

# **The Time has come**

## **Digital culture must become part of the world heritage**

a call to action by Andreas Lange, May 2019  
(translation by Dr. Barthold Pelzer)

### Teaser

In his article, Andreas Lange argues that digital techniques should not only be considered as tools for preserving traditional non-digital cultural artifacts and forms and using them for instructional purposes, but also to acknowledge genuinely digital practices as part of our cultural heritage in their own right. His plan is to have them included in the UNESCO Intangible Cultural Heritage Lists to trigger a broader discussion. He examines in how far digital culture fits current definitions of culture and shows that the potential for participation and for inducing change inherent in digital technologies as one of their core elements is consistent with our notions of intangible culture.

### Introduction

Since culture itself is an ever-changing process, this also holds true for our notions of it. Before we can appreciate something as culture and then acknowledge it as something valuable that perhaps should even be preserved, we have to identify that phenomenon as culture. So, instances of cognitive dissonance will always occur. For the process of achieving a broad social consensus on questions of cultural change is only possible once that change is underway. This is even more so when that change is both happening at an immense pace and affecting not only, as it were, matters on its own turf, but affecting all realms of culture and society. You have to consider both of these aspects in the following discussion. The momentous cultural change triggered by the proliferation of digital technologies is also inevitably shaping the very forms we employ to appreciate culture.

Thus, I think consulting the UNESCO declarations of intent and their Intangible Cultural Heritage Lists may shed some light on these questions, since their wide global and boundary-crossing approach resembles the limitless proliferation of digital cultural practices as well as the way the latter work.

In the following, the concept of a genuine digital culture is also to include instances where digital technologies are used as tools with the aim of preserving non-digital cultural artifacts and using them for instructional purposes. The line separating the use of digital technologies as a tool for these latter tasks from that of employing them as a means for producing genuine born-digital cultural artifacts is constantly shifting, too. For example, the rapidly growing number of open-access registers of collections reveals how meta-data and digital copies, both freely accessible via APIs<sup>1</sup>, begin to

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<sup>1</sup> API stands for *Application Programming Interface*. These interfaces for programming allow for information to be automatically transferred from one system to another one.

lead an albeit digital life of their own that increasingly distances them from their material templates.<sup>2</sup>

This is why I strongly recommend that we change our perspective. Hitherto, most of our attention went into employing digital technologies with the aim of preserving traditional cultural artifacts in the best possible way, so that they were e.g. available for educational purposes. Now, the time has come to focus on the qualities shared by all digital cultural techniques in order to both interpret them as specific forms of our cultural development and to make them more manageable. Just think for a moment on the impact digital technologies have had on the ways we communicate with each other and interact with our environment. They have become fundamental to our culture. More and more, we will come to employ Artificial Intelligence and technologies of augmented reality. This will not only increase the speed of these processes, but furthermore intensify ties between our very lives and those digital technologies.

One important feature of digital phenomena is their potential to be changed and to allow for user participation. Even if you want to maintain them in their so-to-speak most authentic state as possible, you cannot dispense with regular technical updates for keeping them available for future use. Digitally-based phenomena are best understood as processes. Thus, our notion of culture primarily relying on objects will more and more have to incorporate the idea of streaming as well.<sup>3</sup> So, this understanding will then not only rely on the idea of immutable originals, but also embrace processes of conscious participation and guided change. Coincidentally, the latter is not too far away from the core definition of intangible culture. This is why in this article I will in the end propose marrying the realm of digital culture to the sphere of traditional intangible culture that is already accepted as such.

### Status quo

Without doubt, one of the highlights of the European Year of Cultural Heritage in 2018 was the "Berlin Call to Action – Cultural Heritage for the future of Europe" whose main object was a general plea for the overall preservation of the European cultural heritage. That said, a second glance reveals the sense of fragmentation inherent in the notion of a genuine digital culture outlined there. (I doubt it that this was intended by the authors.) Thus, the preamble treats digital on a par with both tangible and intangible cultural artifacts:

*This "Berlin Call to Action" draws its inspiration and legitimacy from the expertise, enthusiasm and engagement of all those women and men who care for cultural heritage (tangible, intangible and digital)...*<sup>4</sup>

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2 For a good overview on current initiatives and an assessment of their implications:  
<https://pro.europeana.eu/tags/open-access>

3 Cf. Andreas LANGE „Vom Objekt zum Stream“, in: *Politik & Kultur – Zeitung des Deutschen Kulturrates*, 6, 2018 (<https://www.kulturrat.de/wp-content/uploads/2018/10/puk06-18.pdf>)

4 <http://www.europanostra.org/wp-content/uploads/2018/09/Berlin-Call-Action-Eng.pdf>

However, another paragraph addressing the preservation of the cultural heritage narrows this definition of the digital down to that of a means for preservation. Hence, its inclusion in the realm of heritage is not due to its own merits:

*We must boost the necessary human and financial resources and invest in skills and capacity building in order to ensure proper preservation, development and transmission of our heritage, both physically and digitally.*

This latter sentence repeats conventional practices and interpretations of digital technologies as tools. However, placing the cultural heritage of tangible, intangible and digital provenance side by side, as casually established in the first quote, may point to a possible answer when it comes to categorise digital artifacts because this instance sketches very plainly a sphere for genuine digital culture sitting quite comfortably next to the accepted realms of culture.

