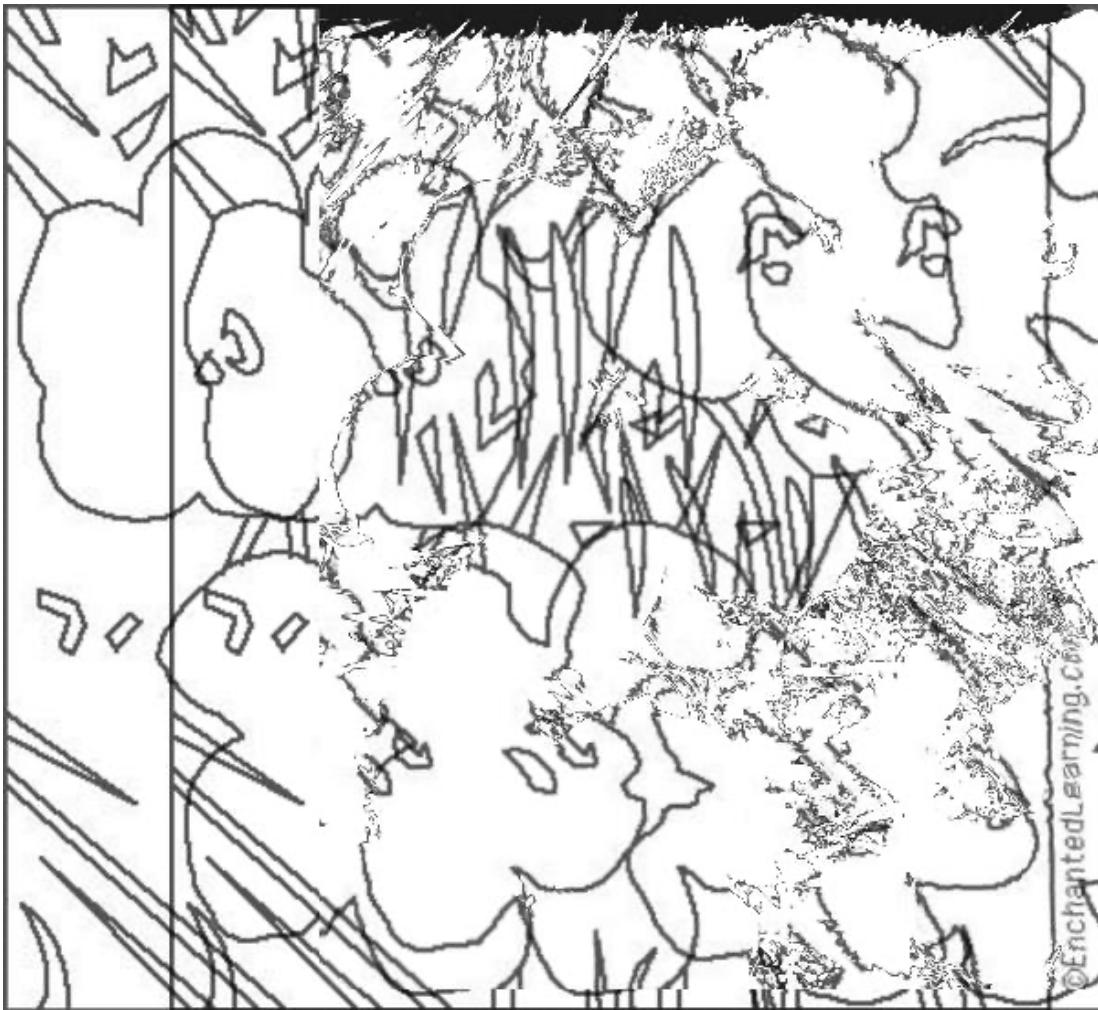


Cornelia Sollfrank

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Using the net.art generator anyone can be an artist. It's fun and simple. Just enter your name and a title, and the computer does the rest! Go to: <http://nag.iap.de>

The net.art generator is a computer program which, once a name and title is entered, activates a search engine and re-mixes found images and texts to create a new website or a new image. The given title functions as the search keyword. The resulting "works" are archived online and can be downloaded by any internet user.

