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FICPI AI Patent Drafting Masterclass

16 September 2026

Corinthia Hotel, Budapest, Hungary

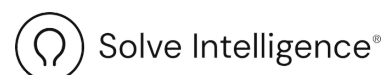
Exercise Materials: ICT



120
YEARS

SINCE 1906

COURSE SPONSORS



COMPUTER-IMPLEMENTED INVENTIONS

AFTERNOON DRAFTING EXERCISE

Intelligent form completion — amendment exercise

DELEGATE NOTES

DELEGATE NOTES

This section contains instructions for delegates.
Circulate with the draft application and client letter.

Purpose

This exercise is about learning to use your AI drafting tool on a computer-implemented invention. It is not specifically about the technology, and there is no single right answer for how the claims should be drafted.

You will be given a completed draft patent application, and a letter from the client adding one further feature. The task is to incorporate that new feature into the draft using your tool, and then review the result.

There is no right answer.

What you get, and when

Before the workshop: the draft application — specification, claims and drawings. Please read it. It relates to an intelligent electronic form completion system.

At the start of the exercise: a letter from the client describing a new feature called the adaptive suggestion feature. It contains everything you need.

You will have 50 minutes, working with your own AI drafting tool.

What to do

Using your tool, work the client's new information into the draft. That is likely to mean:

- adding description of the adaptive suggestion feature and the Adaptation Engine;
- drafting a new figure (FIG. 3) showing how user responses feed back to update the suggestion policy, and writing its legend;
- amending or adding claims to cover the adaptive suggestion feature;
- updating the summary and anything else in the description that has to match.

Then review the result. Does everything still fit together — figure numbering, claim dependencies, terminology? Has the tool added anything the client did not actually say?

Then discuss

Compare notes with the others: where the tool helped, where it went wrong, and what you had to correct yourself.

FICPI AI Patent Drafting Masterclass

Draft Patent Application — Amendment Exercise

Computer-Implemented Inventions

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ADVANCE READING

Prepared for workshop use. Follow the circulation instructions in this document.

System and Method for Generating Electronic Form Completion Suggestions

FIELD OF INVENTION

[0001] The present disclosure relates to computer-implemented systems and methods for generating suggested values for fields of an electronic form based on relationships between fields and historical form data.

BACKGROUND

[0002] Electronic forms are widely used in websites, enterprise applications, customer relationship management systems, healthcare portals, government portals, and online purchasing systems. Such forms may require a user to enter information into numerous fields, many of which are repetitive or correlated with one another. Conventional auto-complete functionality may recall previously entered values for an individual field, but does not use relationships between multiple fields to assist the user in completing an entire form. Accordingly, there remains a need for improved techniques for assisting users in completing electronic forms while maintaining user control over entered information.

SUMMARY

[0003] According to an aspect of the present disclosure, a system comprises one or more processors and one or more memories storing instructions that, upon execution by the one or more processors, cause the system to: receive, through an electronic form interface, a first value entered for a first field of an electronic form; identify, based on historical form records, a relationship between the first field and a second field of the electronic form; query the historical form records, constrained by the first value and the relationship, to retrieve a result set containing values associated with the second field; determine, based on the result set, a suggested second value for the second field before user entry of a value for the second field; present, through a suggestion interface, the suggested second value for acceptance, rejection, or modification by a user; and store response data associated with a user response to the suggested second value. According to a further aspect, a computer-implemented method and a non-transitory computer-readable medium are provided for performing corresponding operations.

[0004] In some embodiments, the relationship may comprise a relationship between a postal code field and at least one of a city field or a province field, or between a company name field and at least one of an industry classification field or a company size field. The system may generate candidate

values from the historical form records and rank the candidate values using a confidence score to select the suggested second value. The system may store the result set or an intermediate aggregate derived from the result set so that a later suggestion for the same first value or the same relationship is generated from the stored result set or intermediate aggregate without re-querying the historical form records.

