

This is the

Text of the German application of Art of Coding

([www.http://demoscene-the-art-of-coding.net](http://demoscene-the-art-of-coding.net)) with the purpose of bringing the demoscene onto the list of UNESCO intangible cultural heritage of humanity. The application was submitted in Oct 2019 and has been written in an collaborative community effort led by Tobias Kopka supported by Andre Kudra, Stephan Maienhöfer, Gleb Albert, Christian Brandt, Andreas Lange and many more who gave their hands at Digitale Kultur und Tastatur und Maus e.V.

The structure depends on the form, which is given by the German UNESCO. In spite the structure differs from forms used in other countries text modules can be used for application in other countries. The texts in square brackets are part of the German form.

Also every kind of feedback is welcome, which could be taken into account for future use. Use 'team (at) demoscene-the-art-of-coding.net'

1. Type of Immaterial Cultural Heritage

[Please tick the applicable sections and elaborate in keywords (multi-selection possible, but not mandatory)]

Section A) verbally passed on traditions and expressions

[keywords]: own technical vocabulary, own idiom with specialized terminology, English is lingua franca

Section B) performing arts (music, theatre, dance)

[keywords]: composition, performant, live, public presentation, animation

Section C) social tradition, (seasonal) celebration and ritual

[keywords]: demoparties, competitions, visitor voting, price ceremonies

Section D) Knowledge and customs, related to nature or the universe

[keywords]: digitalized living environment, cyberspace, virtual reality

Section E) traditional craftsmanship

[keywords]: coding, composition, animation, adoption, do-it-yourself

Section F) other

2. Geographic localization

[Please name localities and/or regions in which the cultural form is being practiced or cultivated.]

The Demoscene is a global, decentrally organized cultural form with its epicentre of activity in Europe.

Ever since its emergence in the second half of the 1980s, the Demoscene's radius was congruent with the occurrence of Home Computers on one hand, and the just-emerging Gaming Industry on the other hand. Hence its strong presence in Western and Northern Europe, as well as the United States to a limited degree.

After the fall of the Berlin Wall, the Demoscene eventually became a global community, with collectives and events on all five continents (Albert 2018).

Although Demoparties always kept a regional character, and physical meetings are an integral part of the Demoscene's identity, it does not narrow itself to regional categorization in its self-understanding. Due to its extensive online structures, practice and discourse are open to anyone with an internet connection.

If applicable, tick and specify:

X active in several counties in Germany

X active in European countries outside of Germany

X active in countries outside of Germany

3. Short Description

[The Short Description is supposed to provide a concise depiction, e.g. for the internet: its purpose is to describe the current application and practice, the specific knowledge and skill, the provable existence for multiple generations as well as the activities to preserve and transfer of knowledge to future generations (between 3000 and 4500 characters including spaces)]

The Demoscene is an internationally active, decentrally organized and non-commercial digital culture, that devotes itself to the production of digital audio-visual works, so-called "Demos". Demos are – usually, but not necessarily – a few minutes long, software-rendered animation sequences. They consist of specific combinations of other crafting categories, such as music, text-, pixel- and 3D-graphics and video. The objective is entering a competition and displaying the self-made Demos live at one of the scene-events, the "Demoparties". The programs are competing in different categories, and have to be real-time rendered by the provided computers for presentation (the replay as a video file is reserved for the purpose of archiving only). The competition categories are set by different limitations (e.g. 1 or 4 kilobyte maximum file size) or specific historic computers, like the Commodore C64. The comparability of the Demos is constituent for the scene, as it is heavily carried by its competitive nature. Therefore, one of the core competencies of Demosceners is the so-called Size-coding, whereas the program code is being written as lean as possible. Further complementing competencies are e.g. the so-called "Tracking" of music, a programming-like composing technique, or the Hacking-attitude to creatively explore and master new hardware platforms. In all those instances, self-limitation is an important creative driver.

The Demoscene has its roots in the Cracker culture of the 1980s, when groups of autodidactic teenage computer fanatics built digital “calling cards” into cracked videogames, to prove it was them breaking and removing the copy protection. These so-called “Crack-Intros”, executed within extreme limits, got more ambitious over time, eventually becoming standalone visual artwork, the Demos, and developed independently from the Cracker Culture. The Demoscene viewed itself from the beginning as an international community, in which English is the Lingua Franca.

