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AI: ALL DAYS

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A CROSS SECTION ACROSS ARTISTIC AND ARTIFICIAL INTELLIGENCE

This article provides the conceptual basis and examples of the implementation of the group exhibition project AI: All Idiots, which was part of the Other Knowledge exhibition series at the MeetFactory Gallery in Prague in 2021. (for a view of the exhibition, see Figures: 1 and 2). The purpose of the project was to bring the subject of modern artificial intelligence to the attention of the general public while still being artistically stimulating. In lieu of the conventional strategy of curating a selection of artworks created by artists working with AI, we opted to start from scratch by gathering online digital copies of selected artworks by Czech artists, which served as a training dataset for our original AI software. The artists were also involved in the data's interpretation. The experiment addressed the widespread use of AI for web content analysis, artists, curators, and the art community as a whole, as well as the question of whether AI operates as a source of information to generate stereotypical products that cannot do more than statistically confirm and continously repeat what is already known.

> *"The language of the algorithms of machine learning is uncompromising and vulgar. It is the language of unscrupulous statistics with the cynical goal of extracting value (information) wherever possible. The conception of AI: All Idiots appropriates this vulgar language and lays bare the degradation of human beings into statistically more or less important objects; spectacular sources of data. To referents of stereotypes that are to be statistically confirmed and forever repeated. The AI: All Idiots exhibition project represents a cross section across "artistic" and "artificial" intelligence on a sample group of Czech artists. This engenders an attentional shift from the individual artistic products to the fact that art also exists within the context of digital technologies where artificial intelligence encounters them."*
> (Javůrek, T. & Meixnerová, M. & Trnková, B., 2022)

The cultural environment today is fundamentally determined by the operation of digital technologies and learning algorithms. A fast-paced, self-interested interactive dialogue between prosumers and technology developers about the tools for creating content and the formats of its consumption has replaced the traditional role of visual professionals as the ones responsible for creation. We are still exploring potential avenues for the art world to participate in this creative dialogue, not only in terms of formal inspiration and the use of pre-built AI tools, but also, and perhaps more importantly, in terms of generating novel perspectives and agendas that complement critical art practice.

Figure 1: View of the exhibition, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

Figure 2: Aimee, a digital guide, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

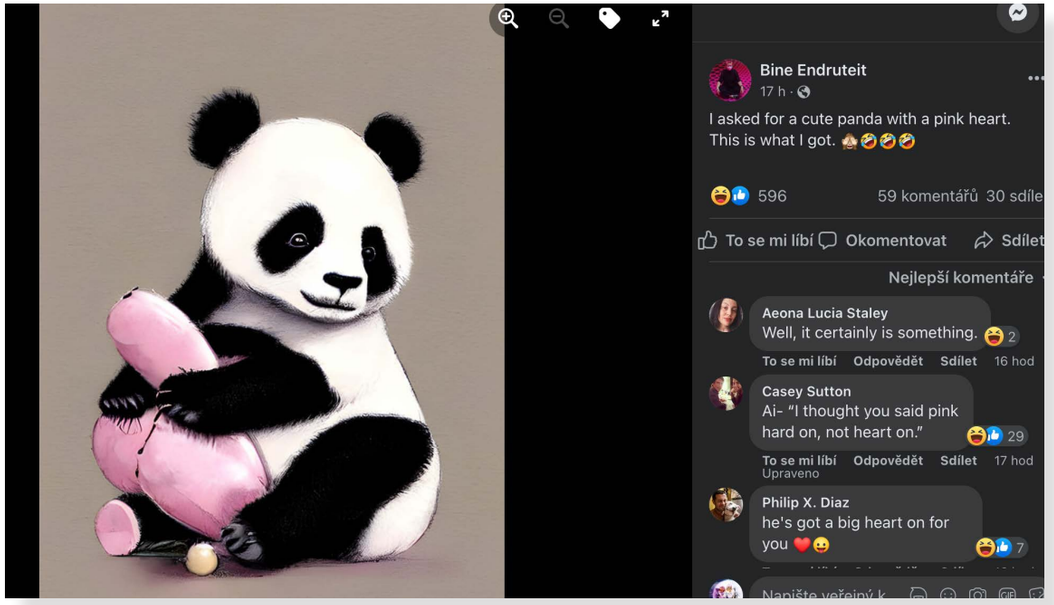


Figure 3: An example of a generated image using the Midjourney engine, shared on Facebook, screenshot, Barbora Trnková, 2022

Figure 4: An example of a generated image using the Midjourney engine, shared on Facebook, screenshot, Barbora Trnková, 2022

A NIGHTMARE OF IMAGINATION

Artificial intelligence is being experimented with in all areas of culture, by artists, developers, designers, scientists, and everyday users. Frequently, the objective is to produce content that is equivalent to or even more compelling than that of a talented human author. Individual models of specialized learning algorithms also combine and are interlinked. In a fraction of the time and with the appearance of autonomy, content is generated in staggering amounts. However, these algorithms still require a great deal of human aid in the form of decisions, and should therefore be viewed more as another type of synthetic paintbrush or a more sophisticated camera. What potential does learning algorithm technology provide for the growth of artistic imagination?

Developers and enthusiasts claim that the Midjourney synthetic generator transforms imagination and dreams into breathtaking works of art without limitations. All the user has to do is enter a text command in the form of a string of words and the program will generate an infinite number of image variations based on the input. After some time of experimentation, it is not difficult to understand how to use this synthetic brush to create digital images. Thus, A suitable selection of keywords can be used to take advantage of the system's limitations and circumvent the rules established by programmers and taggers. (Figure 3).

Nevertheless, I have come across images of sexualized female bodies in abundance on social media fan communities dedicated to this tool (Figure 4), with users expressing great satisfaction with their quality. Given that the learnt network can best mimic the scenes that were prevalent in the dataset, it is evident that it contains a significant amount of sexualized female bodies. However, it also turns out to be a syncretic tool that can be used by designers for sketching and designing. Indeed, the speed of algorithms allows them to experiment quickly, which can contribute to the development of these fields, simplifying their work, but also putting many designers out of work.

In 2020, Vladan Joler and Matteo Pasquinelli (Joler, V. & Pasquinelli, M., 2020) summarized the biases and limitations of learning algorithms in order to break the unfulfillable promises we associate with this technology. They pointed out that data collection itself is neither technically nor socially neutral. Input data is already biased at the collection stage where old and conservative taxonomies can cause a distorted world view, reduce social diversity, and exacerbate social hierarchies. In addition, they identified machine-algorithmic bias, often known as statistical or model bias. During this process, the dataset is contorted by information compression, dimensionality reduction, and statistical diffractions, resulting in the loss of a substantial amount of variety that is useless to these algorithms. However, the reduction also occurs when the algorithm is trained on the data - pattern extraction based on classification occurs. It can be said that in the process of machine learning, the world is compressed into a statistical model, in Dan McQuillan's words,

mathematically minimized. (Joler, V. & Pasquinelli, M., 2020) Although the process of reduction is commonly performed by human intelligence as well. However, it should be borne in mind that reduction is not only a necessary and expedient process, but also a highly delicate, aggressive, and violent process, because in the process we eliminate informational and alternative possibilities. However, learning algorithms always make the most average connection between the most averagely understood terms of various categories and the most averagely understood visual representation, and they do it very fast and in enormous numbers.

This technology's products essentially meet all the criteria for kitsch. (Kulka, 2002) Individually created and selected images do not provide the strongest visual experience; rather, the output of this technology as a whole produces a sensation of immanent familiarity, a déjà vu of Western culture.It makes it possible to make souvenirs out of images of the recent, digitalized, selective present. But the promise of unlimited creation cannot be fulfilled. The dream of infinite possibilities literally turns here into a nightmare of imagination. Images produced by Midjourney look familiar not only because they combine and syncretize familiar images into surrealist fusions, but also because we have long been accustomed to surrealist assemblages and postmodern fusions from our media experience. We live in a culture of constant visual oversaturation. The products of text-to-image engines are just another highlight of this process.