Ever since 1999 when I first printed out, framed and showed computer-generated images in the exhibition "Seriality, Series and Networks" in the city gallery of Bremen, I have been thinking about who should actually be named as the artist. Even in subsequent exhibitions nobody contested the fact that these images were shown and even sold under my name. It was only the art theorist Ute Vorkoepfer who problematised the issue of authorship in her text "Programmed Seduction".

"At the same time, we as users are assistants to the artist who collects our images under her name. Some of them she exposes, frames and exhibits in gallery spaces. The generator project becomes even more paradoxical when displaying the user's participation. On the one hand, it breaks with existing categories and hierarchies, while on the other, it shows how these remain persistently installed and are abused."¹

Vorkoepfer assumes that I am in a position to, and that it is my intention to, appropriate works produced by others and ultimately to use these for personal aggrandizement and to further my reputation. She supposes to reveal my artistic project and "exposes" me as a profit-hungry art commissioner. But from a legal standpoint who is in fact the author of these images? Should I share out my profits? And, if so, with whom?

I seek clarification through the minefield of copyright law. It states:

"An author is the sole creator of an original literary or artistic work, the original status of which is secured through intellectual property rights, described as copyright or authors' rights."

In the case of a work on which more than one proven and named creator have participated, there is the possibility of calling on the option of "joint authorship". How this applies to the images created by the net.art generator will hopefully become clear when all those who help to create any part of the works can be identified and their relative importance assessed.

The first important entity in the creation of the image is the computer program, a Perl script. This is identical to the net.art generator. The script plays a significant role in selecting the material as well as in determining the way in which it will be re-worked and rearranged. In

¹ Vorkoepfer, Ute, "Programmed Seduction. Cornelia Sollfrank tests new Models of Authorship on the Net," in: Sollfrank, Cornelia (Ed.), *net.art generator*, Verlag für Modern Kunst, Nürnberg, 2004.

this case, the program is certainly more than just a tool; more than for example, a text program which a poet might use to write poetry.

Since it is not a standard software application, but a specially created perl script specifically developed to generate images (a so-called “individual software”), the second entity involved in the creation of the image is the programmer who wrote the source code and who holds the program.

The third is the user who, by entering keywords – which at the same time serve as titles – has significant influence on the content which appears in the image.

But it would not be possible for the net.art generator to re-work existing material unless other copyright holders such as artists, professional or amateur photographers, graphic designers, etc. first publish their work on the Internet. By putting their material online, they also make a significant contribution to the creation of new images.

The final entity I would like to name is myself, the originator of the idea. I developed the concept and commissioned the programmer to realize it; I take care of the maintenance, distribution and contextualization of the net.art generator.

All of these authors contribute to the creation of new work, and merit thorough examination.

1. The computer program

Perhaps the role of the computer program is the most difficult to evaluate in the whole process of the generation of an image. As already mentioned, it is not a tool, as is a pencil for a drawing. The program is responsible for determining which search engines will be used, which images and texts will be loaded into the pool of material to be re-worked, and which parts of that material will then actually be used. It also determines which of the potential image manipulation processes will be applied to individual parts of the material, in which order this takes place, and in which order the selected and manipulated pieces of images will be re-layered and presented as the final composition.

It should be noted that in net.art generator nag_04 fourteen, various steps of image manipulation are defined, the choice and order of which are controlled by a random generator. Random generators introduce unpredictability due to entropy, an aspect which is fundamentally opposed to a computer program, but which is essential to the production of a work of art.

Importantly, the use of random generators means that a significant part of the image creation is determined by the computer, regardless of the original intention of the programmer, the user, or the originator of the idea. Nevertheless, it is not possible to add the

computer to the list of joint copyright owners since copyright may only be held by a human being. Here the dividing line between the human-created, and the computer-generated begins to blur significantly. To quote one legal commentator:

*"Would it not follow logically, that the computer from which the product is created, should be seen as the author? It is no longer possible to clearly demarcate the computer as a tool from the computer as an "individual creator" [...]. In most cases of computer-generated products, a lawyer ignorant of the fact that the work had been created by a computer would deem the object in question copyrightable."*²

In addition, the fact that almost all artists employ a process similar to a computer program – known in art history as an "artistic program" or a "style" – when they create easily recognizable artworks, lends strength to the argument that the computer program should be recognized as the location where the creative process takes place.

