of infringement and remedies that WSI should expect to see, and the responses WSI has to such claims. Be sure to address any non-infringement and unenforceability defenses. (35 points)

Q3: You are the clerk to a U.S. Federal District Judge. BPC has filed a motion to dismiss claims against it based on non-infringement of the holographic projector due to sales to WSI. Please draft a bench memo for the judge describing the substantive patent law that applies to BPC's motion, and provide the judge with your opinion about how to resolve the motion and why. (7 points)