Another characteristic of the Demoscene is the exclusivity of its competition entries. Any demo being entered and premiered on a Demoparty, cannot compete in any other event thereafter. Almost every week, there is a Demoparty somewhere on the globe (see demoparty.net). There are four larger annual events in Europe with more than 400 participants, in Germany the biggest event is currently held in the county of Saarland (“Revision”, approximately 1000 visitors), and for 20 years in North-Rhine Westphalia (Evoke, approximately 500 visitors).

In regards of passing on the cultural aspects over multiple generations it must be recognized that “generations” define differently in the digital cultural space than in the conventional context, where cultural heritage is being passed on between (human-) generations. Digital cultural forms on the other hand tend to be short-lived, as they are by nature dependent on the technical platform and developed in a specific setting. Under these circumstances, the Demoscene can rightfully be viewed as a bedrock digital culture with its 30-year-spanning history, and one of the few that was able to conserve its cultural identity over several technological milestones, spreading over multiple age-group cohorts at this point. The community developed a specific scene-mindset, that adjusts and adapts to all technological change.

A major enabler for the common spirit within the scene is the strong solidarity amongst sceners. Physical meetups are an important part of the scene’s identity. In parallel, a lively online culture is an integral part of the scene-life, that started with BBS (Bulletin Board Systems) and transposes to this day with Online Competitions, community discussions (like the scoring of entries in scene-exclusive online forums) and the so-called sofa-screening (Twitch, Scenesat, Revision-Stream, etc). A mix of online and offline activity is common practice.

Preservation and knowledge transfer is being facilitated by Demoparties, public relations work, online- and offline-archiving, outreach activities by Demoscene societies, groups and individuals. Exhibitions and scientific discourse contribute to the analysis, but also to knowledge management and as input for the scene’s further development.

4. Description as Cultural Form

a) Contemporary Practice

[Describe the current practice and application of the living cultural form – the motivation to perform or practice, the technique, rules, etc as well as the significance of the cultural form to the impacted society/ies. Please also describe the identity-establishing character. (Between 1200 and 2000 characters including spaces)]

Today’s practice of the Demoscene is a mix of online activity, the autonomous production of artwork in a private context and the open gathering at multi-day events, so-called Demoparties. The motivation of the members is a mix of the social and competitive nature, social status is achieved by deeds for the community, or the production of outstanding artwork. Another important identification factor beside

the focus on technical excellency is the strong internationally (European) oriented community spirit, that already developed in the 1980s despite the existence of the Iron Curtain.

Noteworthy is also the collaborative cultural aspect within as well as between Demogroups. The scene facilitates teamwork between universalists and specialists in everchanging, new constellations, depending on the current Demo-project (Hartmann 2017).

The rules of the Demoscene constantly developed and elaborated throughout its existence, to only outline a few: usually, a producer of a Demo must be present at the Demoparty it is being released at. Any demo must only compete once, making their presentation de facto exclusive, the Community evaluates and rates the Demos as peer-expert audience, whereas every visitor has one vote.

Further elements of the identity-establishing character: Mix of merit, competition, open-mindedness towards people that dare, recognition by peers and even role models, mentors as motivators, (former) identification as underground culture, in any case being part of a movement that is at the same time inclusive and exclusive to its members. Today, the identification as digital veterans plays a growing role (being a contemporary witness binds together).

b) Passing-on Knowledge and Skills

[Please elaborate, which specific knowledge and skills are being used and passed-on in relation to the cultural form. (Between 1200 and 2000 characters including spaces)]

In the Demoscene, knowledge and skill transfer occurs by means of active adoption and participation in the cultural production within the competitions. Actual creation is the essential device for passing-on knowledge. The main platform for impartment are the different online communities and the actual meetups at Demoparties and their informal as well as organized (Seminars) discourse platforms.

The maintained skill categories are manifold and will be described exemplarily by the example of digital programming. For the past 20 years, Size-Coding has developed as a special preference within the scene, that focusses on creating unprecedented, impressive effects with as little program code as possible. This practice is comparable to the creative stimuli by self-limitation in other artforms (such as “Dogma” in movies, the form of Sonnet in poetry, or Origami as folding technique). Analogies to this self-limitation in other areas are music- and sound production (Tracking Music), or in graphics design (Pixelgraphics, Oldschool-Graphics).