Learning algorithms offer the development of creativity. But the question is what kind of creativity, and under what conditions, could we consider this powerful combinatorics of data and categories to be a creative tool. Indeed, some of the promises are turning out to be false. One important example is the dissolution of the dream of the assumed and computationally documentable success of rapper FN Meka. This artificial musician resembling a cyborg was developed using data gathered from video games and social networks. However, the musician's lyrics have been shown to be hateful, reproduce racist stereotypes and make light of police violence against the black community. (Dazed, 2022, August 26) (BBC, 2022, August 24) In the music industry, artificial stars have been created to meet audience demand for years. (Stassen, 2021, April 1) However, this example confirms that neural networks, as designed (back propagated), reinforce features of what they process and therefore reinforce existing stereotypes in society. We could see the rapper FN Mekka as an example of a new type of advanced musical instrument composed of learning algorithms. However, it seems that it is not easy to understand how this instrument is actually played.

Lev Manovich emphasizes that artificial intelligence is playing an increasingly important role in our cultural lives and behaviors, increasingly automating the processes of aesthetic creation and aesthetic choices, from mobile phone text editors, recommendation apps, and all manner of profile photo editing apps. (Manovich, 2018) There are a growing number of freely available AI apps for creating aesthetically satisfying texts, images, and music. We can witness how social media pages de-

voted to the output of publicly accessible engines for generating photos using machine learning algorithms are teeming with stereotypical content. On the other hand, according to Manovich, the same trends might also boost diversity due to the global availability of local cultural DNA. (Manovich, 2018) However, we must remember that these are cultural objects that have been picked and modified to be moved to the digital online world and then re-distributed – in the form of a selection – only to those with modern digital gadgets and internet access.

Slavoj Žižek, in his famous Pokémon Go metaphor, emphasizes that the reality we live in is far more a product of fantasy than rational knowledge (Žižek, 2017, November 7) But before we utilize algorithms to inject new 'fantasy items' into our reality, we must acknowledge that our horizon is already filled with a variety of products of our fantasy. In a figurative sense, the world is already overrun with Pokémon. We are currently immersed in the products of a dominant subjectivity and its imagination. If we, as authors and artists, wish to participate in the formation of the world, we are not limited to merely superimposing more and more objects on top of those that already exist. We can concentrate on recognizing, exposing, and removing them from our line of vision. The identification of these artifacts is invariably a creative endeavor that takes focused attention and bold imagination.

I D I O T S

What is then the role of art in a space defined by digital technologies and artificial intelligence? And why might it be interesting to ask whether artificial intelligence has a sense of humor? In the summer of 2019, the curatorial collective ScreenSaverGallery, consisting of Barbora Trnková, Marie Meixnerová, Tomáš Javůrek, was approached by MeetFactory curators Tereza Jindrová and Eva Bláhová to prepare a project on artificial intelligence and art. We initially concentrated on figuring out how to approach these fundamental issues and challenges, but we also wanted to steer clear of the conventional curatorial method because it would either not provide an answer or would provide a very oblique one.

Our curatorial approach was founded on challenging the general public's romantic, science fiction-based notion of artificial intelligence. We intended to step-by-step conjure up artificial intelligence for the audience and portray it in a grotesque shape, i.e., the one we believe best matches it. First and foremost, we sought to free the relationship between art and artificial intelligence of the assumptions that accompany its anthromorphization... Marie Meixner quoted Weizenbaum in this context:

> *"And since the domain of human intelligence is, except for a small set of formal problems, determined by the humanity of man, any other intelligence, however great, must necessarily be remote from the human domain."* (Weizenbaum, J., 2002, p. 94).

Intelligence does not have to be human in order to be intelligent. However, digital technology, including AI, might be viewed as a prosthetic limb that we never had. (Fabuš, P., 2019, pp. 75–91). The capabilities of AI can then be viewed as those of a human who is highly superior only in a relatively narrow domain.

> *"In our project, the provocative word Idiot plays a role in the basic vulgar diagnosis of a possible relationship between the aforementioned agents. Since the clinically outdated diagnosis Idiot Savant captures very well the capabilities of current learning algorithms, the vulgar and offensive connotations are taken from spoken language to strongly emphasize the hidden extraction mechanisms. As described by McKenzie Wark in her book Capital Is Dead: Is This Something Worst? the vulgarity of spoken language is probably one of the few artistic strategies that can clearly highlight the written – machine-executed – language of learning algorithms (i.e., vectors)"* (Metazoa-Org, & Javůrek, T., 2021).

Importantly, aesthetic objects in the context of learning algorithms can be viewed not just as their outputs, but also as the forms required for learning them (databases, interpretive frameworks, parsing, tagging, categories, etc.). Seeing these objects in the context of artistic production is not automatic. Their direct representation is practically non-existent, and we must resort to a not so appealing visualization, which is frequently furnished by graphs and explanatory words. A further obstacle is that creating and reading such graphs and texts requires interdisciplinary knowledge and experience. Nonetheless, there are a growing number of perceptive authors and teams who can effectively unpack these objects, Including, but not limited to, Vladan Joler, Trevor Paglen, Lev Manovich, Joanna Zylinska, and numerous others. However, the difficulty of working with these objects persists because we have a hard time identifying artistic expression, artistic strategy, shorthand, gesture, or style in them, which are attributes we consider to be fundamental to art.

In his text *Objects in Mirror are Closer than They Appear*, Timothy Morton mentions Socrates' conception of art as something that is not a representation but a display of inner demonic forces to illustrate that art is not about interpretation or capture but rather attunement to the inhuman. (Morton, T., 2013, pp. 15–39). This view is very similar to what we propose as the enabling framework for an artistic perspective that reflects learning networks and captures our working process in the exhibition AI: All Idiots. Artificial intelligence is a complex tool that we as artists learn to play, that is, to create art, by tuning in. The process of tuning, according to Morton, involves improvisation, which is a juxtaposition of reading and writing.

A SERIES OF IDIOTIC DECISIONS

To demonstrate the relationship between art and AI as closely as possible in accordance with artistic practice, we chose to adopt a strategy similar to that advocated by Morton, namely "tuning in" to art and artificial intelligence. In analogy to the nature of the decisions made automatically by algorithms and their programmers, we have focused on making the individual actions and decisions we make within the project almost slavishly and 'idiotically' straightforward, purposeful, seemingly logical, or determined by the capabilities of the available technology, i.e. those that appear neutral, invisible. In line with the attempt to approach the character of artificial intelligence, we have decided to invert the role of man and machine. Artists have "tuned in" to the logic of the dataset and produced their own outputs, which can be seen as the work of production that we usually attribute to tools or machines. As unambiguous as the connection between the artistic and production roles may seem, the process of making art is in many ways similar to the process of algorithm performance.

By assigning a production role to the artists, we also wanted to capture and identify the automated, and therefore seemingly neutral, steps in the process of material collection and network learning as significantly creative. In this way, we were able to show the artistic practices that underlie learning algorithms and offer a vision of what "other" knowledge artificial intelligence provides. To live up to this, we have tried, at least to some extent, to let go of the artistic and human expectations associated with the results of our work. The individual results on display in the exhibition then show the limits of our ability to avoid these expectations.

You could say that the first *idiotic* decision in the project was that the artificial intelligence related to art would be trained on a dataset of artworks. And since the exhibition is intended for a domestic audience, we targeted the field of contemporary Czech art directly, and therefore Czech artists. But the very next and key question is, who is the contemporary Czech artist? In many cases, the status of the artist is obvious. Many other people have studied art, have their own web presence, but do not pursue it professionally. Some consider themselves artists, but the art world does not reflect that. Others believe that what resonates in the media today will be forgotten tomorrow and artworks that are not currently seen in major galleries will be written into art history. There are many folk artists who are popular, but galleries do not exhibit them. Artists working with traditional art techniques, on the other hand, tend to look down on conceptual artists and digital art. And who is a Czech artist? Is it one who works in the Czech Republic or one who was born here? Who is and is not a contemporary artist? There are a number of problems. And it goes without saying that the definition of an artist is very blurred. Moreover, the question of who is and is not an artist is linked to an even more complex question: what is and is not art? This question is answered not only by each artist, curator, gallery critic and viewer, but also by each work of art on its own. What is and is not art is, moreover, one of the questions that should remain open.