- 5 The response data may identify whether the user accepted, rejected, modified, or ignored the suggested second value, and accepted or modified values may be stored for later use.

BRIEF DESCRIPTION OF FIGURES

[0005] FIG. 1 is a system diagram of an electronic form completion system including suggestion generation components.

- 10 [0006] FIG. 2 is a flowchart of a method for generating suggested values for an electronic form.

DETAILED DESCRIPTION

System Overview

- [0007] Referring to FIG. 1, an electronic form completion system 100 comprises one or more processors and one or more memories storing instructions that, upon execution by the one or more processors, cause the system to perform the operations described herein. The instructions may be stored on a non-transitory computer-readable medium. The electronic form completion system 100 further comprises a user device 102, an electronic form interface 104, a suggestion interface 106, a relationship engine 108, a prediction engine 110, a historical data repository 112, and a completed form record 114. The user device 102 may be a browser or client application through which a user accesses an electronic form. The electronic form interface 104 presents active form fields and receives values entered by the user. The suggestion interface 106 presents suggested values and receives user responses, such as acceptance, rejection, or modification of a suggested value.
- 15
20

- [0008] The prediction engine 110 receives entered values from the electronic form interface 104 and communicates with the relationship engine 108 to identify field correlations. The historical data repository 112 stores previously completed forms and associated field values. The prediction engine 110 queries the historical data repository 112 to generate candidate values for uncompleted fields and ranks the candidate values to select a suggested value. Response data generated at the suggestion interface 106 is provided to the historical data repository 112. A completed form record 114 stores field values after submission, and accepted or modified values may update the historical data
- 25

repository 112 for use in subsequent suggestion generation, as indicated by the dashed feedback path in FIG. 1.

Method of Operation

[0009] Referring to FIG. 2, a method 200 for generating suggested values begins when the system receives an entered value, such as a postal code or company name, through the electronic form interface 104 (step 202). The relationship engine 108 identifies related fields based on form schema, field labels, or historical co-occurrence of values (step 204). The prediction engine 110 then queries the historical data repository 112, constrained by the entered value and the identified relationship, to retrieve a result set containing values associated with the related fields (step 206). Because the query is constrained by the identified relationship, the prediction engine 110 retrieves matching records that are more likely to contain useful values for the second field, rather than searching all stored form records without regard to field relationships; this narrowing reduces the processing burden on the system and improves the relevance of the resulting suggestions.

[0010] From the retrieved records, the prediction engine 110 generates candidate field values for one or more uncompleted fields (step 208). The prediction engine 110 ranks the candidate values using a confidence score based on occurrences of each candidate value among historical form records having a field value related to the entered value (step 210). The system then displays the top-ranked suggestion to the user through the suggestion interface 106, which may present the suggestion inline, in a dropdown, or in a panel (step 212). A suggestion may be presented when the first field is completed, when a subsequent field receives focus, or after further values have been entered.

[0011] The user may accept, modify, reject, or ignore the suggested value. When the suggestion is accepted or modified (step 214), the system populates the form with the resulting value and stores it as part of a completed form record 114. When the suggestion is rejected or ignored (step 216), the system stores response data indicating the user's response. The stored response data may be used to evaluate the effectiveness of suggestions over time.

Relationship Identification

[0012] The relationship engine 108 may identify relationships between fields using one or more sources: a form schema identifying field groupings, validation rules, or dependencies; field labels indicating semantic relationships; or observed co-occurrences of values in historical form records. When using co-occurrence, the relationship engine 108 may identify historical form records containing

the entered value, identify the values appearing in a candidate related field within those records, and determine how often each identified value appears with the entered value to give a co-occurrence score. The co-occurrence score may be normalised by a reference count, such as a total number of historical form records containing the entered value or a total number of historical form records for the electronic form. The relationship engine 108 may compare the co-occurrence score to a relationship threshold and treat the candidate field as related to the first field only when the score satisfies the threshold. The identified relationships enable the prediction engine 110 to generate suggestions for multiple related fields based on a single entered value.