Beside the “hard skills” like creating algorithms and artefacts, the Demoscene lives by a subset of mediate skills, like teamwork, dealing with the competitive character and deadlines, performative formats like Live-Coding, which is performed throughout different event formats like Hackathons. Further body of cultural knowledge are the history of the Demoscene, conventions in file design or social etiquette. Mastering those challenges, in combination with the international and often-times decentralized split of labour and teamplay, holds a strong personality-building dimension.

c) Origins and in the course of time

[Please elaborate, how and when the cultural form developed, how it changed over time and how it is passed-on from generation to generation and by that expresses continuity]

The Demoscene has its historic origin in the Cracking Scene of the 1980s. As software was widely unprotected by legislation, developers relied on copy protection mechanisms. At the same early time, a

countermovement of autodidactic computer fanatics formed, using pseudonyms and organized in groups, competing with each other who was first to lever out the copy protection of a program, and distribute the modified result (Wasiak 2012). To claim their “achievement”, they slotted-in short, real-time rendered intros at the start of the program, the so-called “Crack-Intros” (Reunanen/Botz/Wasiak 2015).

By the end of the 1980s the people specialized on those Intros started to disengage from the Cracker-Scene, partially due to the threat of persecution, partially to focus on the technical and artistic competition rather than the cracking and distribution of the software itself (Reunanen 2014). The realtime-graphics-animations were now shared and distributed independently from the cracked videogames, became more elaborate, and eventually occupied the space of entire floppy disks.

Ever since, several technological milestones (like the emergence of the PC around 1995) had an impact on the Demoscene, and prompted it to adjust its rulebook and competition formats.

Other dimensions for continuous development and progress of the Demoscene is caused by the constant interplay of new styles, design and technique (historic and contemporary) that intertwine, combine or compete with each other. A lively discourse exists within the Demoscene about the historicity and typologies of demos (“Oldschool” versus “Newschool”), as well as external and internal argument with museum-discourses. While the demoscene is de facto one of the oldest forms of computer art, it has persistently denied itself from the art market and its expert community (Hartmann 2017).

d) Contemplation on history and development

[Please show in the following critical contemplation on the history of the cultural form, particularly in the time of National Socialism, but also in relation to the Mediaeval Ages, the German Empire, Colonialism and/or the SED-dictatorship. Address also – if applicable – current socio-political discourse and controversies in relation to practicing the cultural form (between 1000 and 2000 characters including spaces)]

Technical prerequisite for the development of the Demoscene was the invention and spreading of the Homecomputer. Hence it is historically a child of the late stages of the Cold War and the resolution of the confrontation between East and West. Even before 1990/1 there were protagonists behind the Iron Curtain, facing different challenges from their counterparts in the West. The key challenge was the availability of Homecomputers, which were hardly obtainable in the Eastern bloc, as well as restriction on transnational communication like the import embargo on data storage devices. Nevertheless a Demoscene emerged in countries such as Poland, Hungary and Czechoslovakia already years ahead of the regime change (Wasiak 2014). After the fall of the Iron Curtain, the Demoscene came to its full maturity as one of the first East-West-overarching youth subcultures: mixed demogroups formed, demoparties established in the former Eastern Bloc and visited by Western Demosceners (Albert 2018). In Germany, the initially unpolitical scene positioned itself as anti-racist and published e.g. after the pogroms in the early 1990s numerous audio-visual statements.

Notably is the limited gender-diversity of the early Demoscene, what originated on one hand from the marketing strategies of Computer- and Gamedevelopers of the 1980s, on the other hand by the misogynist technology discourse of the time (Kirkpatrick 2015).

Within the past 15 years society shifted and the view of masculinity is being reflected, women and trans*persons are taking recognizable part in Demo production as well as organization of the infrastructure.