We found the answer in line with engineering practices applied to complex problems, which we can also encounter in the inner workings of learning algo-

rithms. We determined that we would be able to capture visual representations of modern Czech art in our digital dataset. Having a presence on the internet is a necessity for a contemporary artist. The artist's website includes samples of their work, a description of their focus, a structured biography, and a list of their accomplishments. Numerous gallery open calls and contests require an online portfolio already. There is an emphasis on professional aesthetics and succinct descriptions in documentary photography. The choice of keywords and proper search engine optimization are also important. However, this presentation carries the risks associated with putting any content on the internet, as well as risks in relation to the works. Regardless of how well-considered the description or photo evidence is, it does not correspond to the artwork. Presentation in varying proportions distorts by translating a work created in one medium into another medium (Figure 5). This practice can retrospectively affect the form of the art.

We obtained the list of Czech artists and their websites from the Artlist database, a non-profit project of the Center for Contemporary Arts Prague, which presents a representative sample of artists involved in the development of contemporary Czech visual art since the second half of the 20th century, with an emphasis on the post-1989 period.

> *"The initial source for the exhibition AI: All Idiots is therefore an image dataset containing material that Czech artists originally presented on their own publicly accessible websites or blogs. Together, these portfolios provide the curious AI with over half a million digital photographs and images. Is this enough for AI to form a picture of contemporary Czech art and be able to replicate its output?"* (Javůrek, T. & Meixnerová, M. & Trnková, B., 2022)

F I L M

Jana Bernartová, one of the exhibiting artists, recognized that by sequentially presenting individual photos from the dataset in a human-perceivable amount of time, a distinctive animation with artistic elements is formed that, at first appearance, mimics cinematic experimentation. The removal of images from their original context and their presentation in new constellations is one of the common means of artistic expression already established by the historical avant-garde. However, in relation to the original material, it is also a significant authorial intervention. Animating the collected material may appear to be a straightforward method for introducing the audience to the dataset's content. However, this piece highlights the significance of a creative contribution that only removes the work from its original context (Figure 6).

Figure 5: An example of a photograph from the vernissage, Jan Mlčoch, http://www.mlcoch.net/, dataset AI: All Idiots, 2021

In the film format, we see at once the expected and surprising diversity of the collected material. We see photographic documentation of varying quality of art of different genres, techniques, materials, and styles in rapid succession. Photographs of wholes pieces, cut-outs, details, portraits of artists with their works, documentation of exhibitions and openings. However, there are images that we do not regard to be photographs of art for various reasons. There are images that attest to the artists' various activities, such as their mountain treks, travels, leisure time, etc. For example, Václav Fiala also has a database of Šumava tourists with sensitive data on his website. Another problem was the website of the late artist Ján Mančuška, , which was hacked at the time of the exhibition. It would not have been easy for either an automated machine or an informed person to sort the images satisfactorily into the correct categories. In fact, it would be very difficult to establish these categories at all. It would probably be a lengthy process supported by art historical and aesthetic research and other considerations on such a complex subject. Moreover, while watching the film, we are overwhelmed by the feeling that art should be viewed more slowly and with more concentration and care, but the film moves mercilessly along. The passage of time also reminds us that this is merely extracted anonymized material that is treated schematically. By extracting the data, its original context is lost, exposing the meaning and complexity of that original context.

"First of all, artificial intelligence has to process an enormous amount of images from the dataset. The speed at which it does so is incomparable to man. It learns in a matter of weeks or months, the computational process however, would take a human being several lifetimes.The difference between perception and processing which is human and which is artificial, between perception and processing which is fast and which is long, is accentuated in the film and installation by Jana Bernartová. Man can survive without sleep for a maximum of 8 to 11 days. After being awake for such a long time, humans would find themselves in serious jeopardy of death. Please concentrate and try to watch the film for as long as physically possible. To be able to do so, the film environment or installation provides you with elements stimulating the human senses."
Aimee's monologue – digital guide to the exhibition AI: All Idiots

A N I M A T I O N

Removing images from their original contexts is an opportunity for new reflection. But in the world of automatic machines, we see the creation of new contexts in an accelerated process. In fact, the data needs to be sorted before the actual learning can begin. In most cases, feature extraction is necessary in order to optimize the data to achieve the desired learning outcome. The data is sorted into sets and clusters. The optimization and sorting results in a balanced dataset. In the case of the AI: All Idiots dataset, we only removed the too small images of the web page features used for navigation from the dataset. The dataset was left deliberately unbalanced to draw attention to issues related to the sorting of category-defying art, where context and a variety of other factors play a crucial role. A sculpture is connected to the space where it is placed, the installation design is also part of the message of the work, we have a long tradition of conceptual and immaterial art, many artworks refer to something else, build on something else, etc. An example of how difficult it is for someone unfamiliar with the context to know what is and is not art is when gallery staff who, unintentionally in good faith, acciden-

Figure 6: Jana Bernartová, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

tally clean up part of an artwork. The categorization of art is a delicate, time-varying dialogue that runs parallel to its creation, involving artists, theorists, curators, gallerists, critics, historians, and viewers, all of whom could hardly agree not only on classification but also on categories. The simple, accelerated labelling that would be required to prepare a balanced dataset is, in our view, beyond (not only) art.

Matěj Smetana is an artist known for experimenting with the possibilities of animation and the idea of an algorithmically moderated dataset intrigued him. By automating the ordering of images in the dataset according to a certain key, four films were created with a specific narrative based on the conflict of original and emergent contexts (Figure 7).

> *"Artificial intelligences excel in recognizing patterns and extraordinary mechanical memory... They are geniuses and idiots at the same time; idiot-savants. The dataset can be sorted in various ways. Half a million images can be arranged according to their similarity, colour, composition of image elements; their size, symmetry, shapes and so on... Sorting is the basics of Artificial Intelligence. Thanks to sorting, AI can learn various things. We humans perceive the rapidly changing images – in some way similar – to a movement; simple animation; This effect is caused by the persistence of vision and the processes in the human brain. By simple sequencing of images connections are created perceivable only by human beings, that are hidden to artificial intelligence. This is another big difference between how the dataset is perceived by oneself and by artificial intelligence. Sequencing 136 458 images according to one clue has taken the artificial intelligence approximately fourteen days. There are four sequences in the installation: created by visual similarity, color, composition and surface and lines. Matěj Smetana has placed the simple animations on top of four robot vacuums, and let them cruise the Meet Factory. The vacuum cleaners represent the seemingly utilitarian development of artificial intelligence development and of technology in general. When installed in the gallery, the vacuums steal away the job of cleaning workers, as artificial intelligence is expected to do in a number of professions. But these robots are just relatively stupid automatons. This is not the first time robot vacuums have been used in a gallery installation. In relation to this topic it can even be considered an ironic installation cliché."* Aimee's monologue – digital guide to the exhibition AI: All Idiots

R E P R E S E N T A T I V E

Through extractive, selective, and sorting processes, algorithms reduce and trivialize the complexity of the original situations. Reduction and subtraction belong to the palette of techniques used for artistic expression, for example in sculpture. In our project, we thematized reduction through its hyperbolization: a single representative of the entire dataset was displayed in the gallery installation of the exhibition (Figure 8).