This "program" of an artist is at a functional level comparable with a computer program which generates artistic works. However, the rule of exclusively human ownership of copyright excludes the possibility of granting any copyright ownership to that program. Conversely, there are legal theories which as a principle deny computer-generated artifacts the status of "artworks" on the grounds that creative inspiration is an ideal reserved for human beings and cannot be simulated by machines. Indeed, the obvious intellectual content and originality of the artifacts created would seem to offer evidence of creativity on the part of the machine and demands a separate debate on the problematic.

One possible solution to the problem being discussed by legal experts is the "presentation principle", whereby when the created artifacts have been machine produced, and therefore the program used allows for an unlimited number of products, validation of authorship is attributed by the "creative selection" of the products presented.

"Through their presentation a person is identified with their selection, and thus, in accordance with § 12, Abs.1 UrhG [Section12, Paragraph 1 of German Copyright Law], is recognized as the author".³

In the same way, analogue methods exist for determining authorship in the fine arts; in the case of artists using "found objects" or collating pre-existent material, where it is not so much the new creation as the selection and presentation which is rated as the artistic-

² Thomas Peter Schmid, Urheberrechtliche Probleme moderner Kunst und Computerkunst in rechtsvergleichender Darstellung, München [Copyright Problems in Modern Art and Computer Art in Legal Comparison], p136f.

³ Gerhard Plumpe, Der Autor im Netz [The Author on the Internet], <http://134.147.94.139/plumpe/vortraege/netzautor.pdf>

creative activity.⁴ It is not clear from a legal standpoint whether simply the selection of these objects confers sufficient intellectual content in order to meet the legal requirement of ownership and individuality.⁵

*"Legal experts do not consider computer-generated artifacts to be lacking in intellectual content, but they cast doubt over the individuality of their origination: 'presentation principle' addresses this issue."*⁶

This makes it easier work towards a definition of the copyright holder by means of this determination of the selection criteria. If I exhibit automatically generated images in a museum or gallery, I have developed specific selection criteria which, according to the presentation principle, mean I am considered the creator of the images.

The presentation principle leads us clearly away from the notion of the machine or the computer program as copyright holder and attempts to shift authorship to a person involved. Alongside all the other human participants responsible for the image, another scenario presents itself whereby another individual selects and presents work, for example a curator who chooses images from an online archive. According to the "presentation principle", this person would be defined as the author of the selected images.

2. The programmer

Legal experts are considering not only the person defined by "presentation principle" but also another potential author of computer-generated artwork: the creator of the software which generates the work.

As the net.art generator is an individual software, which to a large extent determines the appearance of the resulting artifact, we cannot dismiss the suggestion that the programmer should be named as the author. Since 1993, in addition to § 2, Abs.1 UrhG [paragraph 2, section 1 of German Copyright Law] which guarantees protection for computer programs as works of literature, there has been a supplement specifically for software. Under § 69a UrhG [paragraph 69a of German Copyright Law], *"computer programs are protected when they represent individual works in the sense that they are the result of the individual creative innovation of their copyright holders. No other criteria are applicable for determining whether these works are copyright protectable, in particular no qualitative or aesthetic criteria."*

According to this the programmer is clearly the copyright holder of the copyright protectable software and equally should, according to legal experts, be identified as the author of the resulting artifacts. It is important to note the fact that, in the case of the net.art generator,

⁴ Schmid, loc sit p.44

⁵ Schmid, loc sit p.10s

⁶ Plumpe, loc sit

the generator program which creates new artifacts is itself a linguistic work, and is as such copyrightable.