Naturally, another controversy was the Demoscene's origin in the Crackerscene and its role in creating and distributing pirated copies. Hence the scene had a long history of conflicts with the copyright laws, lasting into the mid-nineties.

e) Impact

[Please describe, which impact the cultural form had outside of its own society or groups. If available, name activities of artistic work and popular culture that reference the cultural form. If applicable, please also describe aspects of the social, economic and ecologic sustainability as well as animal rights or environmental protection, that have an impact on practicing the cultural form. (between 1200 and 2000 characters including spaces)]

The Demoscene has many touchpoints with other culture forms, whereas videogames are the most obvious one. Many game studios have been founded by Demosceners or are heavily influenced by them to this day. Particularly well-known studios are e.g. Remedy Entertainment in Finland (Max Payne, Alan Wake), DICE in Sweden (Battlefield) or Crytek in Germany. In countries such as Sweden and Finland, Demoscene collectives were the actual founders of the local computer game industry (Sandqvist 2012).

A related field are 3D-Graphics-Engines that have been co-developed by Demosceners, e.g. CryEngine, Unity and many unlicensed proprietarily developed systems.

Another reciprocal influence can be noted with electronic music, that developed in the 1990s under the hypernym "Techno". The same methods (Tracking) and tools as in Demo productions are being used. Important topical and organizational connections have been and still remain to the Chiptune- and Netlabel-scene, as well as in the (juridical) Creative Commons milieu.

On other cultural levels the scientific evidence of impact to the scene is missing as of yet. There are e.g. many overlaps between the Demoscene and music video production.

Moreover the Demoscene has been becoming an object within the classic cultural process since the early 2000s. Notable by way of example are e.g. museum exhibitions (MAK Frankfurt, "Digital Origami" (2002-2003), at the ZKM "Schriftfilme") as well as the regular appearance at art events such as "Next Level" in NRW. The topic of computergenerated graphics brings the Demoscene repeatedly to SIGGRAPH (Special Interest Group on Computer Games and Interactive Techniques) conference series and is a regular guest at the FMX (the leading conference in Europe for Animation and Special Effects) in Stuttgart.

f) Connection to Europe

[Please elaborate, if available, to which other traditions in Europe the cultural form is connected. How did this impact the development of the cultural form, and which forms of international collaboration exist today (between 1200 and 2000 characters including spaces)]

The Demoscene is in its emphasis pan European, with smaller global active posts (e.g. in Japan and USA). The Demoscene and its protagonists can be described as digital Europeans avant la lettre: Demosceners have national identities, but those have always stood back behind a scene-devoted, digital-European lifestyle.

There is no distinction by national borders, but rather based on association with different computer platforms (Reunanen/Silvast 2009). Cracker- and Demosceners were already accustomed to communicate over international borders and globally way before Schengen was established (in the case of European borders). Communication took place first via postal service, later via modem and BBS-systems (the predecessors to internet-based communication and fileshare platforms), as well as by means of regular Cracker- and Demoparties all across Europe.

Historically, the concentration in Europe can be explained by the high prevalence of Homecomputers such as the Commodore 64 and Amiga, as well as their fairly open approach to self-made software development, whereas the Games- and Digital culture in Japan and the US was mainly influenced by gaming consoles, and only later by the emerging PC. The former were harder to use for own productions due to their exclusive system structure, the latter only experienced their graphical and technical performance revolution in the mid-nineties, to become increasingly relevant to the Demoscene. The 1980s and early 1990s belonged to the Homecomputer.

Respectively, the identity of the Demoscene is European in its essence: the largest Demoparties happen in Europe (Finland, Germany, Hungary Denmark etc., see www.demoparty.net), English has always been the lingua franca of the Scene, and most parties are being organized by international teams today.

5. Societies and Groups as well as their contribution

a) Involved Societies, Groups and Individuals

[Please name cultural contributors and their activities. Please call out their organisational form, the estimated number of current contributors and their importance to the retention of the cultural form (between 1400 and 2400 characters including spaces)]

The number of contributors can only be roughly estimated: calculated from activity on online platforms, on which around 500 signed-in users are active within 24 hours, one can extrapolate around 4.000 to 10.000 active contributors.

Particularly within the Technology domain the number of people interested in Demoscene productions can easily go into the hundred thousands.

As a direct democratic and individualized society are the most important cultural carriers the producing individuals, be it coders, graphics artists, musicians or organizers. Their main activity lies in the appliance of their digital-artisanal skillset for the production of Demos (software), music, graphics, videos and many more, as well as the organization of enabling infrastructures, for example online by maintaining discussion platforms and archives. Further the community also consists of passive aficionados and formerly active members, whose inactivity does not result in exclusion.