> *"One image has been randomly chosen from the collected dataset - a digital reproduction of a painting, which was later loaned for the exhibition to stand as a representative of the whole database collection. A thumbnail image selected by the algorithm."* Aimee's monologue – digital guide to the exhibition AI: All Idiots

S T A T I S T I C D A T A

> *"The chart on the wall is based on the original complete dataset of the Czech art scene created for the AI: All Idiots project. Who are the heroes? Who are the outsiders? Who is the best Czech artist? Only when you understand the data can you start the teaching process. The dataset serves as a source material for artificial intelligence I have trained, as well as for invited mediators from the ranks of artists: Andreas Gajdošík, Vilém Duha, Matěj Smetana, Jana Bernartová, Barbora Trnková, Tomáš Javůrek.*
>
> *In Meet Factory, they present artistic outputs based both on the dataset and on the outputs of the artificial intelligence that is also processing this dataset. The crude language of numbers and comparisons, rough cuts into the soft matter."* Aimee's monologue – digital guide to the exhibition AI: All Idiots

We have downloaded 800 names of artists from Artlist.cz. Almost half of them did not have their own websites. 476 artists had websites, but only 456 were active. 20 had a website, but it was not possible to download images from them. Only 398 addresses could be used to fill up our database. We used a bot programmed on the Nightmare library to automatically aggregate image data from websites.

In order to show how the artificial intelligence software analysis performed on the datasets, we distinguished female artists from male artists. The simplest way to use the algorithm to separate these two groups was to use the Czech spelling rule in our case, since the dataset primarily contains Czech names, and identify the women in the dataset by the surname hyphenation flag of the ending *-ová*. The statistical deviation, i.e., the number of female artists who do not hyphenate their surnames, appeared negligible in terms of pragmatic data. There were 565 male artists in the dataset, but 192 female artists, or only one third (Figure 10). Furthermore, the data show that women have proportionally more active

Figure 7: Animation on vacuum cleaners, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

pages and about one-fifth fewer image documents on their websites. Statistical access to the collected data allowed us to determine the level of image documentation on the websites, i.e., which artists have the most (*Matky a otcové* / Mothers and Fathers, 15, 230 images) and the least (Tomáš Vaněk and others, one image each) on their websites (Figure 11). The StyleGan2 neural network processed the image dataset in 27 days, 1 hour and 52 minutes, consuming 117 kWh of electricity to do so (Figure 9).

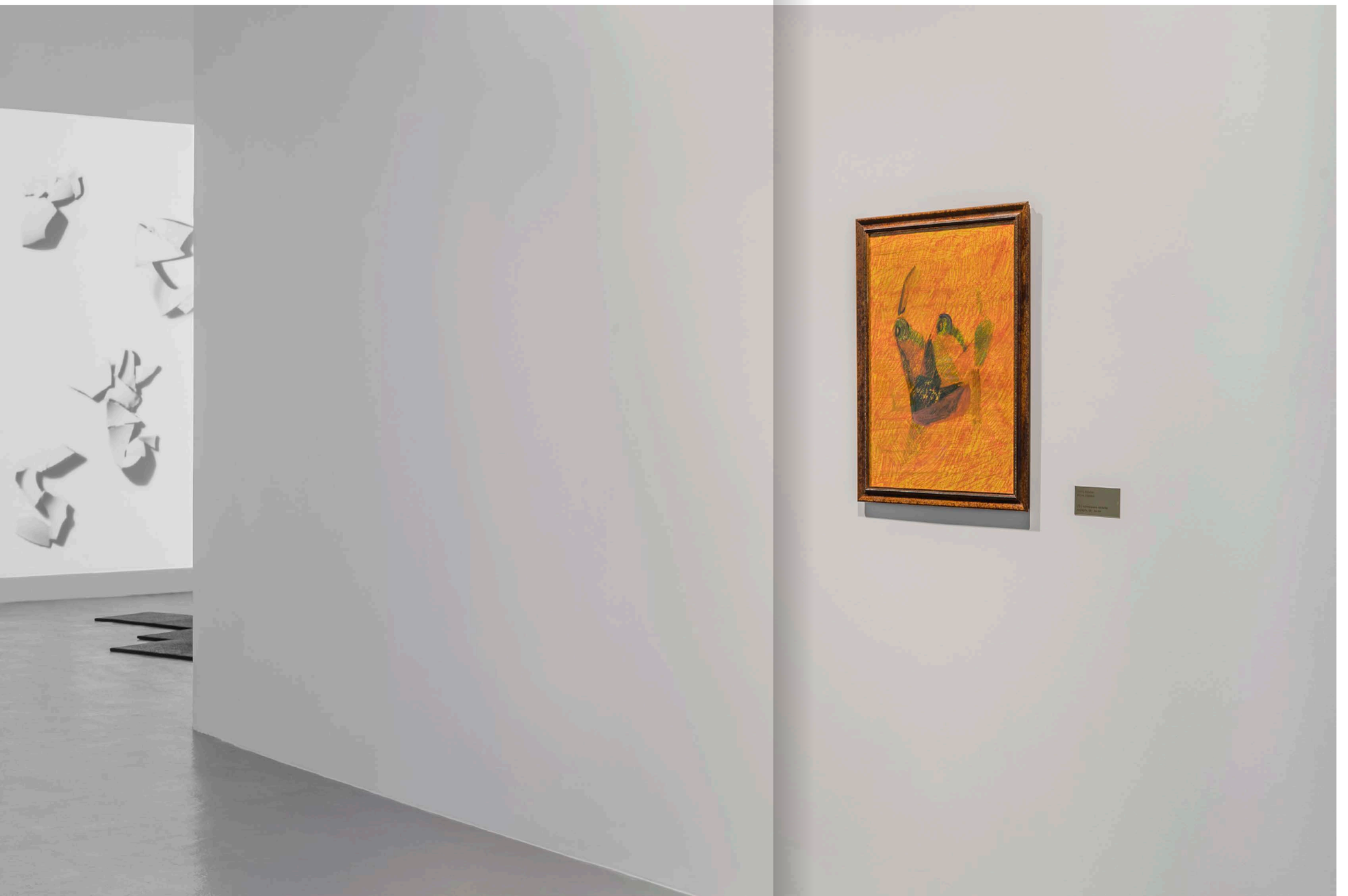


Figure 8: Ondřej Maleček: Oči na stopkách (Eyes on Stalks), AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

Figure 9: A view of the exhibition, Statistiky na stěně (Statistics on the Wall), Tomáš Javůrek, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

Figure 10: Example of a visualization detail of the statistics of the AI: All Idiots dataset on the wall, comparing male and female artists in relation to the number of active pages and images on them.

