



PROFESSIONAL
CERTIFICATION
COALITION

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Re: August 30, 2023 Notice of Inquiry on Artificial Intelligence Systems

Dear Ms. Wilson, Ms. Strong, and Mr. Kasunic,

The Professional Certification Coalition (“PCC”) writes in response to the August 30, 2023 Notice of Inquiry on Artificial Intelligence (“AI”) Systems, published in the *Federal Register* by the U.S. Copyright Office with a request for comments (the “Notice of Inquiry”). 88 FR 59942. The PCC is a nonpartisan, nonprofit association formed to address U.S. legislation and regulations that affect professional certification programs, those who hold private certification credentials, and the many constituencies that rely on professional certification.¹ This comment responds to three questions posed in the Notice of Inquiry:

Question 2. Does the increasing use or distribution of AI-generated material raise any unique issues for your sector or industry as compared to other copyright stakeholders?

The way that professional certification organizations may incorporate AI-generated materials into their test development processes presents some distinctive issues. To identify these issues, some background about professional certifications and test development may be helpful. “Professional certification” refers to a voluntary process by which a nongovernmental entity grants recognition

¹ The PCC’s organizational members include nearly 100 non-governmental certification organizations, professional societies, and service providers. The PCC’s members reflect a wide spectrum of professions, including health care, engineering, financial services, and information technology, among many others. Our founding organizations – the American Society of Association Executives (the leading organization for association management) and the Institute for Credentialing Excellence (the leading developer of accreditation standards for professional certification programs) – govern the PCC. More information about the PCC and the current member list are posted at <https://www.profcertcoalition.org/about-pcc>.

to an individual to verify that the individual has met established standards of knowledge, skills and/or competencies in the field. Professional certifications serve an important role in self-regulation of professions and provide significant benefits to the certified professionals, to their employers, and to the public. In some fields, such as health care, safety-related roles, and the engineering and financial industries, regulatory agencies have incorporated the competency standards established by non-governmental professional certification programs into licensure requirements. Other professional certifications are not legally required to practice an occupation but are valued qualifications that enhance the credential-holders' job opportunities and that employers and consumers rely on as evidence of expertise.

In developing certification examinations, certification programs generally follow a rigorous, systematic process of defining the expected knowledge, skills and abilities for their particular profession through convening subject matter experts ("SMEs") to conduct a job task analysis for the profession or the specialty area that the certification covers. These SME panels define the content domain for assessment based on their extensive knowledge of the profession or the field of specialization; the programs also gain input from others in the field in defining the areas of knowledge on which candidates will be assessed. Many certification programs engage professional psychometricians in developing their exams; validation of exam design and content in accordance with psychometric standards is required for accredited certification programs.

Test item writing and review is a key element of exam development. In multiple choice tests, test items include the question stem, the correct answer response, and distractors (i.e., the wrong answer options).² Typically, SMEs will develop initial draft test items that assess specific content areas of the exam blueprint. Then, other SME panels will review and often make modifications to those draft test items for accuracy, appropriateness, difficulty level, and relevance to the content areas the exam aims to assess. Each test item needs to be validated to ensure that a candidate's performance on the test item provides actionable information about the candidate's knowledge, skills, or abilities, and that the overall examination accurately and defensibly serves as a measure of the candidate's level of proficiency.

This is a time-intensive and expensive process. Studies show that the actual costs of generating items for a certification exam range from \$500-\$1500 per test item. These costs derive from the time spent by SMEs to author an item, additional experts to review and edit the item, exam developers to input, classify, and collect metadata on item performance, and psychometricians to assess the validity of the test item.

Technological advances have played a role in changing how certification tests are developed and administered. Artificial intelligence and generative AI tools hold promise for reducing the costs and time involved in developing test items, as these tools can be used to generate draft content, such as for a test item stem or of possible answer choices to the stem. In all cases, however, in order to ensure that any content generated by an AI tool was accurate, appropriate, relevant, written in the desired style and format, and worded unambiguously, the process of test

² Other item types may be used in certification exams, such as true-false questions, short answers or essays, computation, sentence or paragraph completion, etc. Regardless of the format of the test items, however, the test development process includes job analysis, item writing and review, and item validation.

development would necessarily include a significant level of human review and likely revision by SMEs. Because this process is characteristic of psychometrically validated professional certification exams, the ways in which generative AI would be used by certification organizations differ from how other copyright stakeholders may make use of generative AI tools.

Question 18. Under copyright law, are there circumstances when a human using a generative AI system should be considered the “author” of material produced by the system? If so, what factors are relevant to that determination?

The PCC requests that the Copyright Office develop and support regulations providing that the human review and editing entailed by SME review of draft test items would be sufficient to render the test item copyrightable, even if some or all of the initial draft of the test item (or a component of the test item) had been produced through use of a generative AI tool. That close level of review and editing includes, as noted above, that the human SME(s) would assess each test item’s accuracy, appropriateness, relevance to the content area, style, format, and clarity of wording, and would make revisions and modifications to the test item as necessary to correct or improve it. This degree of close engagement with each test item should be regarded as resulting in the necessary level of human authorship to qualify for copyright protection.

It is vital to the security of certification exams that the test development organizations can depend on test items qualifying for copyright registration eligibility. The PCC therefore requests that the Copyright Office promulgate guidance or regulations establishing bright-line rules on this point.

Question 25. If AI-generated material is found to infringe a copyrighted work, who should be directly or secondarily liable—the developer of a generative AI model, the developer of the system incorporating that model, end users of the system, or other parties?

The PCC respectfully requests clear guidance, regulations, or statutory amendments establishing that end users of a generative AI model would not be liable for copyright infringement if the content generated by the AI tool contains content identical to a copyrighted work, unless the infringing party can establish that the end user has actual knowledge that the output of the tool is infringing another’s copyrighted work. At a minimum, this standard should apply if the end user is using the generative AI tool as part of the systematic process of secure test item development and review described above. Two main reasons support this request.

First, regardless of whether it is determined that scanning or inputting copyrighted material into the massive datasets used by large language model (“LLM”) generative AI tools, the way text-based LLM generative AI tools work is incompatible with a finding of copyright infringement by end users. LLM generative AI tools use deep learning algorithms to generate text in response to a prompt. The algorithms assign probabilities to predict the next word in a sequence, given the prompt or prior words in the answer. There is also an element of randomness, such that entering the same prompt into the same generative AI tool will produce different content. This process is not “copying” original expression the copyrighted work, even if the generated content mirrors

copyrighted works. In the vast majority of cases,³ similarity between the algorithms' output and copyrighted material will not result from "copying" that single work.

Second, and perhaps more importantly, end users of generative AI tools have no way to know whether the output of the algorithm pulls from a single copyrighted work or whether the output is wholly unique. The policy considerations that support liability for infringing on copyrighted material simply do not apply to end users. In terms of intent, culpability, and knowledge that content is infringing, there would be, in the vast majority of cases, no distinction between an end user whose prompt to a generative AI tool resulted in output that mirrored the content of a copyrighted work and an end user who received output that was not identical to or a paraphrase of any copyrighted work.

Thank you for your consideration of these issues. If you have any questions regarding this letter, please feel free to contact us using the contact information identified below.

Sincerely,



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³ An exception might be if the prompt were for content that mimics a particular author's style or that summarizes or excerpts from an identified author's work.