How much does the programmer actually influence the resulting images? The logic of the programmer is manifest in the program code. He uses his intelligence to express his idea of creativity. But it would be naive to consider a computer program as a representation of the "artistic" creativity of the programmer. In spite of this there is currently no other standard which can be applied, other than the intention of the programmer, and his technical ability in the realization of this intention. However, whether this has anything to do with the actual meaning of art or artistic copyright remains questionable. The ability to realize an idea technically is, according to current understanding, not necessarily art. Nonetheless, in our case numerous joint copyright holders are, just by tacitly using the program, subject to the decisions (including the aesthetic decisions), of the programmer.

Another aspect which I would like to introduce into the discussion is the early European model of the poetic author, where a trained poet produces their own poetry known as a "standard work", which cannot be considered as the individual work of the publisher but rather as a masterly demonstration of poetic technique. In this case authorship is not determined in terms of individuality and virtuosity, but in precise knowledge and particularly skilful command of the rules. Applied to the net.art generator this viewpoint necessarily brings us back to the first point, to consider the software as the copyright holder. It remains arguable that the code does not actually write itself and thus the person who wrote the code remains unavoidable, since it is only thanks to his work that we can distinguish potential from actual works.

The suggestion that the programmer should be raised to the status of the sole copyright holder should however only be contemplated where no other human input into the resulting artifact can be detected, which certainly does not apply in our case. Since it is clear that several people are involved in the creation of the work, one can at best describe the programmer as a joint copyright holder. In this case I questioned whether the programmer should be considered the sole copyright owner of the program since it was actually a special co-operation with myself as originator of the idea: I commissioned a software company to write the script for a net.art generator. The programmer employed by this company was operating within the framework of my commission. § 69b UrhG [paragraph 69b of German Copyright Law] says:

"Unless otherwise agreed, where a computer program is written by an employee as part of his duties or under the instruction of his employer, uniquely the employer is entitled to exercise all and any property rights authorizations."

At the same time, ownership of copyright of the program remains with the programmer even in the case of straightforward commissioned work. It is important to note the "property rights authorizations" which the employer (in other words the company) is entitled to. What exactly these authorizations consist of, and which rights (for example license to use the program) are assigned to the client, have to be specified in a contract between the client and the company. According to the principle of so called "assignation for a specific purpose", in the case of doubt the only rights which are assigned to me as the client are those expressed in the conditions of the contract.

With the image generator nag_04 it should also be taken into account that the idea and conceptualization of the program originate from me, and also that through regular tests, criticisms and suggestions for improvement, I had a significant influence on the final form of the program. In my view, one has to thus at least assume that I have joint copyright. But the law in no way recognizes this. It states that a client who commissions an individual software will always determine the way in which it functions to a greater or lesser extent, and does not as a result become either a copyright holder or a joint copyright holder. That means that from a purely legal standpoint my claim to joint copyright ownership would be disputed. I may have supplied the idea, but it is hardly possible to protect it under our legal system, or rather supplying the idea is rated as peripheral in comparison to actually realizing it. According to this principle, the programmer of a computer program holds both the copyright of the program and of the resulting artifacts, which leaves me as neither the sole nor joint copyright holder of the resulting images.

3. The user

In addition to the constellation of contributions made in the production of a computer-generated image, there is another role which has to be considered, namely that played by the user.

The net.art generator is interactive in concept, in other words, it requires the contribution of interactors which goes beyond purely the selection of pre-defined options. Without the input of the user, the net.art generator would not be able to produce images; only at the moment of interaction, i.e., when a title and a name are entered, can a work be created.

The lawyer Gerhard Schricker suggests that in this kind of case of "free" interactivity the legal principles relating to the re-working of protected works should apply. These call on § 23 UrhG [paragraph 23 of German Copyright Law] which defines "re-design or continuation of protected works" and § 24 UrhG, [paragraph 24 of German Copyright Law] which determines the "free use" of a work.

"Where there is a re-working resulting in a new piece of limited originality, it is considered to be a 'variation' on the original piece. In view of the way in which it

comes into being, this secondary re-working thus requires the explicit permission of the copyright holder of the original work which is to be re-worked."