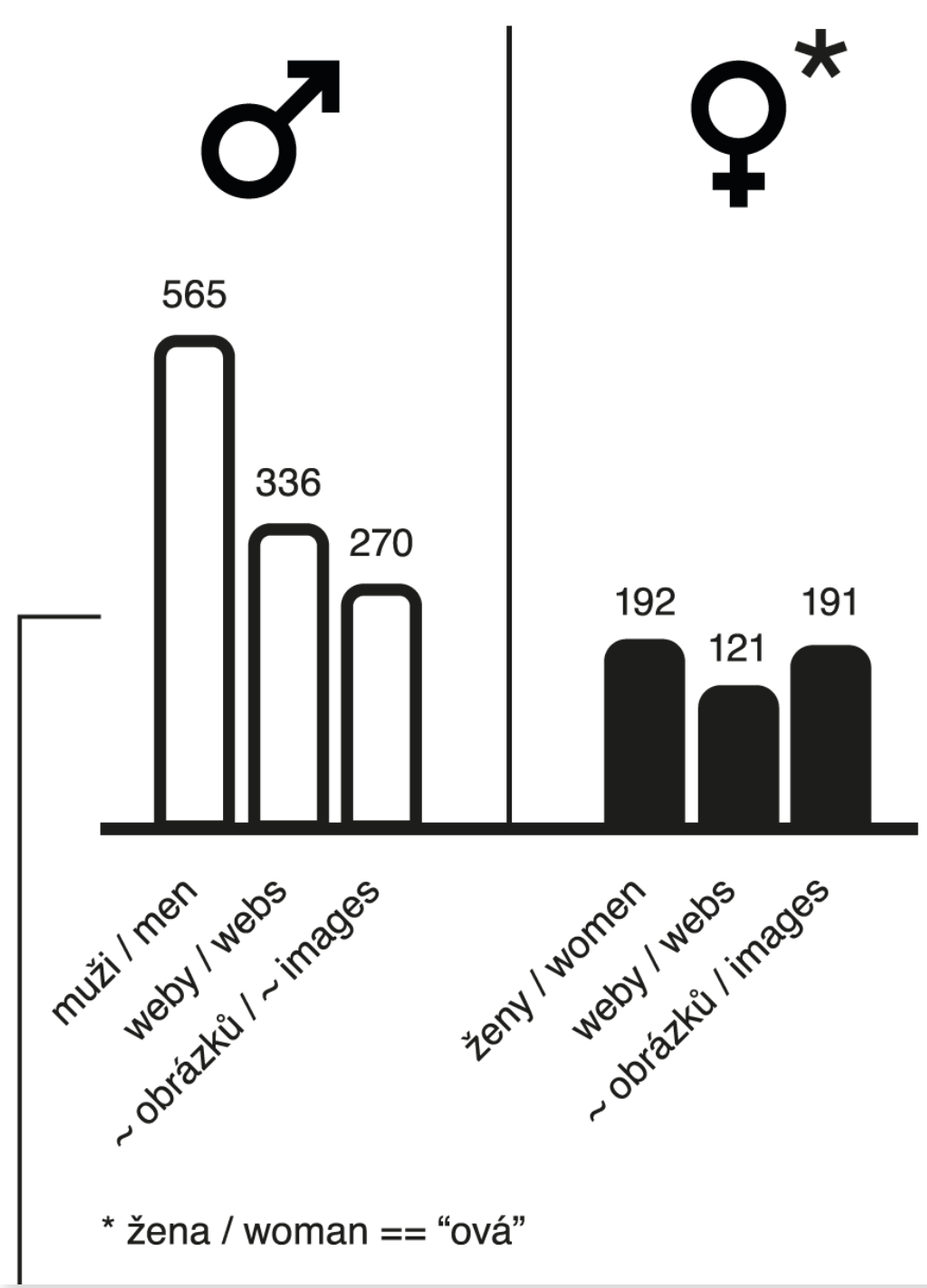


Figure 11: Example of a visualization detail of the statistics of the AI: All Idiots dataset on the wall, comparing the number of images that artists have on their websites that we could download using our method.

S H O W C A S E

Artists understandably try to make the presentation of their art on the internet look appealing. Their websites therefore often conform to contemporary ideas of an attractive web presence. My video is another form of self-reflection on artistic practice. It is a dataset presentation in which I situate myself in a kind of animated browser. In the language of Youtube videos, I write and show the names of the artists represented on camera with smiles. In this way I mimic the work of a 'ring girl' in a web presentation environment (Figure 12).

Dataset analyses are another case of representing traditional and emerging images of social reproduction in the online context. The online space creates the illusion of a more democratic background for social interaction. For instance, it makes it easier to perform under multiple identities, and it liberates many forms of care that were previously unpaid for (ASMR videos, etc.). Even through the practice of a recommendation guide, which has been transformed in the online environment into an activity of learning algorithms, is not immune to the pervasiveness of gender stereotypes in our society. In addition, the gaze through the screen, or the gaze of the camera, is always extremely aestheticized, spectacular, and fetishizing. It imports an agenda derived from a cinematic language, that remains a vehicle for the sublimation of a range of hitherto unreflected issues, and is closely linked to marketing strategies. The camera exploits the soft tissue of the people and creates a pressure for visibility that escalates when combined with the apparent timelessness of the online environment.

I N L I N E S

> *"In order for the AI to read the images and learn to recognize them, it must first decompose them into rows, into individual pixels arranged side by side. It then compares them to each other. If each image in our dataset was decomposed into a single line that is 1 pixel high, and we also wanted to rearrange the entire dataset in this way, print it out and display it in a gallery, we would get a color print of 262,144 x 136,458 pixels, which is 53.33 GB. With current technology, however, it is not possible to print such a huge image; it is not even possible to display it on a regular computer. So, we can only approximate its visual structure through a 100 times smaller preview to give you an idea."*
> (Javůrek, T. & Meixnerová, M. & Trnková, B., 2022)

Another opportunity where we can visually evaluate one of the technical processes associated with AI learning is the decomposition of a dataset into rows. This step permanently breaks down the human-understandable content of the image and creates a pure abstraction, which in turn begins to make sense to the machine on a mathematical level. As artists, however, we were intrigued by the colorfulness of this abstract result. We expected to see grey, as the dataset contains many black and white photographs, typographies, and records of graphic sheets of various graphic techniques and views of interiors where the predominant tonality is white and grey. However, green is also significantly represented in the result. This is probably due to the photographs of the artworks on the exterior. In the spirit of the project's hyperbole, however, we can now declare that Czech art is on average olive green, even grey (Figure 13). The color analyses of the datasets provide another field for possible correlations between artificial and artistic perception.

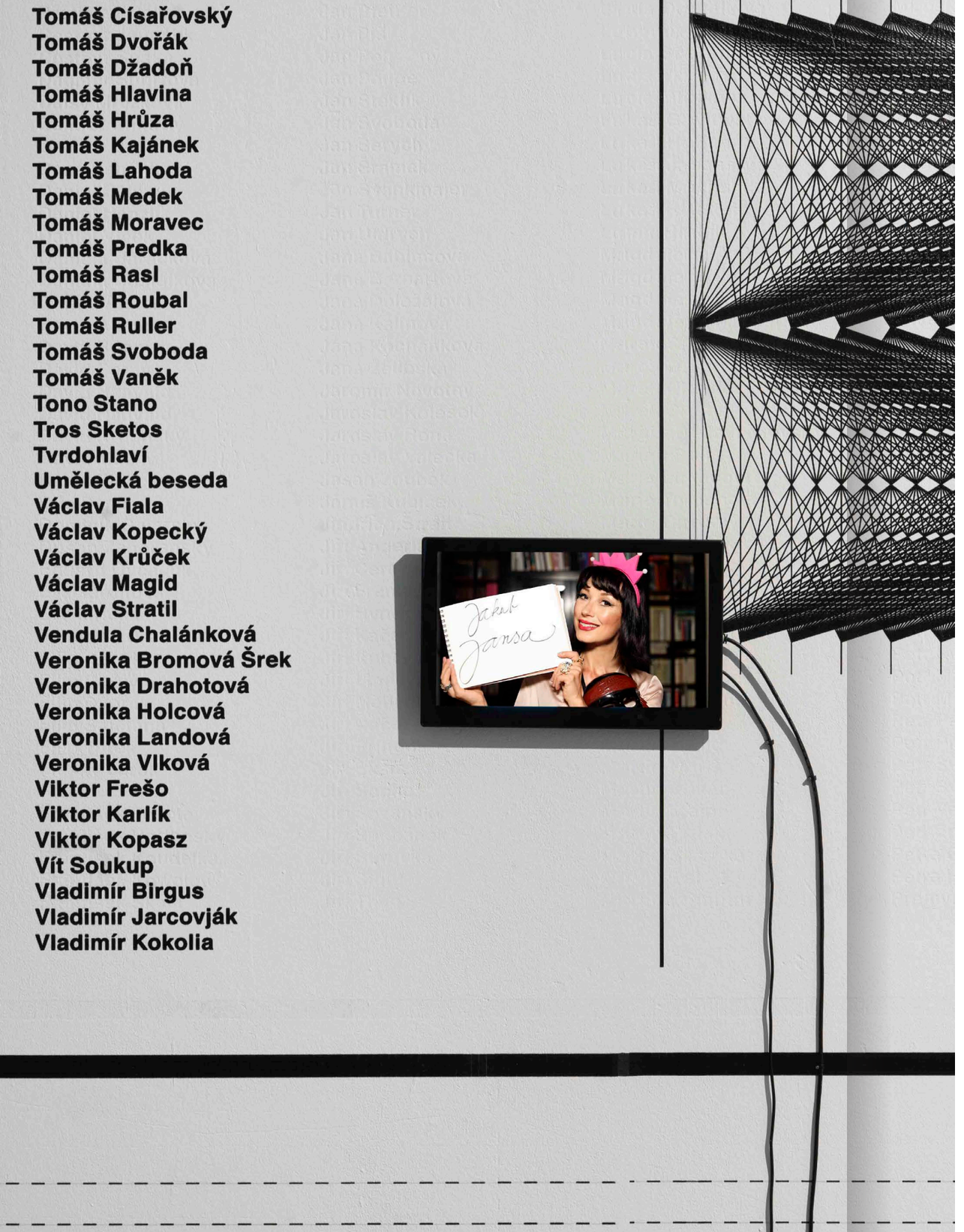


Figure 12: Showcase, Barbora Trnková, AI: All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

