Comments On The Detailed Description (DD) Drafting Assignment

I. General

A. Everyone is really making the effort here and it shows. Thanks for all your hard work!

B. Writing the Detailed Description (DD) is not as purely creative as claim drafting, but it's long and grinding and you have to be precise and very , very thorough – remember that you will NEVER have a chance to supplement your disclosure. With the DD, you are aiming for completeness and stocking your arsenal with every potential claim limitation that you may need to fall back on.

C. The present invention disclosure is designed to have several issues that arise frequently in practice. There are gaps and there are aspects of the disclosure that are fine for the inventor's purposes, but not satisfactory for yours. It's not designed to be the easiest thing in the world to write. It is designed to try and get you to think and stretch. I think that a number of people are beginning to rise to the challenge and start recognizing and filling in gaps. This invention is about a 5 on a difficulty scale of 1-10 and should be pretty representative of what you might encounter in practice.

D. I did not mark every error every time – some repeated errors were numerous. Consequently, just because it's not marked doesn't mean its right. If one instance is marked, check your DD for others.

II. Things to think about

A. It sure helps to have a plan of attack (ICOA), right?

B. Now that you have written the DD, you would probably have asked the inventor many additional questions during the inventor interview, right? It was only when you got really into writing the DD that you realized that you might not have some needed information. What questions would you ask? How can you be better prepared next time? Always do this process. - Advice - Read the invention disclosure more thoroughly/aggressively – at the data level - before the inventor interview and recognize the weak points of the disclosure so that you could question the inventor more specifically? More specific and exacting knowledge of the control aspects of the innovation so that you can recognize what you don't know sooner? - Mentally form an overall "data flow" of how you think the application will go when you read through the invention disclosure the first time and then ask questions to flesh out it out.

C. Recognize the importance of figures. You are really crafting your disclosure around the figures. Consequently, the first step is to try to figure out the point of novelty, then figure out what you have to show in order to enable it, then think about what figures you would like to use for that enabling disclosure. Also, the ORDER of the figures can make a big difference in making your explanation understandable to the Examiner or a jury.

D. Recognize that when you discuss a Figure, it can be overwhelming if you attempt to discuss every aspect of its functionality at once. However, you can walk through a simple embodiment or function and then come back to explain more complicated aspects. Possibly with a series of flowcharts.

E. Now that you have written a complete DD:

1. What problems did you catch during your writing?
2. How would you have structured your DD differently?
   If you had to start over, would your first figure be the same?
   Recognize that you can start with a simple overview figure and then "drill down" by adding more data elements and complexity in later Figures.

F. Would you have picked different claim terms after your wrote the DD? Did you then take the time to modify your claims and go with the new claim terms? Don't let your initial claims lock you into a bad disclosure.

G. Do you have a different idea about what "the invention" actually is?

III. Formalities

A. Clarity/Readability

1. If your specification is unclear, the Examiner does not put in extra effort to understand it – they just reject you under 112(a) for claiming subject matter not disclosed in your specification in order to force you to show in your specification where the subject matter occurs. Of course, if the section you point to in the specification is still unclear, then the Examiner maintains their rejection – and you lose all rights. Thus, your specification really needs to be clear!
2. Adding some structure to your discussion is helpful. For example, have an intro sentence that mentions something like "The system has 3 states A, B, and C, each of which will be further discussed below. Then, start each successive paragraph/section with "In the first state A …", "In the second state B …", "In the third state C …". This helps provide your reader with some understandable structure to your discussion.

3. AVOID -

- Bouncing around between system elements or figures without clarifying when you change context. For example "Returning now to the AMR XXX of Figure 3, …" is helpful to the reader if you are changing figures
- Bouncing around in time order without providing context. For example: "Returning to when the vehicle retrieval signal is first received by the AMR from the server …." is helpful.

4. Use paragraph breaks to separate concepts and increase readability. Don't just have a block paragraph that goes on for pages – especially when you are talking about several functions.

5. Increase readability by using concept joiners like "also", "additionally", "Thus", and "Consequently" to connect your concepts rather than just reciting bullet points. Also, link to earlier and later figures that describe the elements that you are referencing in more detail. "As described further below with regard to Figure X". "For example" is also effective
- It is dangerous to reference other paragraphs by number (e.g., "as discussed in paragraph 74") because sometimes the PTO changes the paragraph numbering.

B. Recite embodiments using positive, but not limiting language.

No="The X needs …", "entire", "must be", "all X"

Other danger words - all, necessary, all the possible, every data, needed, any

C. When drafting, ignore the number grammatically. That is, always include the "the" in "the first sensor 120" – not just "sensor 120 does X."
- This also means that you can't have "the sensor 120" and "the sensor 130" because they are indistinguishable. Instead include a differentiator in the term like "first sensor" vs. "second sensor"
- This can get really confusing if you just write "data/signal" or "the data/signal" instead of naming each data element something different.