In the case of the "free use" of a work, the interactive user has created a completely new work which "*demonstrates a personal intellectual innovation*" and thus is independently copyrightable and "*can be published and evaluated without the permission of the original copyright holder*" (§ 24 UrhG, [paragraph 24 German Copyright Law]). Which paragraph and thus which ruling applies to the net.art generator? Are these newly created images works of individual inspiration which are copyright protectable and so do not require the permission of the original copyright holder⁷ or are they nearer to limited individual works which do require that consent? With regard to the resulting work there are indications that it is only of limited independence – ultimately every new picture is comprised of parts of other pictures. A large part is played by the combination, by unpredictable means, of pieces of an original work with pieces of another original work. And so once again the program, the programmer and the creator of the idea come into play. The process of manipulation used by the net.art generator generally makes it impossible to clearly identify an original image, although there are individual exceptions which would have to be considered case by case.

Establishing the net.art generator in a clearly artistic context reinforces the principle which tends towards § 24 UrhG [paragraph 24 of German Copyright Law]. The individual newly created image may indeed be classified as a limited individual art work, however it is also part of an overall artistic concept which in turn clearly represents an independent creative achievement. If one considers the new work to be not an individual independent work, but rather a part of a larger artistic concept, one can reasonably assert that it should be seen as a unique creative and copyrightable work. In this case the agreement of the original copyright owner is required.

It remains to be seen whether a work resulting from interaction can be considered a "collective work" with genuine joint copyright ownership under § 8 UrhG [paragraph 8 of German Copyright Law], and who then should be described as a joint copyright holder. The intervention of the user is identifiable and significant but the input happens mostly spontaneously and is not necessarily characterized by intentional and carefully considered co-operation. Joint copyright ownership would require the intention to "co-operate" in the production of a work which in this case can at best be seen as limited. On the one hand, without this intervention there would be no image, but of course, the resulting image can only be determined by the user in terms of an open subject (the given title). The precise selection of the images as well as further influence on the final result and its subsequent

⁷ Originalurheber im Sinne von Schricker: „... stellt ein als solches, vollendetes Werk zur Verfügung, das zur Umgestaltung oder Fortsetzung gleichsam einlädt; ...“ (Schricker 1997, 48) [The copyright holder as defined by Schricker: "... makes an as such complete artwork available which at the same time invites re-working or continuation..."], see also p. 14.

exploitation, are beyond the user's control. Purely from a technical standpoint, therefore, joint copyright cannot be assigned to the user, and so I propose that the user's behaviors and intention when using the net.art generator should be considered as the decisive factor. Many of the works are labeled "anonymous" and thus cannot be identified as being the work of a given individual, but even in the case of those which are marked with a real name it is difficult or even impossible to include them as the joint copyright owner of the new image.

When it comes to the fair division of any proceeds from the exploitation of the image, then the role of the user, who is already difficult to identify as joint copyright holder, becomes really problematic. In such a case the law suggests the "reserve solution" whereby any proceeds due to a user will be held back by the responsible court, and would be passed on to the state after a thirty-year period should no claim be forthcoming. In any case, the name given by the user, or his wish to remain anonymous can be mentioned in the description of the picture.

4. The “original author”

The list of those involved in the production of the image is not as yet complete, since in order to function the program is completely reliant on the material from the Internet which it selects and then re-works in order to create the new work. And this material itself has copyright holders. To distinguish these copyright holders from the copyright holders of the newly created work I draw on Schricker's term “original author”.⁸

“The original author makes available a work which as such is complete, but which at the same time invites re-working or continuation; its further development results in a new independent stage of creation.”

It is certainly not possible to generalize about what motivates an original copyright holder to put their work on the Internet. Whether by putting work on the Net he accepts any re-working which can so easily be made, or even invites this, or considers this an infringement of copyright varies from case to case. A special function of net.art generator nag_04 enables a search of the sources (URLs) of each of the images used. If there is a picture credit on those websites then it would be possible to locate the original copyright holder of the images used. Generally, however, this is not a clear indication of copyright. One reason for this is that the person who publishes the image on the Internet is not necessarily authorized to do so, or is not necessarily the same person as the original copyright holder.