M O C K U M E N T

"Andreas Gajdošík and Vilém Duha have uploaded the works contained in the dataset into the Google Open Images crowdsourced dataset to tag them as art. Before that, this tag had contained just an insignificant number of items. As a result, neural networks which will be taught on this popular dataset in the future shall perceive the notion of art in favor of the Czech visual art. A documentary is devoted to the potential impact of this action."
Aimee's monologue – digital guide to the exhibition AI: All Idiots (Figure 14)

It is an artistic gesture expressing the authors' good-natured effort to make Czech art visible not only on the world art scene, but even to confuse what will be understood as art in the future with Czech art. The creators uploaded a large part of the All Idiots dataset through *Google's Crowdsource* application and web interface to Google's *Open Images Dataset*, which contains nine million images and from which other learning algorithms most often draw. The hypothesis and conceptual intent was that by creating a surfeit of Czech art in the category/tag "art" in a major dataset, a position of power will be gained that can potentially manifest itself in the future – artificial intelligence of the future will understand the category of art based on examples of Czech art, i.e., the category of art for artificial intelligence will potentially fully merge with the category of Czech art. However, it was more important to emphasize the important role of dataset content in the development of learning networks.

Figure 13: A miniature dataset decomposed into lines, AI: All Idiots, Tomáš Javůrek, print screen: Barbora Trnková

Figure 14: Mockument, Andreas Gajdošík, Vilém Duha & Petr Racek: view of the installation, AI All Idiots, the MeetFactory Gallery, Prague, 2021, photo: Katarína Hudačinová

J O K E S

"The section through the Czech art scene through the prism of machine learning has its weak spots however. Jokes are a very specific form of human expression; they are based on building an expectation and the following violation of this expectation. For artificial intelligence, the level of violation is extremely difficult to grasp. The jokes at the All Idiots exhibition confront the frequent artists' self-ironic sense of humor, humor as an artistic strategy, and the issue of artificial intelligence having a sense of humor of its own. The jokes which are read by Vladimír Havlík, were created by artificial intelligence using the names of Czech fine artists. I don't think AI understands jokes. But it is quite funny. Art needs to be taken seriously." Aimee's monologue – digital guide to the exhibition AI: All Idiots (Figure 15)

The jokes were created using collected names of artists and artists and jokes about blondes and Chuck Norris, which we also downloaded from the internet. Subsequently, in all the jokes about blondes, the word blonde was replaced with the names of the artists. While the name Chuck Norris was replaced by the names of the female artists in the jokes. We had the text dataset thus modified processed by the artificial intelligence text synthesis tool Generative Pre-trained Transformer 2 (GPT-2) from OpenAI lab.

While it cannot be said that AI has a sense of humor, jokes created by AI are often humorous. This is because of the nature of jokes and funny situations, which are based on the creation of expectations and the sudden violation of those expectations. The effect of suddenly turning a tense expectation into nothing is common to both jokes and artificial intelligence output. But jokes can also be very valuable tools for education. They can convey complex information in a nutshell, without sacrificing

the content. Understanding a joke requires the active participation of the audience, their mental involvement, thus keeping their attention alert, and also allowing the listener to figure out the punchline on their own, making it easier to remember the information. (Kramer, C., 2009). However, jokes should also be viewed critically. If we joke about relationship issues with our friends, we may lose the motivation to settle these conflicts with our partner. Tension is alleviated by laughter, which should lead to a resolution. Ambivalence is similarly related to the subject of comedy. What is appropriate to make fun of in a given context, and what could be deemed bullying and demeaning? Similar to learning algorithms, jokes frequently confirm and perpetuate stereotypes.

Sample jokes AI: All Idiots:
Barbora Dolarová can reveal the past.
Barbora Dolarová doesn't go on the internet because the internet knows.
Barbora Dolarová can build a snowman out of cow milk.

Question: Why is Tarín Ford like a sheep?
A: They can't be goats.
Question: What do you call Tarín Ford when 90% of his intelligence is gone?
A: Divorced.

Question: What do you call the skeleton in the closet with Jiří Frický?
A: The winners have been hiding and looking for the last few years.

G E N E R A T O R

"Based on this learning process, artificial intelligence generates new image material - it seeks to create new Czech visual art. Naturally, the larger and more precise the original dataset, the more accurate the AI outputs will be. To compare: the dataset This person does not exist contains seventy thousand images of human faces. The faces that are artificially generated based on this dataset are hardly distinguishable from the actual human ones. Using one billion photographs of stones would most likely result in a convincing digital image which would feel like a photograph of a real stone. Using only a hundred photographs of stones would not give such an accurate result. The question is: is the on-line self-presentation of the contemporary art scene enough? And is Czech art uniform enough to be imitated by artificial intelligence? You can communicate with our artificial intelligence and generate your own new and original Czech art. Use the app in this room."
Aimee's monologue – digital guide to the exhibition AI: All Idiots (Figure. 18).

Tomáš Javůrek has programmed the mobile application AI: All Idiots. Using the phone, the user retrieves a QR code from the website at https://datatata.info/all-idiots/hit/ and can generate a new generation of Czech visual art – the outputs of the trained network AI: All Idiots (Figures 20-22). The application also offers the possibility to influence the resulting image with the truncation parameter, which shows the generated image in its more complex and simpler form (Figure 17).

Figure 15: Jokes, Barbora Trnková, Tomáš Javůrek, AI: All Idiots, the MeetFactory Gallery, Prague, view of the installation, 2021, photo: Katarína Hudačinová