- It is also often unclear when you name two different elements as a subset of each other – instead include a clear differentiator. For example, don't recite "control data" as a first element and then "current control data" as a second element. Instead differentiate the names using something like " initial control data" vs. "current control data"

D. Try to keep sentences short with clear subject and predicate. Avoid pronouns like "it does x" – just repeat the noun.

E. Drawings

- Pencil drawings are OK! They just need to be legible.
- All letters and numbers must be at least 1/8 inch
- Margins of at least 1 inch
- Figures "A, B" – Examiners often don't like and will cause you to re-number
- Lead lines must not be straight (confuse with structures)
- For official drawings, no attorney docket #s or page #s
- Preferred to .pdf your figures – Word does not always display correctly
- Watch out when re-drawing the inventor's figures – ALL content should be carried over. Arrows representing the direction of communication are also content. It is often better to modify the inventor's figures rather than re-draw.
- Limit a flowchart to a single operation – put the new operation in a different flowchart

F. When a device includes several functions, breaking each function into its own flow chart can greatly increase clarity and your understanding of the function.

G. Remove Cross-Reference to Related applications if not needed.

H. Figures

- No page numbers/attorney docket numbers on Figures.
- Often best to submit in a separate .pdf document so that it does not mess up the spec's page numbering

- Remember that the font size in the figures should be at least 1/8 of an inch. Typically this is a minimum of 14-point font.

- With regard to numbers in the figures, can only underline numbers that appear on top of the element that they indicate. Numbers with a lead line should not be on top of any element.

IV. Not Getting Where You Want To Go

A. Not A Disclosure

-We need an affirmative, explicit disclosure if the Examiner is going to allow us to incorporate a term in the spec into the claim.

-BAD: "will" "would" "can" "could" "possibility" "should" "intended to" "One alternative embodiment could be …" (as opposed to IS) Use "may" instead of "can"

- Not Affirmative. Does not illustrate that we had the necessary possession of the invention to meet the written description requirement.

- Also not disclosure – "any of a variety of ways", "May be any number" "could be greater or lesser" "this is just one example" – it is the only one that you disclose, so it is the only one that you can CLAIM! You can disclose other examples and ranges, though.

- Very questionable disclosure - "exists" or "creates" – unless you enable how the creation takes place – also "based on" or "generates" or "does X according to"

- "Not limited to" is not a disclosure – nothing is limiting unless you say it is limiting.

B. When you recite that something happens, you must recite HOW it happens, not just the end results. If data is displayed, where did that data come from? How did that data know to be transmitted? How was that data determined?

– What are the functional and structural aspects that ENABLE the thing?

- No - "At a predetermined time", "allows a determination to be made", "it is processed", "the computer implements", "is associated with" (at least without enablement of HOW)
- Often need to retrieve some specific data or make some specific determination – recite those machine steps so that they can be claimed
- Warning Flag – watch out for the passive voice – it could be a warning sign - "X allows selections to be made"

– May be OK for claims, not spec. Spec must ENABLE.

- Warning Flag -"fudge words" – if you see them, look closely to see if you are really disclosing – Examples "based on", "processes", "a certain X"

No enabling disclosure –

- "Within a predetermined radius"

(Need examples)

-"a venue"

(From a data point of view, this could be a set of GPS coordinates

- Avoid any language that sounds like a human determination.

In general any human cognitive or emotional result is likely not an enabling disclosure/ needs to be defined in the spec: "associated with", "affiliated with", "compiles", "in conjunction with", "monitoring" "assigns", "needs", "intrude", "collected"

- Remember that we can't claim a user, so when there is a user-machine interface, write from the machine side.

No: "When the user presses a button on the interface…"

Yes: "When the button is activated on the interface…"

Or: "When data is received from the graphical user interface indicating that contact has been detected in the region graphically identified as button A …"

C. Don't use legal or claim terms in the DD

-No "said" or "plurality"

May not actually be a disclosure in the DD

- NO "consist"

- NO "via" (can actually mean either "using" or "through")

D. Data element vs. its contents

- "transmit location" vs "transmit location data"

– can only transmit/store data, not the location itself

- Name of data element vs. what it represents – name alone is not enough, you must describe what the data itself represents

-The "data" is the package that stores the "value"

no = "camera senses an obstacle"

-camera can only record images – images are then sent to a processor

E. "Computer program", "application", "instructions" are not claimable under 101.

-Instead, note that the computer program causes the processor/device/server to do something – claim what the processor does.

- If "instructions" are meant to be a series of steps carried out by a processor, recite those steps.