The base organisational entity of the Scene is the Demogroup. It consists of Demosceners that gathered under a brand/name/logo and may consist of two to hundreds of members. Demogroups can be

long-term arrangements (some groups exist for well over 30 years) or only in scope of a single production. A Demoscener may be part of multiple groups, whereas any group has their own mentality and specific dynamics. They can be organized egalitarian, hierarchical or anarchistic.

Essential sites of social interaction are Demoparties: they are a physical location for gathering, competition, community maintenance and knowledge exchange in seminars. Each one has its own characteristics (platforms [PC vs Atari, vs Amiga, own competitions, specific qualities of competitions in special locations and own dramatization, with an essential role in trendsetting for the Demoscene).

The only formal entities in some countries are Demoscene Associations, that normally serve as legal framework for the organization of Demoparties. Some of them further conduct PR work and outreach-activities, usually within other related, digital or cultural communities.

b) Access and Participation on the cultural form

[Please elaborate if the participation in the cultural form is essentially open to all interested parties. If there are limitations, please describe them. (between 800 and 1600 characters including spaces)]

Basically, Demoparties and the Demoscene are open to everyone interested to visit or participate. Demosceners develop over the years of participation a strong transnational communal spirit.

The successful participation in a competition is subject to the qualitative aspirations of the hosting community. There are normally no qualifying rounds in order to participate in a competition. Only in rare cases, for competitions in very high demand, a preselection may take place, to keep the presentation to a digestible length (e.g. Music competitions, which may potentially last multiple hours). This does not imply a limitation to participating in the cultural form, as all Demoparties are open to anyone, the actual recognition- and value concept are carried by a participative system: who creates, counts. The only criterion is the creative style on the computer and contributing art for the community, but also passive members are welcome. Income, age, gender, disability or nationality are not important. In its foundation, the scene has an egalitarian or meritocratic approach, although it must be historically noted, that social dynamics caused a traditionally higher share of male versus female Demosceners. This situation is not irreversible, but requires a growing mindset towards it as well as time.

c) Participation in Application Process

[Please describe in which form the bearers of the cultural form were able to take part in this application process, and this opportunity has been used. Has contact been established to other societies, groups and individuals been established? (Between 1400 and 2400 characters including spaces)]

Due to the decentral nature of the scene and the low manifestation in associations it is necessary it is essential to use scene-specific discourse platforms for the application. This application has been initiated and created in close collaboration with the active German associations Digitale Kultur e.V. and Tastatur und Maus e.V. who can be viewed as central organizational bodies, hosting two of Europe's biggest Demoparties, Revision and Evoke.

As important is networking via scene-specific online platforms. The application has been presented and discussed on the most important scene-platform (pouet.net, 20.000+ users), while at the same time multiple physical meetings on Demoparties and Game Industry Events took place.

The initiative has been presented at the Nordic Game Conference in Malmö, Sweden, in May as well as at the Demoparties Evoke in Cologne, Germany, and Assembly in Helsinki, Finland, in August in open seminars. Leading organizers and Community-Leaders within the scene used the opportunity to declare their support, thus securing an international visibility within the scene.

Due to the internationality of the scene the initiative has been internationally set up from the start. Beside the utilization of international online-platforms, securing EFGAMP e.V. as a supporter to the initiative helps coordinating the national application initiatives, maximising the use and efficiency of the available efforts from the start. As communication and coordination platform an online-platform (Discord) has been established, the campaign website www.demoscene-the-art-of-coding.net has been designed to represent the application, where we list a large and still growing number of supporters to the initiative.

Even after submission of the German application the process is being continued by Digitale Kultur e.V. and its supporters at Demoparties and related events, to find supporters in as many countries as possible for further collaboration and applications.

6. Risk Factors in Retaining the Cultural Form

[Please call out potential risk factors, which may negatively impact the passing on, practice and application of the cultural form. This should also include possible consequences from listing the cultural form in a catalogue. (Between 1500 and 3000 characters including spaces)]

A significant risk for the retention particularly of the historical context of origin is a “Digital Dark Age” due to rotting of the originally digital and analogue data storage media and therefore digitally passed on culture particularly in the early days (BBS / forums / chats / floppy disks / diskmags, etc) but also later hardware experiments that are being presented in so-called Wild-Competitions on Demoparties.