⁸ Gerhard Stricker (pub.). Urheberrecht auf dem Weg zur Informationsgesellschaft, Baden-Baden, 1997. [Copyright on it's way into Information Society], p.48.

Should a user of the net.art generator decide to enter “warhol flowers” as the title of the new work — as I did in the example above — they follow on in a long and complicated history of that work. As with many other well-known artworks, one can find not only one, but a whole list of original copyright holders. Although one thinks of Andy Warhol as the original copyright holder of the celebrated and widely distributed flower pictures (1964), which exist in over 1000 variations, the work which inspired them was not his own. In fact, the photographs of hibiscus blooms which so appealed to Warhol had been published in a photography magazine by American photographer Patricia Caulfield in 1962; Warhol used these images as the template for his own pictures. Warhol’s success meant that his flower pictures became rapidly distributed and popularized. Caulfield learnt of the use of her photographs and the subsequent financial success of Warhol’s work and consequently sued for copyright infringement. The photographer won the case and Warhol had to pay not only damages but also from then on was obliged to pay her a percentage of the earnings from the flower pictures. He was subsequently more circumspect about using found images.

As already mentioned, there are over a thousand versions of Warhol’s flower images. Reproductions of these pictures are to be found mainly on websites of museums, galleries and poster shops. In such cases one may safely assume that the reproductions are of Warhol’s work and have been authorized as such. Beyond this there are countless reproductions of Warhol’s flower pictures created by others often imitating his style, as well as many pictures on private homepages using the same title. These pictures are not legitimate if they use Warhol’s work as basis for their design and have often little in common with his motives. But it cannot be ruled out that works like this that are fraudulently described as Warhol’s flowers are not also processed by the net.art generator and made into a new composition. The question of who the original copyright holder is becomes ever more complex in art historical and legal terms should the net.art generator manipulate the work of the American artist Elaine Sturtevant. From 1965 the artist used Andy Warhol’s silk screen workshop to produce exact copies of his prints but which she then signed with her name and released on the art market. Warhol’s flower motives number among the subsequently copied works. Sturtevant claims to this day the originality and authenticity of her signed reproductions of famous artworks of the Modernist period. As there are many reproductions of Warhol’s flower pictures by Sturtevant on the Internet it cannot be ruled out that an original flower motif may be used which is not in fact Warhol’s but Sturtevant’s. This can only be established conclusively if the picture is clearly described as such.

In a number of the Warhol flower pictures which are stored in the archive one can clearly see the dominance of a specific source and this may not come directly from an original reproduction of Warhol’s work. The black and white picture which only indicates the contours of the flowers comes from an educational website for children⁹ which, by means of

⁹ <http://www.enchantedlearning.com/paint/artists/warhol/coloring/flowers.shtml>

an interactive coloring book concept, familiarizes the user with the work of a number of artists, one of whom is Warhol. Children or other users can select from a large range of colors and then transfer them onto a separate window with the contours of the picture. When the picture is finished and fully colored in it can be downloaded as the user's own version of Warhol's flower picture, and of course used as one's own work or copied as a Warhol work on one's own website. From a purely conceptual point of view, Warhol would probably have enjoyed the interactive coloring book which daily produces countless new versions of his flower pictures in new color variations and creates associations with his 1962 painting 'Do it yourself (Landscape)', in which he ironically adopts the idea of painting by numbers. The idea of a computer program which not only produces new color variations but also countless new pictorial compositions all originating from a simple hibiscus flower would surely also have given him even more pleasure. If one uploads all these new versions of "his" images under the title "warhol flowers" then slowly but surely it would become harder to differentiate between "manipulated" and "free" usage of the original sources. This can be seen as a continuation of Warhol's original concept. Without doubt these new works would have met with his light-hearted approval – and even more so if he could have gained financially.

