Ridgewood Camera Club
Committee on Artificial Intelligence (AI)
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Charter sponsor: Vinnie Kempf

<u>**Members**</u>
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Committee Charter
To establish rules governing the use of artificial intelligence (AI) in the course of Ridgewood Camera Club (RCC) competitions, events, and club activities.

<u>**Scope of Deliverables:**</u>

1. Define AI in terms relative to its application in photography.
2. Determine what uses (if any) of AI will be allowable in club competitions.
3. Determine if club activities, such as programs, workshops, and other non-competitive activities should include topics related to AI and to the extent thereof.

Terms and Definitions:

<u>**Artificial Intelligence (AI)**</u>
The theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages. – ***Oxford Languages via Google***

<u>**Artificial Intelligence Art**</u>
Any artwork, particularly images and musical compositions, created through the use of artificial intelligence (AI) programs, such as text-to-image and musical generators. It is sometimes confused with digital art. While both AI art and digital art involve the use of technology, AI art is characterize by its use of generative algorithms and deep learning techniques that can autonomously produce art without direct input from human artists. – ***Wikipedia***

<u>**Camera**</u>
A device for recording visual images in the form of photographs, film, or video signals.
– ***Oxford Languages via Google***

<u>**Photograph**</u>
A picture or other image obtained by the action of light or other radiation on specially sensitized material such as film, glass, or digital sensor.
– Oxford English Dictionary (modified to include digital photography)

A Brief Recap on the Key Milestones of AI Technology's Evolution:

January 2021: Artificial Intelligence software "**_DALL - E_**" is launched allowing photo-realistic images to be created based wholly on user-entered text prompts. The software generates an image based on the user's description in the text prompt.

April 2022: _DALL - E 2_ is launched as an update to the original DALL - E software. This new version of the software offers huge improvements in the quality of the images generated.

July 2022: _Midjourny_ AI software is launched as a competitor to **_DALL E 2_** and is quickly considered the best image generating AI software available. Images using Midjourny software start winning photo contest awards causing controversy over the use of AI generated images competing against "traditional" camera based photography.

March 2023: Adobe Photoshop introduces a Beta version of its AI tool: **_Firefly_** (available to all PS cloud subscription users)**_._** This software brings AI "generative fill" technology into the Photoshop workflow. Generative fill is Adobe's version of text prompt editing: typing in a text description of the desired edit, and the software creates the content seamlessly into the original photograph

The Five Main Features of Adobe's **_Firefly_** AI technology include:
1. AI image generation based on text prompts
2. Adding AI generated objects to existing images
3. Reframing and extending images with the ability to:
   - Increase borders (AI fills in the content)
   - Change aspect ratio (AI fills in the content)
4. Removing objects - AI fills in with new content (based either on a user text prompt or by random AI generated content)
5. Background swapping

Additional features include:
3D imaging, text effects, recoloring, and a host of other features aimed more towards graphic designers but available for digital photographs as well.

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Committee's Findings and Recommendations

Deliverable # 1: Definition of AI relative to photography

The generation of images that mimic the visual appearance of real photographs using complex algorithms and large datasets, allowing the computer system to 'learn' and create new, unique images.

Deliverable # 2: Rules governing the uses of AI in club competitions

Charter Committee Recommendation in Brief:
The charter committee is proposing that the following addendum that prohibits the use of AI images in club competitions be added to Rule #1 of the competition rules.

Proposed Addendum to Rule 1
AI-generated or computer-generated images are not permitted in any of the following RCC competition categories: Nature, Pictorial, Print, and Assigned Subject.

AI (Artificial Intelligence) for purposes of RCC competitions is defined as follows: Images made through the use of computer software-based generative algorithms and deep learning techniques that can autonomously produce images based on a user's text prompt but without any other direct input from human artists.

The committee believes that this addendum, along with the current wording in the competition rules (see below), make it explicitly clear that AI images (as defined above) are not permitted in club competitions.

Rule # 1 states:
*"Each image entered in a Ridgewood Camera Club competition **must be the photographic work of the member.** This includes the original image capture as **well as any adjustments or editing of digital image captures**."*

Based on the committee's interpretation of the definitions of photography and of Artificial Intelligence, an image that is generated by AI is neither "photographic" nor the work of the member. Therefore AI images would not be permitted in club competitions under the current rules. The addendum merely makes that prohibition more explicit.

Please note that the committee does not deem it necessary at this time to add any additional language to specifically address the topic of AI image editing software (as opposed to AI image generation) since the prohibition on AI image editing is already covered in the existing rules as noted above. It must also be considered that many of the new AI editing tools that are now available in the beta version of Adobe Photoshop significantly improve existing tools that are already widely used and accepted in competitions. As such, it would be a disservice to the club members to deny them the use of these tools. We must be cautious not to hinder club members' ability in utilizing the most recent advances in image editing software. Any attempt to create rules on new technologies that are still in a rapid state of development and not yet in commercial release would seem premature.

The decision to refrain from adding new rules specific to these new editing tools is further outlined in the supporting notes section below.

Supporting notes on the use of AI editing tools in club competitions

It is the opinion of this committee, given that the current state of AI technology has become so deeply integrated into the basic workflow of the most commonly used image editing software programs that are commonly used by the vast majority of photographers and camera club members (i.e. Photoshop and Lightroom), that any attempt to impose restrictions as to which tools and features should be allowed vs disallowed would be impossible to determine and equally impossible to enforce if implemented.

In reaching this conclusion, the committee members considered the following requirements that they felt would need to be met before any new rules could be implemented.

Any new rule on AI technology relative to club competitions:
1. Must be clearly and easily understood by the club membership.
2. Must be easily followed by the club members in the sense that the rule clearly defines which tools, features, or types of edits are allowed or disallowed.
3. Must be enforceable.
4. Should not disallow any software or editing features that are currently accepted in club competitions.

• Note on # 4: This point refers specifically to currently available software editing tools such as Spot Healing, Cloning, and most relevantly, the Content-Aware feature in Photoshop. Although these tools do not use AI technology per se, they do perform the same basic function of removing and/or replacing parts of the original photograph with computer generated content. In these cases, the nature of the manipulation is the same, only the means has changed. In simpler terms, why would we allow Content-Aware edits but not AI generative fill edits?

In considering the above factors, the committee members concluded that any attempt to draw a line as to what degree the new AI tools could be used would be impossible to draw, and equally impossible to enforce. Additionally, it would also be impossible to clearly explain the new rules to the club membership in a way that could easily be followed in practice.

Deliverable # 3: The inclusion of topics related to AI in non-competitive club activities and events, such as programs and workshops.

The committee proposes that topics related to AI technology be allowed for workshops, programs, and other club activities. These activities would be beneficial to the club membership in gaining knowledge and insight into this fast growing segment of image making. This will ensure that RCC members are fully educated on the latest available technology for those so interested in using AI for their own personal work.

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Caveat on Recommendations: Given the rapidly evolving state of AI image generating software, the findings above should be subject to periodic and timely review. It is recommended that as AI technology continues to evolve and becomes more commonplace in the workflow of photography, RCC should re-visit its position on this subject and update its position accordingly. This should be done at a minimum on an annual basis and continue until the technology has become more fully mature.