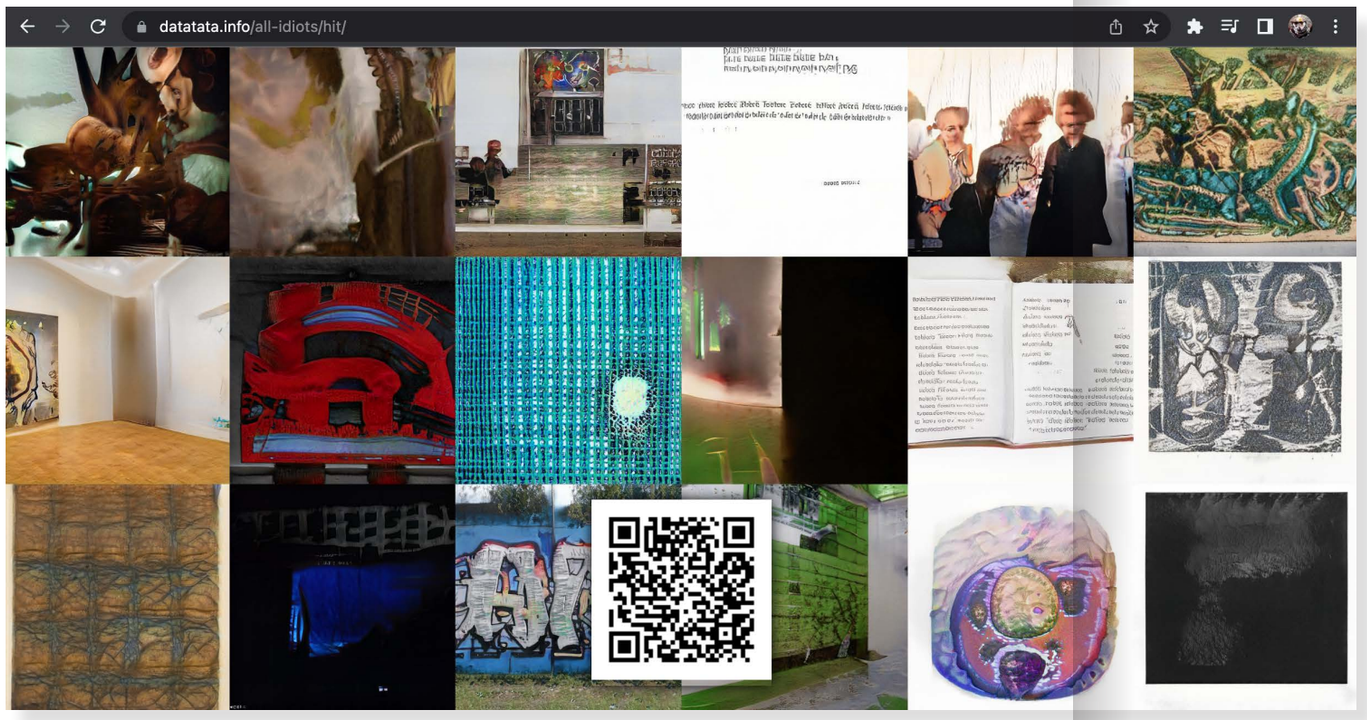
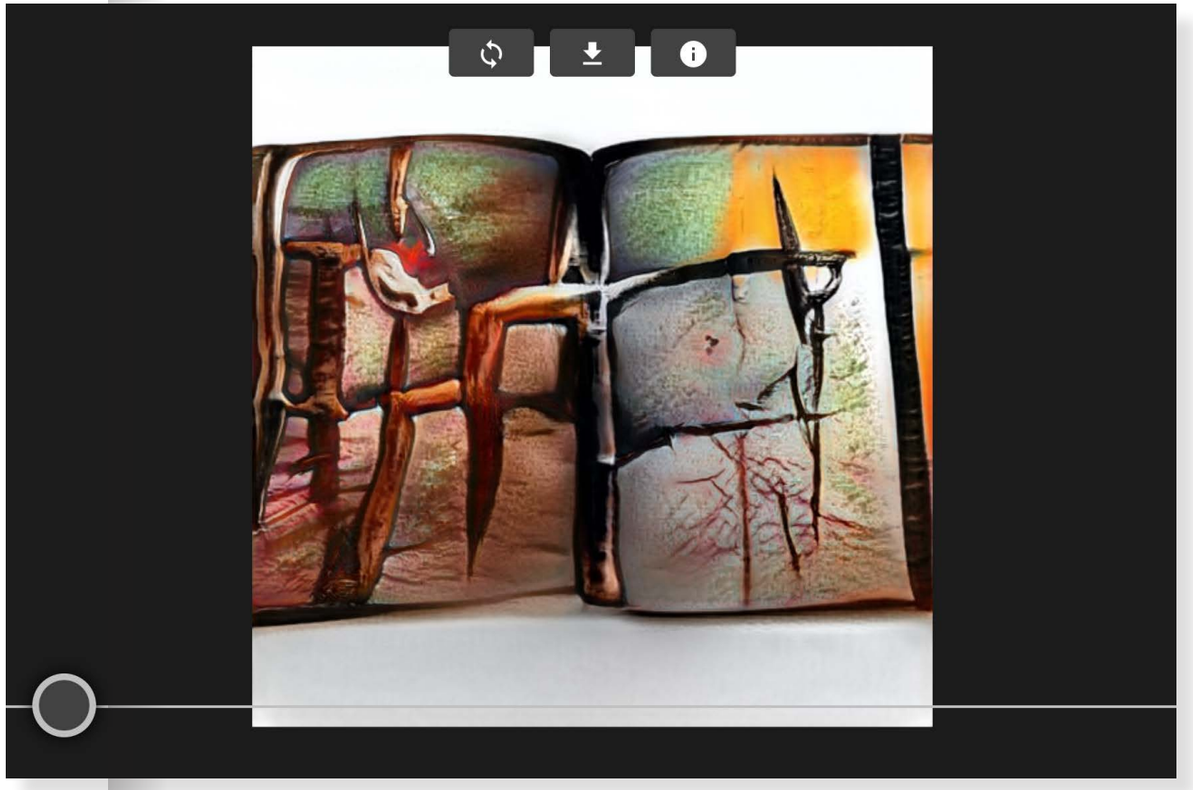


Figure. 16: Application AI: All Idiots, Tomáš Javůrek, print screen, Barbora Trnková, 2021

Figure 17: Example of the effects of the truncation parameter in AI: All Idiots. Phase 1, middle and 2.



Subsequently, the image can be sent to the left or to the right, allowing the visitor to decide whether or not they think it is a work of art. The selected images are then stored in the collection. This is an interactive game that can be played by two or more players. Evaluating the generated images based on subjective judgement is a simple task that waits at the very end of a long chain of automated processes. The viewer becomes more of an observer of the completed process, whose tastes, demands and questions influence the output only minimally.

In a recursive process of reflection, the visually impressive outputs of the AI: All Idiots network have become the subject for the work of Czech painters. Who is the author of the resulting artwork? And is it a work of art at all? How different is this software from the hired Chinese painter-workers redrawing photographs for the Western world? This analogy was the subject of Aimee Zia Hasan's artwork, which reproduced some of the images generated by artificial intelligence software. (Figure 19). Another case of recursion is the placement of information about participation in the AI: All Idiots exhibition on the website of the artist whose images are part of the dataset. We observed this, for example, on the website of the artist Jiří Šigut.

C O N C L U S I O N

How could art engage in a creative dialogue with a world co-created by digital technologies and learning algorithms with their own agendas, without falling prey to a mechanical confirmation of stereotypes? The source of artificial intelligence's creativity draws from tuning expected and unexpected patterns and schemas. Like a sensitive photographic material, the architecture of art's hidden structures is gradually revealed, intensifying the characteristics of the prejudices and habits we connect with art. If art is defined as revealing the invisible, then artificial intelligence is an useful artistic instrument. Ultimately, a tool suitable for removing existing cultural and aesthetic objects – whereby the Pokémon have flooded our view with in the past without noticing.

Figure 18: Animation from generated images, Barbora Trnková, Tomáš Javůrek, view of the installation, the MeetFactory Gallery, Prague, 2021.
photo: Katarína Hudačinová

Figure 19: Painted over images from AI: All Idiots, Aimee Zia Hasan, oil on canvas, 2021, photo: the MeetFactory Gallery

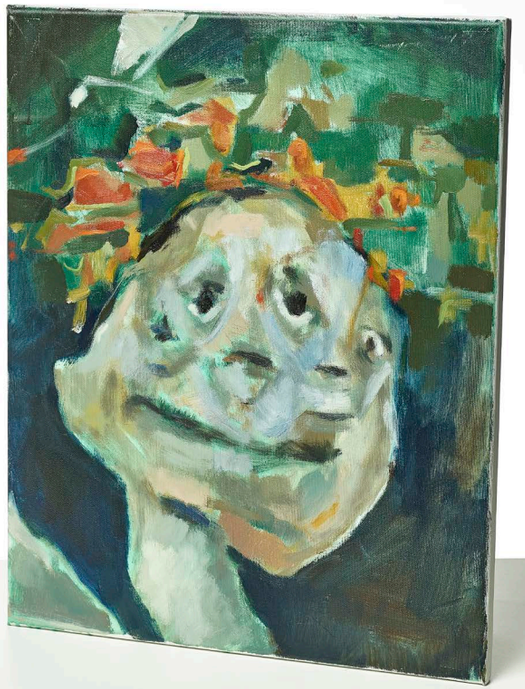


Fig. 21: Example of generated image, Barbora Trnková and Tomáš Javůrek, AI: All Idiots, 2021 (2)

