

Form A • IPGuru the platform keeps the record

Lab 4: from a project brief to a grounded, tested and positioned idea

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PART 4, GROUND · CLASSES 10 TO 12 · 60 TO 90 MINUTES · YOUR OWN IDEA

0 to 10 **Turn the research plan into briefs with limits on them.** Take the research plan you wrote in Lab 1 and the checks list from Lab 2. Choose the two questions that hold the idea up and write each as a brief: the one question, the sources you will trust, what would count as an answer, how long it gets, and that inconclusive is an allowed result. Write a third brief only if both are done. Park the rest where the next reader can find them.

In IPGuru: Scenario research and knowledge: write the research brief in the Scenario Director, with its outcome, sources, success criteria and limits, then start it.

10 to 30 **Run one brief properly, and the second if the time is there.** Run the first brief to its limit, opening the sources yourself. Write each finding as four things: the title, the source and its date, and the one sentence that matters, in your own words. Then check: did any two sources answer the same question differently? Write what you found, including none. If a brief ends with nothing found, write what you searched and what you did not find, and call it inconclusive. A brief you did not reach is preparation for next week, not a failure.

In IPGuru: Scenario research and knowledge: grounded search with citations; save each finding as a source note and place it on the knowledge map against the line it backs.

30 to 40 **Mark the standing of every claim on your record.** Go down your concept line by line. Mark each claim backed, still open, or answerable only by a test. A backed claim names its source. An open claim names what would settle it. A testable claim is the start of the next step. Any claim you cannot mark at all is a claim you have never actually made.

In IPGuru: Source material and the record: attach each source to the claim it backs and read the evidence level down the record.

40 to 50 **Write one hypothesis that could come back false.** Take the load-bearing assumption that reading could not settle. Write it as a prediction with a direction and, where you can, a quantity. Then write the single observation that would make you abandon it. Then write what you would do in each case. If nothing changes either way, choose a different assumption.

In IPGuru: The Register: the assumption, the prediction and the disconfirming observation recorded as one open item.

50 to 62 **Design the smallest test that could return that observation.** Choose the cheapest step that could still produce it. A calculation that rules the design out settles the question as firmly as a bench run; building the whole thing tests everything at once. Then design it: what is measured, against what, under what conditions, how many times. If any version of the test could hurt

somebody, redesign it, hand it to someone qualified, or do not run it, and write the reason.

In IPGuru: The Register and Research and knowledge: the test design recorded beside the hypothesis it belongs to.

62 to 70

Write the experiment log entry as a design. Five parts: the question, the method, the result, what it settles, what it does not. In the session the result line stays empty, and the entry carries a date and a named person, so the gap is a booking rather than an intention. Running the test is fieldwork and is the optional step at the end of this sheet.

In IPGuru: Research and knowledge: record the experiment as a source note with its method, and attach it to the claim it backs so it stands beside the citations.

70 to 80

Map the landscape, and record the workaround your person actually uses.

Write down what is on sale today and what its users complain about, anything you can find that was tried and stopped and why, and what your person does today instead. Record the actual workaround: paid help, an adaptation of how the job is done, a partial fix, or nothing at all. Doing nothing is one possible answer and a comparator to investigate, not the default. Then write one line: what my idea must beat, what it only has to match, and what it must avoid.

In IPGuru: Prior-art research: the landscape and state of the art run, with what is on sale and what has been tried returned as a report.

80 to 90

Search, name the closest thing so far, and write what the search could not tell you. Search on the function and the mechanism, not on your name for it, in your own field first and then in the synonyms and the neighbouring fields. Read the nearest document you find for what it teaches, not only for what it claims, and note its date and whether it has expired. Name the closest thing you have found so far and the reason it is the closest, and say whether it is one document or a category. Then write what your search could not tell you.

In IPGuru: Prior-art research runs: the search with its query, summary and references saved to the record, then the closest thing named by hand.

optional, 90 to 100

Run the test, and extend the search. This step is fieldwork and is not done in the session. Run the test you designed and fill in the result line, including the runs that went wrong. Read the other two or three nearest documents, and finish any brief you did not reach. What it adds: one claim on the record stops being a plan and becomes a measured result, and the closest thing is named against documents rather than against memory. How to record it: the date, what was measured or searched, and which line on the record it moved. A test that comes back inconclusive is a result, and so is a search that finds nothing nearer.

In IPGuru: Research and knowledge: add the result to the experiment source note, and rerun the prior-art search with the extended terms.

FINDINGS WITH CITATIONS title, source, date, and the sentence that matters

DID TWO SOURCES ANSWER THE SAME QUESTION DIFFERENTLY what you found, including none

ANY BRIEF THAT ENDED INCONCLUSIVE what was searched, and what was not found

CLAIMS MARKED BACKED each with the source under it

CLAIMS STILL OPEN, AND CLAIMS THAT NEED A TEST with the settling act beside each one

ONE HYPOTHESIS as a prediction, with a quantity where you can

ITS DISCONFIRMING OBSERVATION the result that would make you abandon it

THE TEST DESIGNED measured, against what, under what conditions, how many times

THE SAFETY DECISION redesigned, handed over, or not run, and why

THE EXPERIMENT LOG ENTRY question, method, result, what it settles, what it does not

THE LANDSCAPE on sale, tried and stopped, and the workaround your person actually uses

BEAT, MATCH, AVOID one line each

THE CLOSEST THING SO FAR, NAMED the reason it is the closest, and whether it is a document or a category