F. What is "autonomous driving"? (avoid slang)

"executes a program"

G. "user interface" VS. "display" or "screen"

-"display" or "screen" – are one-way, output only

- User interface is 2-way (allows input – data or control)

V. Advice and Feedback

A. Data structure.

- Most students seemed to correctly identify where certain data would be stored in which memory. However, there was sometimes no enablement of what the data actually represented, how the data got there, or how the data was used in one or more processes. All are needed for enablement.

B. Use of Flowcharts- can really help with your understanding when students are rigorous with reciting each step in a flowchart.

- Don't try to take shortcuts and write multiple functions in a single flowchart – it usually ends up being jumbled and unclear.

-One good piece of advice is to think and write at the "data/data structure" level rather than the "conceptual/user" level. Or, alternatively, if you write first at the conceptual level for ease of explanation, then go back and recite <u>how a machine accomplishes</u> each of the conceptual items that you have written – so that we can claim it.

C. One good way to make sure that you have recited and enabled the process is to go through an actual hypothetical example

-Actually go through an example of the process of where a car is registered or a user requests their car

D. Generalized advice – when you feel that something is being fudged and it is uncomfortable/unclear, <u>charge it head on and write something that seems to cover the ground</u>. If nothing else, it makes the issue more apparent for the inventor to review so that they are likely to catch it before you file – you can also highlight it for their review. This is the opposite of the typical "school" instinct of attempting to hide it or gloss over it. Recognize that if you actually succeed in hiding it or glossing over it, you have probably shot yourself and your client in the foot.

- Also, the use of "human action" language or "outcome/result only" language is a very highly probably indicator that something is being fudged.

E. Claims – Claims need a lot more work in most cases. Need to focus on a specific point of novelty – no need to recite the entire invention.

F. Several of the applications had some nice features:
-Some DDs had a nice feature or two that did not appear in other DDs.
- Feel free to review the DDs of other students– you can adopt strategies, phraseology, and even whole figures from other students, you just have to write/type it in yourself – not copy/paste. This is required because making you type it in embeds the wording and process better in your memory and makes you more able to repeat the task when called on to do so in the future. To put it another way – typing it in yourself (and drawing the figure yourself) is really the only way that you learn.

VI. Disclosure questions/issues

A. <u>You Must Disclose the Preferred Embodiment!</u>
The spec should disclose your preferred embodiment. The language used should be specific. Specific examples of the thresholds and what happens should be mentioned. This language should be WAY more specific than your claim language (<u>broader claim language can be included as an alternative</u>). The objective of the spec is to ENABLE the specifics of the actual invention.

B. Remember – Everything the inventor gives you should go in the DD
-Include the inventor's (better) views for the Sherpa Hut – in addition to your present disclosure. Only need to identify the components shown in those drawings and then refer to your previous, more specific figure. A picture is worth 1,000 words and you never know if some minor detail might be useful.

C. Include the user interfaces – and then explain how all of the data got there/ how they are used, and how all of the "buttons" work.

Next Assignment - Full Patent Application Ready to File! and completed Filing Paperwork

This is the full patent application, including all sections and complying with all PTO requirements

A. Due date –April 3rd, by the Start of class (3pm)

B. Draft

1. Background
2. Summary
3. Brief Description of Drawings
4. Abstract
5. Add Validation section to DD

C. Revise

1. Claims

   Know that when you turn in the full patent application at the next assignment, the claims will be your official claims just as if you had filed them at the PTO. If there is a problem with the claims, then expect a summary rejection from the PTO. We are going for realism and will be as picky as the average Examiner (which is very picky) who is looking for an excuse to reject you.

2. Detailed Description (DD)

   All shortcomings in the DD are fair ground for rejection

3. Figures

   Must comply with PTO standards as discussed in class

D. Grading

1. When grading the whole application, approximately 60% of the grade will be based on the new sections and 40% of the grade will be based on the DD and claims. Consequently, amend your DD and/or claims to improve them.

E. Fair Warning!

You will be stuck with the patent application that you turn in for the remaining two office actions. Consequently, make sure that the DD includes everything that you think you might need.

F. **Completed filing paperwork (Also to be sent to Laura –discuss delay)**

As a "class participation" assignment, complete the following filing documents for your patent application. The documents are available electronically at the PTO's website or may be printed out from the class materials and filled in by hand. The filing documents should conform to your actual patent application. For example, the fee calculation should reflect your actual number of claims and the attorney docket number should be your secret code. All documents must include everything necessary for them to be accepted by the PTO.

1. ADS
2. Fee transmittal
3. Declaration
4. Power of Attorney (and any other documents needed)
5. IDS

Your attorney number and your signature are your secret code. Your correspondence address is the law school's address and your firm name is Pat, Ent, & Win. The filing date for the application is April 3rd – the date you will be submitting the application to me (really Laura by e-mail) as the PTO.