Candidate Value Generation and Ranking

[0013] The prediction engine 110 generates candidate values by extracting values from historical form records for fields identified as related to the entered value. The prediction engine 110 may normalise values to combine historical entries that represent the same information in different formats. Candidate values are ranked using a confidence score, which may be based on occurrence frequency, recency, and context matching, where context matching refers to a correspondence between the historical form records and the current electronic form, such as a common form version, tenant, or workflow. The ranking factors may be combined using a weighted sum, rule-based ordering, threshold comparison, or model output. A candidate value satisfying a confidence threshold is selected as the suggested value; if no candidate satisfies the threshold, the system may refrain from presenting a suggestion. The prediction engine 110 may store or cache a result set or an intermediate aggregate so that later suggestions for the same entered value or the same relationship are generated from the stored result set or intermediate aggregate rather than by re-querying the historical data repository 112, with reduced latency.

Worked Examples

[0014] Example 1. A user completing a customer registration form enters a postal code of M5V 2T6 in a postal code field. The relationship engine 108 identifies that the postal code field is related to the city field and the province field. The prediction engine 110 queries the historical data repository 112 and retrieves records in which the postal code M5V 2T6 appears. From these records, the prediction engine 110 extracts city and province values, ranks them, and presents “Toronto” and “Ontario” as suggested values. The user accepts both suggestions, and the accepted values are stored in the completed form record 114. Two related fields were thereby completed from a single entered value without requiring separate manual entry.

[0015] Example 2. A user completing a supplier onboarding form enters “ABC Manufacturing” in a company name field. The relationship engine 108 identifies that the company name field is related to an industry classification field and a company size field. The prediction engine 110 normalises the company name and queries the historical data repository 112 for matching records. The prediction engine 110 generates candidate values, ranks them, and presents “Manufacturing” and “50–100 employees” as suggestions. The user modifies the company size to “100–250 employees”, and the modified value is stored in the completed form record 114 together with response data indicating the modification. The original suggestion and the user’s modification were both preserved, enabling the system to distinguish accepted values from corrected ones.

[0016] Example 3. A user completing a procurement form enters a product type. The relationship engine 108 identifies that the product type field is related to a warranty terms field. The prediction engine 110 retrieves historical records containing the product type, extracts warranty terms values, and presents a suggested warranty term. The user rejects the suggestion and manually enters a different value. The system stores response data indicating the rejection, and the manually entered value is stored in the completed form record 114. The response data recorded the rejection, while the suggested value was not stored as a submitted value.

CLAIMS

1. A system comprising:
one or more processors; and
one or more memories storing instructions that, upon execution by the one or more
5 processors, cause the system to:
receive, through an electronic form interface, a first value entered for a first field of an
electronic form;
identify, based on historical form records, a relationship between the first field and a second
field of the electronic form;
10 query the historical form records, constrained by the first value and the relationship, to
retrieve a result set containing values associated with the second field;
determine, based on the result set, a suggested second value for the second field before user
entry of a value for the second field;
present, through a suggestion interface, the suggested second value for acceptance, rejection,
15 or modification by a user; and
store response data associated with a user response to the suggested second value.
2. The system of claim 1, wherein the instructions cause the system to store the result set or an
intermediate aggregate derived from the result set and generate a later suggestion for the same first
value or the same relationship from the stored result set or intermediate aggregate without re-
20 querying the historical form records.
3. The system of claim 1, wherein the instructions cause the system to generate candidate values
for the second field from the historical form records and rank the candidate values using a
confidence score to select the suggested second value.
4. The system of claim 1, wherein the response data identifies whether the user accepted,
25 rejected, modified, or ignored the suggested second value.
5. A computer-implemented method comprising:
receiving, by one or more processors, a first value entered for a first field of an electronic
form;
identifying, based on historical form records, a relationship between the first field and a
30 second field of the electronic form;
querying the historical form records, constrained by the first value and the relationship, to

retrieve a result set containing values associated with the second field;

determining, based on the result set, a suggested second value for the second field before user entry of a value for the second field;

presenting the suggested second value for acceptance, rejection, or modification by a user;

5 and

storing response data associated with a user response to the suggested second value.