5. The originator of the idea

Finally, I wish to examine my role as the originator of the idea and to discuss the extent of my share in the creation of the image. It has always been a part of my artistic practice to not only produce original works as a sole creator but also to think about the means of production itself, to change these, and above all to question the traditional division of roles. To quote Rainer Crone:

*"Even the potential to reproduce a picture by Warhol, even the doubt about him being the actual creator of the works ascribed to him, undermines the centuries old belief in authenticity and autonomy of individual expression."*¹⁰

I try to confuse the notion of what an artist does, not simply in relation to the idea of reproducibility, but even at the point of production. Warhol also did this, by allowing workers at the factory to make 'his' pictures for him: mass production with the help of others. We can go back still further and see the same principle in the workshops of masters such as Rembrandt, Michelangelo or Caravaggio. The idea that an artist allows their work to be executed by others is not new. Warhol claimed in an interview that he himself wanted to be a

¹⁰ Rainer Crone, Die Tafelbilder Warhols, [Warhol's Pictures] 1 972, in: Rainer Crone/ Wilfried Wiegand, Die revolutionäre Ästhetik Warhols [Warhol's Revolutionary Aesthetik], Darmstadt 1972

¹¹ "I want to be a machine", Andy Warhol says in an interview with Gene Swenson ["What is Pop Art", in ArtNews 62, New York (1963), p.26].

machine¹¹ and built up a whole apparatus for producing pictures. But he was not the machine himself; he created the machine and became a part of it.

The name of the master, whether Rembrandt or Warhol, functions as a label and guarantees as such for “quality”, or rather “originality”, even when the master has not personally touched the work. This model of production, which is initiated by an artist and takes place in their name but to a certain degree is produced without them, also applies to the net.art generator.

Warhol combines an old, outdated medium, the tableau, with the then new medium of photography. The concept of the net.art generator goes a step further and combines the picture with photography and the Internet. And in contrast to the Warholian factory, with the net.art generator the boundaries between producing, receiving, and consuming, become really blurred. The users play a significant role in the production. They are not only “consumers” who get the possibility to participate but become a necessary part of the production.

I initiate the process by supplying the idea, but then activity from others is necessary in order to produce results. How significant the roles of the other participants are deemed to be from a legal standpoint in the case of the net.art generator has already been discussed in detail above. What does it mean to be responsible for the concept and to determine the criteria for the rules and the code? And what happens to me as the artist? Do I get rid of myself? Do I disappear or even die, after I have paid the programmer and set everything in motion? What else can I do? What else should I do?

In the early seventies, there was a consensus regarding Warhol’s work that it no longer made sense to ask for the original when so many prints existed and were in circulation. It seemed that Warhol had managed to change some of the conditions of the art world. This makes the appearance of the Andy Warhol Art Authentication Board administered by the Warhol Foundation¹² seem all the more absurd, as it seeks to “make” originals by assessment and authorship, doing precisely that which Warhol himself was trying to undermine. Clearly, the establishment of his concept was only temporary and never fully realizable; in the long run the art market and its requirements were able to assimilate it. As in most cases, the work follows a particular viewpoint of the artist, but discrepancies may occur between the intention of the author and the way in which it is perceived.

Reference to Warhol, Sturtevant and other artists making *appropriation art* demonstrate how many artists from early on historically have concerned themselves with the issues of

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authorship, original and copyright. These issues are an ongoing minefield in Fine Art. Artists sometimes make radical artistic suggestions and throw up questions which cannot be fully covered by existing laws. To avoid complex new challenges being simplified in order to fit the existing legal framework, it would actually be necessary to create new laws. It is not rare for legal inadequacies to inhibit artistic development.

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6. Conclusions

In the case of the net.art generator, my legal research has led me to the surprising result that I am mistaken to describe myself as the author of the generated images. I exhibit these pictures and sell them regardless, without sharing the profits with any potential joint author. The art market has no problem with this. Quite the reverse. The clear attribution of a name has always been an important sales criterion and will remain so. I will continue to try to attain the greatest possible profit and at the same time try to subvert the existing categories and hierarchies of the art system.

Many thanks to the programmers of the net.art generators, to all users who permanently help producing new images, and to all who put their material online. Further thanks go to Gerhard Plumpe for his inspiring text, as well as to Peter Eller (Munich) for his legal advice.

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