WHAT ITS DOCUMENT TEACHES, AND WHAT IT CLAIMS the two readings, kept apart, with the dates

WHAT THE SEARCH COULD NOT TELL YOU written down, so the silence is not read as a clear result

OPTIONAL, OUTSIDE THE SESSION: THE TEST RUN AND THE SEARCH EXTENDED the result line filled and dated, or the reason it was not

Artefact: the evidence pack. Two or three briefs with their limits, findings with citations, the disagreement check with what it found, any brief that ended inconclusive with its search written out, every claim marked backed, open or testable, one hypothesis with the observation that would kill it, one test designed with its safety decision, one experiment log entry including what it does not settle, the landscape with the recorded workaround as the incumbent, the closest thing so far with the reason it is closest, and what the search could not tell you. The last step is fieldwork, is optional, and is done outside the session. The platform keeps the record; export the research findings, the search report and the source notes at the end and attach them to this sheet. Nothing here is a clearance and nothing here is legal advice.

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ANY ASSISTANT

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0 to 10 **Turn the research plan into briefs with limits on them.** Take the research plan you wrote in Lab 1 and the checks list from Lab 2. Choose the two questions that hold the idea up and write each as a brief: the one question, the sources you will trust, what would count as an answer, how long it gets, and that inconclusive is an allowed result. Write a third brief only if both are done. Park the rest where the next reader can find them.

Prompt: "Here is my question. Before searching, write it as a bounded brief: the question, the sources you would trust, what would count as an answer, and a limit." You choose which questions get a brief.

10 to 30 **Run one brief properly, and the second if the time is there.** Run the first brief to its limit, opening the sources yourself. Write each finding as four things: the title, the source and its date, and the one sentence that matters, in your own words. Then check: did any two sources answer the same question differently? Write what you found, including none. If a brief ends with nothing found, write what you searched and what you did not find, and call it inconclusive. A brief you did not reach is preparation for next week, not a failure.

Prompt: "Answer this brief and give me the source, the date and the sentence that matters for each finding." Open the sources yourself before you keep any of them.

30 to 40 **Mark the standing of every claim on your record.** Go down your concept line by line. Mark each claim backed, still open, or answerable only by a test. A backed claim names its source. An open claim names what would settle it. A testable claim is the start of the next step. Any claim you cannot mark at all is a claim you have never actually made.

Prompt: On paper: three columns, backed, open, needs a test, and every claim in one of them with its source or its settling act beside it.

40 to 50 **Write one hypothesis that could come back false.** Take the load-bearing assumption that reading could not settle. Write it as a prediction with a direction and, where you can, a quantity. Then write the single observation that would make you abandon it. Then write what you would do in each case. If nothing changes either way, choose a different assumption.

Prompt: "Turn this assumption into a prediction with a quantity, then write the result that would make it false." You write the two decisions that follow.

50 to 62 **Design the smallest test that could return that observation.** Choose the cheapest step that could still produce it. A calculation that rules the design out settles the question as firmly as a bench run; building the whole thing tests everything at once. Then design it: what is measured, against what,

under what conditions, how many times. If any version of the test could hurt somebody, redesign it, hand it to someone qualified, or do not run it, and write the reason.

Prompt: "What is the smallest test that could return this observation, and what would it have to measure and compare against?" You choose the step and write the conditions.

62 to 70

Write the experiment log entry as a design. Five parts: the question, the method, the result, what it settles, what it does not. In the session the result line stays empty, and the entry carries a date and a named person, so the gap is a booking rather than an intention. Running the test is fieldwork and is the optional step at the end of this sheet.

Prompt: On paper: five headings, question, method, result, settles, does not settle. The last heading is the one people skip and the one that stops a result being over-quoted later.

70 to 80

Map the landscape, and record the workaround your person actually uses.

Write down what is on sale today and what its users complain about, anything you can find that was tried and stopped and why, and what your person does today instead. Record the actual workaround: paid help, an adaptation of how the job is done, a partial fix, or nothing at all. Doing nothing is one possible answer and a comparator to investigate, not the default. Then write one line: what my idea must beat, what it only has to match, and what it must avoid.

Prompt: "What exists on the market for this problem, what has been tried and abandoned, and what do people do or pay for instead?" You write the beat, match, avoid line yourself.

80 to 90

Search, name the closest thing so far, and write what the search could not tell you. Search on the function and the mechanism, not on your name for it, in your own field first and then in the synonyms and the neighbouring fields. Read the nearest document you find for what it teaches, not only for what it claims, and note its date and whether it has expired. Name the closest thing you have found so far and the reason it is the closest, and say whether it is one document or a category. Then write what your search could not tell you.

Prompt: "Search for prior work on this function and this mechanism, in patents and in published literature, and list the closest documents with their dates." You choose the closest thing and write the reason.

optional,

Run the test, and extend the search. This step is fieldwork and is not done in the session. Run the test you designed and fill in the result line, including the runs that went wrong. Read the other two or three nearest documents, and finish any brief you did not reach. What it adds: one claim on the record stops being a plan and becomes a measured result, and the closest thing is named against documents rather than against memory. How to record it: the date, what was measured or searched, and which line on the record it moved. A test that comes back inconclusive is a result, and so is a search that finds nothing nearer.

Prompt: On paper: fill the result line on the log entry, date it, and add the documents you read with what each one teaches.

THE BRIEFS question, sources allowed, what counts as answered, the limit

FINDINGS WITH CITATIONS title, source, date, and the sentence that matters

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DIFFERENTLY what you found, including none

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