6. The method of claim 5, further comprising generating candidate values for the second field from the historical form records and ranking the candidate values to select the suggested second value.

10 7. A non-transitory computer-readable medium storing instructions that, upon execution by one or more processors, cause the one or more processors to:

receive a first value entered for a first field of an electronic form;

identify, based on historical form records, a relationship between the first field and a second field of the electronic form;

15 query the historical form records, constrained by the first value and the relationship, to retrieve a result set containing values associated with the second field;

determine, based on the result set, a suggested second value for the second field before user entry of a value for the second field;

present the suggested second value for acceptance, rejection, or modification by a user; and

20 store response data associated with a user response to the suggested second value.

8. The non-transitory computer-readable medium of claim 7, wherein the instructions cause the one or more processors to store an accepted value or a modified value as part of a completed form record.

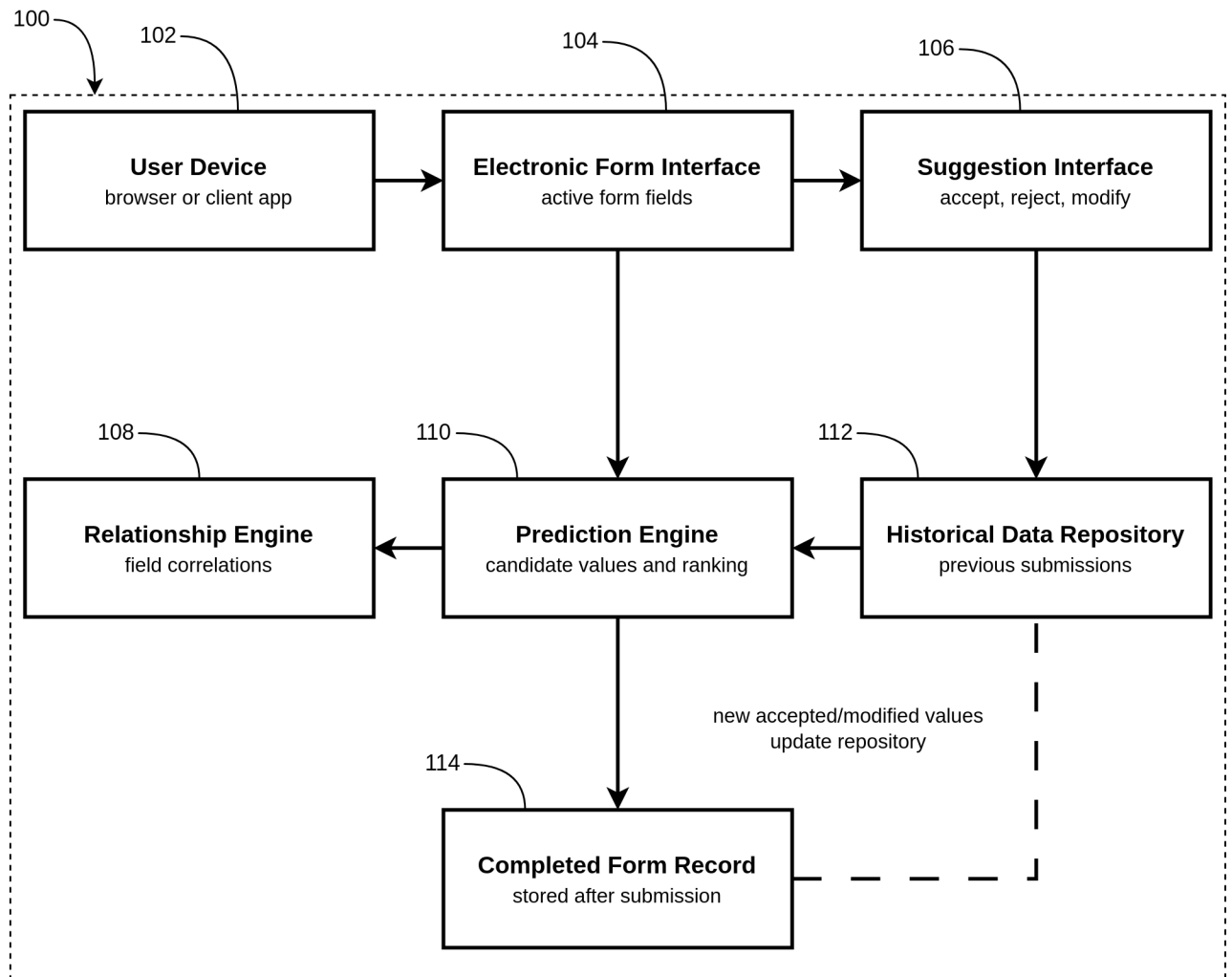


FIG. 1

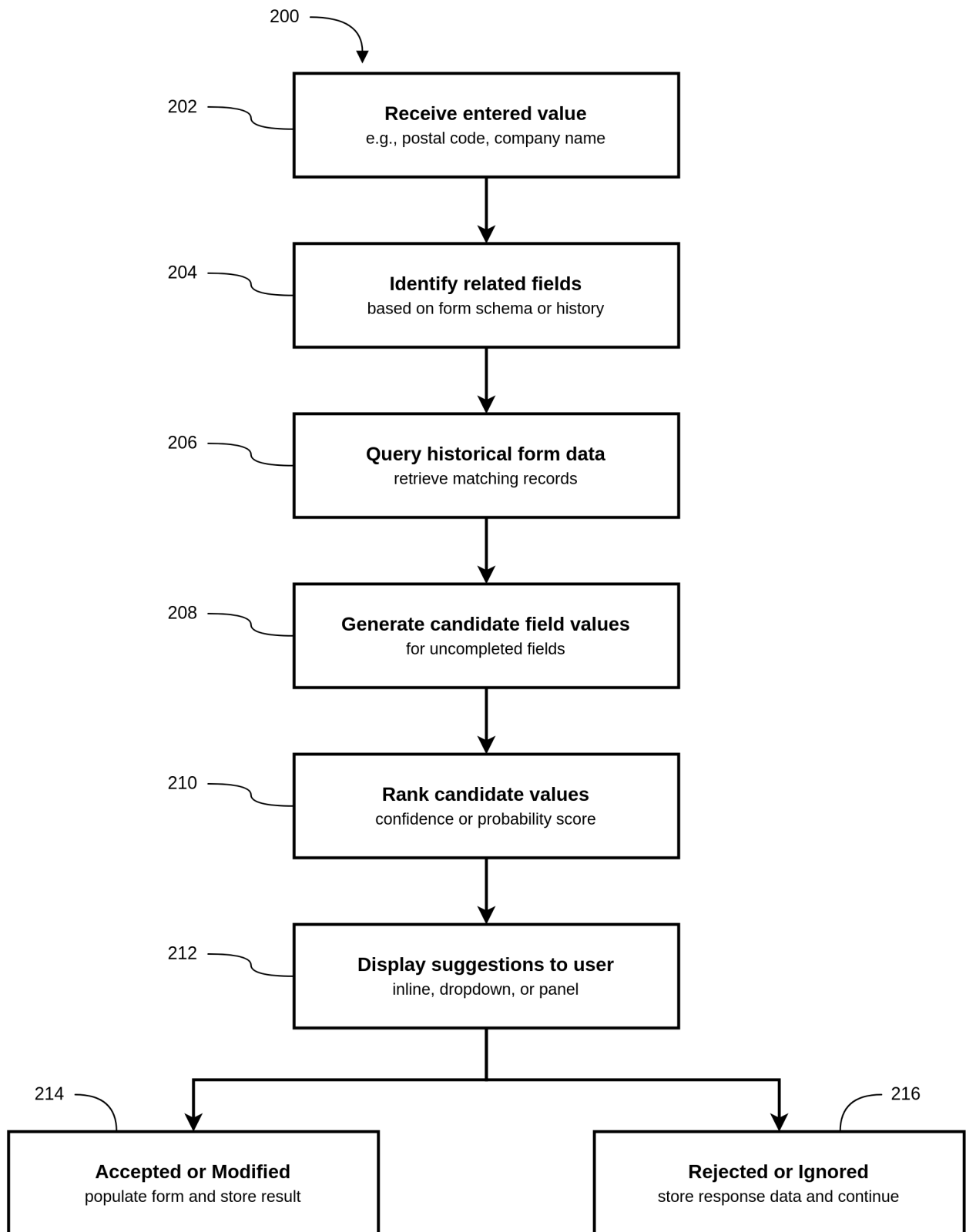


FIG. 2

ABSTRACT

5 A system receives a first value entered for a first field of an electronic form and identifies, based on historical form records, a relationship between the first field and a second field. The system queries the historical form records, constrained by the first value and the relationship, to retrieve a result set containing