Fig. 20: Example of generated image, Barbora Trnková and Tomáš Javůrek, AI: All Idiots, 2021 (1)

Fig. 22: Example of generated image, Barbora Trnková and Tomáš Javůrek, AI: All Idiots, 2021 (3)

REFERENCES

BBC. (2022, August 24). *Ai rapper Fn Meka dropped by Capitol over racial stereotyping*. BBC News. Retrieved November 13, 2022, from https://www.bbc.com/news/news-beat-62659741

Databáze současného umění: Artlist - Umělci. Artlist. (2015). Retrieved November 13, 2022, from https://www.artlist.cz/

Dazed. (2022, August 26). *Who is FN Meka, the AI rapper cancelled for digital black-face?* Dazed. Retrieved November 13, 2022, from https://www.dazeddigital.com/music/article/56833/1/who-is-fn-meka-the-ai-rapper-cancelled-for-digital-blackface-capitol-gunna?utm_source=facebook&utm_medium=social&utm_campaign=dazedf-b&fbclid=IwAR1aGFu9NeHnUKHFAtBFzB4MocfqeJ55XfAfN3JmWCIwBwwzq0rsw6Jri-OQ

Fabuš, P. (2019). Datatata: Data and Art 2019 . In *Artificial Affirmation: Common Sense to the Nth Power* (pp. 75–91). Brno, Česká republika; FaVU VUT.

Javůrek, T. (2021). *AI_All Idiots_app*. All-idiots/hit. Retrieved November 13, 2022, from https://datatata.info/all-idiots/hit/

Javůrek, T., Meixnerová, M., Trnková, B. "AI: All Idiots." *MF Gallery Reader*, MeetFactory, 3 June 2022, https://galleryreader.com/exhibition/ai-all-idiots/.

Joler, V., & PASQUINELLI, M. (2020). *The nooscope manifested: AI as instrument of knowledge extractivism*. The Nooscope Manifested: AI as Instrument of Knowledge Extractivism. Retrieved November 12, 2022, from https://nooscope.ai/

Kramer, C. (2009). *The philosophy of humor (part 3): First Tuesday Lecture Series, Rock Valley College, 3/6/2009*. Academia.edu. Retrieved November 13, 2022, from https://www.academia.edu/video/lmK5Zj?email_video_card=title&pls=RVP

Kulka, T. (2002). *Kitsch and art*. The Pennsylvania State University Press.

Manovich, L. (2018). *Ai aesthetics*. Strelka Press.

Metazoa-Org, & Javůrek, T. (2021). *Metazoa-org/all-idiots: The project ai: All idiots*.

GitHub. Retrieved November 13, 2022, from https://github.com/metazoa-org/all-idiots

Midjourney ai art generator from text. Vivipic. (2022, July 18). Retrieved November 12, 2022, from https://blog.vivipic.com/us/midjourney/

Midjourney. (n.d.). Retrieved November 12, 2022, from https://www.midjourney.com/home/

Morton, T. (2013). Introduction. In *Realist magic: Objects, ontology, Causality* (pp. 15–39). essay, Open Humanities Press.

NVlabs. (n.d.). *NVlabs/stylegan: StyleGAN - Official Tensorflow Implementation*. GitHub. Retrieved November 13, 2022, from https://github.com/NVlabs/stylegan

Open images dataset V7 and extensions. Open Images V7. (n.d.). Retrieved November 13, 2022, from https://storage.googleapis.com/openimages/web/index.html

Openai. (2021). *Openai/GPT-2-output-dataset: Dataset of GPT-2 outputs for research in detection, biases, and more*. GitHub. Retrieved November 13, 2022, from https://github.com/openai/gpt-2-output-dataset

Segmentio. (n.d.). *Segmentio/nightmare: A high-level browser automation library.* GitHub. Retrieved November 13, 2022, from https://github.com/segmentio/nightmare

Stassen, M. (2021, April 1). *This robot rapper has 9m followers on TikTok. the company that created him thinks traditional A&R is 'inefficient and unreliable'*. Music Business Worldwide. Retrieved November 13, 2022, from https://www.musicbusinessworldwide.com/this-robot-rapper-has-9-million-followers-on-tiktok-his-creator-thinks-traditional-ar-is-inefficient-and-unreliable/

Šigut, Jiří. "Šigut." *Group Exhibitions | Šigut Jiří*, http://www.sigut-jiri.cz/en/cv-1/group-exhibitions/.

Weizenbaum, J. (2002). In *Mýtus počítače* (pp. 94–94). Moraviapress OPS.

Wikimedia Foundation. (2021, November 10). *Truncation*. Wikipedia. Retrieved November 13, 2022, from https://en.wikipedia.org/wiki/Truncation

Wikimedia Foundation. (2022, September 8). *GPT-2*. Wikipedia. Retrieved November 13, 2022, from https://en.wikipedia.org/wiki/GPT-2

Žižek, S. (2017, November 7). *Ideology is the original augmented reality*. Nautilus. Retrieved November 13, 2022, from https://nautil.us/ideology-is-the-original-augmented-reality-2-236875/

LIST OF CITED ARTWORKS AND CURATORIAL PROJECTS

AI: All Idiots, the MeetFactory Gallery, Praha, (2021), curators: ScreenSaverGallery, Implementation: Bernartová, J., Duha, V., Gajdošík, A., Hasan, Z. A., Havlík, V., Javůrek, T., Meixnerová, M., Racek, P., Smetana, M., Ševců, P., Škapa M., Trnková B., Technical execution: Javůrek, T., Jeřábek, K., Pražák, J., Exhibition architecture: Tomšů J., (Exhibition partners: State Cultural Fund of the Czech Republic ● Faculty of Fine Arts, Brno University of Technology ● Technology Agency of the Czech Republic)
Bernartová, J. & Javůrek T., *AI: All Idiots - Film,* video, MeetFactory Prague (2021)

Bláhová, E., Jindrová, T., *Other Knowledge,* a long-term theme of the dramaturgy of the MeetFactory Gallery, Cycle of 10 curated exhibitions, Prague, (2020-2022)

Duha, V., Gajdošík A. & Maleček O., *AI: All Idiots - Mockument*, film, MeetFactory Prague (2021)

Javůrek, T., Meixnerová, M., Trnková, B., *ScreenSaverGallery,* net art exhibition space, application, (2013-present), online

Javůrek T., *AI: All Idiots – Statistics,* print on the wall, MeetFactory Prague (2021)

Javůrek T., *AI: All Idiots – Inline,* print on paper, MeetFactory Prague (2021)

Javůrek T., Trnková B., *AI: All Idiots – Generator Animation,* video, MeetFactory Prague (2021)

Javůrek T., Trnková B., *AI: All Idiots – Samples,* print on PVC, MeetFactory Prague (2021)

Javůrek T., Trnková B., & Havlík V., Ševců P. - *AI: All Idiots – Jokes,* audio, MeetFactory Prague (2021)

Javůrek T. & Jeřábek K., *AI: All Idiots – Application,* application, MeetFactory Prague (2021)

Le, B. & Factory New & Kyle the Hooligan Anonymous, FN Meka., application, a virtual rapper and influencer, (2019– c. 2021), online

Meixnerová M. & Hasan A. Z., Pražák J., Trnková B., *AI: All Idiots – Aimee,* interactive digital guide, MeetFactory Prague (2021)

Smetana M. & Javůrek T., *Ai: All Idiots – Animation,* 4 videos, MeetFactory Prague (2021)

Smetana M. & Maleček O., *Ai: All Idiots – Eyes on Stalks*, MeetFactory Prague (2021)

Trnková B., *AI: All Idiots - Showcase,* video, MeetFactory Prague (2021)