Another risk for the retention of the artform is the lack of active talent recruitment from the different creative areas, albeit noted that there is a recent spike in young talent especially from Visual Coders, that gain knowledge of the Demoscene due to related scenes and professions, as well as a constant influx of new musicians and graphics artists. Also, new Community-Leaders must be found that are willing to set up and host events and communication infrastructure.

Beside the risk of a lack of talent recruitment of active Demosceners the risk exists that volunteer-based personal and financial resource for the technical maintenance of community platforms and archives may seize. This would cause inestimable loss particularly in the light of the historic uniqueness of the scene.

Thanks to more visibility, the scene can benefit from a listing in recruitment as well as maintaining its collection- and archiving efforts sustainably. The scene-internal discourse about the application is complex, and not only met with favour. Particularly around the attribute of higher visibility, there is concern to lose the status of a subculture. This viewpoint is inherited from the early days and evolves around commercialisation of the scene. Another facet of the discourse is the critical stance of some Demosceners towards the culture and art establishment.

Most sceners, particularly active members producing demos or hosting events, do not share those concerns, but see this application and listing as an opportunity to elevate and deepen this discourse – due to the decentral nature of the scene the discussion won't come to an all-encompassing conclusion.

7. Existing and planned Measures for the Preservation and creative Transfer of the Immaterial Cultural Heritage

[Please describe which measures are or have been in place by the bearers of the cultural artform, to secure the continuance of the Immaterial Cultural Heritage and which measures are planned for the future. Preservation measures serve the awareness building, promotion, transfer particularly by means of scholastic and extra-scholastic education, investigation, documentation, research, revaluation and reanimation of different aspects of the Cultural Heritage (between 2000 and 4000 characters including spaces)]

Since the nature of the culture is decentralized and self-organizing, the activity within the scene is its measure for preservation. Pivotal to this are the creative process of the cultural artefacts as well as the gathering on Demoparties, and the exchange and celebration of the techno-creative community. But also besides the Demo productions new fields of activity have developed, in which Demosceners took leadership and critically contribute to the scene's further development and preservation:

- Gatherings/Demoparties
Demoparties play a central role in the maintenance of the culture. They do not only offer a platform for competition and personal meetings. Additionally seminars are being offered, that cover different topics and serve the development as well as self-assurance of the scene. Demoparties are the most visible aspect of the scene to a broader public. This positions the organizers as interface to the public, e.g. in answering journalists' requests.
- Outreach
Outreach activities are being managed by individuals as well as organizations that formed over the years to serve as legal entities for different organisational tasks to maintain the culture. While the former manage publicly available online platforms or internet radios (e.g. SceneSat or SlayRadio) and represent the scene on related cultural events such as 8Bit-concerts, associations target public appearances e.g. at the Play Festival in Hamburg, Germany, and are contact points to members of the media, cultural institutions or conference- or festival organisers.
- Preservation
Regular archiving established early in the Demoscene's development. As a digital culture form, the Demoscene held the know-how and skillset to use computerized technology for preservation and documentation. Impressive online-archives emerged quickly, in which over 50.000 archive copies encompass almost all Demos that have ever been created, including multi-linked meta-datasets (e.g. www.pouet.net). Programmes to digitalise analogue documents and works have been performed over many years, and published their effort in publicly available archives (e.g. www.scene.org).

The Demoscene's early and strong consciousness for its own history and the creation, development and maintenance of practical archiving solutions are a testament to the strong cultural identity in interplay with the live presentation practice of the scene.

With regards to future measures and effects we set our hopes in the benefits of a listing for all of the above measures. Although they have been maintained with impressive results by the scene itself, a systematic advancement is required that requires further resource.

We are aware of the fact that the listing does not accompanied by monetary benefit. But more collaboration with other cultural players may well be a benefit for all sides in the future.

Last but not least the indirect effects to the recognition and visibility of the entire ecosystem of Digital Art Culture cannot be overstated. The listing of the Demoscene can be a signal to all other digital and post-digital discourses, recognizing and valuing their own characteristics and serious impact they have on our culture and solidarity.

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