values associated with the second field. Based on the result set, the system determines a suggested second value for the second field before user entry and presents the suggested value for acceptance, rejection, or modification. The system stores response data associated with the user response.

FICPI AI Patent Drafting Masterclass

Client Follow-Up and New Figure — Amendment

Exercise

Computer-Implemented Inventions

16 September 2026
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WORKSHOP DAY

Prepared for workshop use. Follow the circulation instructions in this document.

16 September 2026Jordan Fielding
Docket Fielding LLP**Re: *Draft patent application — Intelligent Form Completion System***

Dear Jordan,

Thank you for sending through the draft application. I have now read it carefully with the inventors, and I think it captures our work very well. The system architecture, the suggestion workflow, and the worked examples all read exactly as we had hoped. We are content to proceed on this basis.

There is, however, one further feature we would like added before filing. You will recall the adaptive suggestion capability we mentioned previously but had not yet fully designed. Engineering has now settled on an approach, which I can describe as follows.

The system watches how a user has responded to suggestions that have already been made and adjusts what we are calling a “suggestion policy”. Engineering calls the component that does this the “Adaptation Engine”. The suggestion policy governs how often suggestions are offered, when in the form they are offered, and how confident the system must be before offering a suggestion. If a user consistently accepts suggestions, the policy moves towards offering more suggestions, offering them earlier in the form, and offering them at a lower confidence threshold. If a user repeatedly rejects suggestions, manually edits them, or simply ignores them, the policy moves the other way—fewer suggestions, later in the form, and only when confidence is higher. The policy may be kept for an individual user or for a class of users.

We have deliberately not fixed any numbers. We have not settled on threshold values, on how many responses the system should consider before adjusting the policy, or on the size of each adjustment. Please do not add technical detail that is not described above.

We have still not prepared a figure for this feature. Could you please add one showing how responses to displayed suggestions are monitored and fed back to update the suggestion policy, with the policy controlling suggestion frequency, timing, and confidence threshold?

Could you please incorporate this feature and the new figure into the draft, finalise the application, and file it ahead of the disclosure? We are sorry to trouble you with this now, as we know you are in Budapest at a very important conference this week. We would be most grateful if you could skip a couple of the wonderful dinners you will be attending and work on this for us instead, as you always do. We understand you have access to some wonderful AI drafting tools, so perhaps they will help you be quick enough that you only miss the starter.



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Kind regards,
Amrita

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Workshop Day