If we interpret digitalisation as an interdisciplinary process that affects all realms of culture in different ways, then this opening up of digital culture as yet another field of cultural heritage must be understood as something transitory – an idea that is not expounded in the Berlin call.<sup>5</sup> Presumably, we are already today dealing with a vast array of different hybrid phenomena that combine digital and analogue elements as exemplified by technologies of augmented reality or the Internet of Things. So, we have to address another question as to whether current definitions of tangible and intangible culture are flexible and wide enough to encompass born-digital culture or if that is not case how these concepts can be adjusted to make this integration possible.

### Tangible vs. intangible

Our distinction between tangible and intangible forms of culture is a result of history and today crucially embodied in the two UNESCO lists bearing those respective names. Whereas the List of World Heritage Sites stems from the 1970s, the UNESCO Intangible Cultural Heritage Lists was inaugurated as late as 2003. This is when such phenomena began to become officially recognised.

Most of us will doubtlessly not hesitate to categorise digital culture as belonging to the intangible realm. For neither programs nor codes do have material properties in the conventional sense, and in marked contrast to that content, that has been

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<sup>5</sup> At first glance, we could be led to assume that the UNESCO accepted some form of mentorship in this sphere as early as in the early 2000s, when the initiative „Guidelines and the Charter on the Preservation of the Digital Heritage“, mainly driven by libraries and archives, appeared to remedy some of the problems discussed here. However, when the document begins with outlining its context, it clearly reveals a rather narrow notion of digital technologies:

„A large part of the vast amounts of information produced in the world is born digital, and comes in a wide variety of formats: text, database, audio, film, image“ [<http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/preservation-of-documentary-heritage/digital-heritage/background/>]

We see that “program” (executables), the most important format of born-digital culture, is missing in this list. This concept of the “Digital Heritage” does not encompass genuinely digital artifacts, but only more or less static objects such as e.g. digital copies. This rather conservative view is underscored by two facts: The UNESCO department “Communication and Information” is in charge of this initiative rather than that of “Culture”, and the initiative is linked to the program “Memory of the World” whose main purpose is to promote the aim of preserving our traditional cultural heritage by means of digital tools and making it thus accessible for educational purposes.

transported on material carriers from time immemorial, digital content allows for infinite lossless reproduction. The notion of an original is even less convincing than in the case of a photographic image, where the negative can be seen as the tangible original. The dichotomy of original and copy is made obsolete in digital culture.<sup>6</sup> On top of that, any software is subject to change at all times. No program is ever finished. We are constantly seeing bugs fixed, adaptations put into place, updates released or modifications being performed by users. Thus, we should rather conceive of them as processes than as finite entities.

Since digital culture invites the users to participate, it matches a core criterion of intangible culture. Participation is not only one among a range of possible choices, but sometimes the only way of appropriating the program as exemplified by video games. A look at gaming culture also reveals that change is not restricted to those spheres of action defined by the producers. For users have come to alter technical bases, interfaces as well as mechanisms of gameplay and the contents of the games themselves.

There are a number of good reasons for recognising born-digital culture as part of the intangible heritage. So, it may come as a surprise that this step has not yet been taken officially. Among the more than 400 international entries and the 100 on the national German list, not a single one refers to a cultural expression of digital provenance. We find both traditional forms of culture such as folk rituals and ancient artisanal crafts and more recent practices such as poetry slam or organising in cooperatives (Germany). So, the concept of intangible culture is open enough to incorporate quite recent achievements.

### Born-digital culture

One of the reasons why digital culture has not yet been acknowledged for its own merits is the focus on seeing it as a means to achieve some ulterior purpose, but even that does not contradict the definition of the intangible cultural asset. However, once you interpret digital culture as a tool, it may appear as too recent an achievement to qualify as something worthy to be preserved and to be included in a World Heritage List. Our digital toolbox for preserving our culture is still in a nascent stage, and this may somehow obstruct our understanding of digital phenomena as constituting a historic practice in its own right. Although its development covers a mere eight decades, this period spans across a vast array of different environments for development, rendering and appropriation, all of which are individual and from which we now see the realm of a genuine digital culture emerge. The immense speed of these processes has also produced many techniques that soon became

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<sup>6</sup> The processes of digitalisation have pushed discourses on the theme of authenticity – themselves venerable results of non-digital material contexts – to the extreme. Influential conservationists such as Georg Mörsch (Denkmalverständnis: Vorträge und Aufsätze 1990 – 2002, Zürich 2005) have emphasised long ago, that it is very difficult even to determine the original state of a piece of architecture. Change is an essential and crucial element of architectural history as well. The only constant is to maintain a certain functionality (but even that may be subject to change) in the service of satisfying demands that are the results of historical and topical conditions.

This line of reasoning cannot only legitimise the erecting of new buildings instead of meticulous reconstructions of lost historical edifices, but also the argument of preserving authentic tangible testimonies which have been subject to inevitable change. However, this discussion on the theme of original and copy in the realm of preservation of monuments adheres to a notion of a physical originality.

considered obsolete, although they are an essential base for technologies still in use.<sup>7</sup>

Due to this rapid pace of development, many of its aspects may soon be forgotten. This is particular true since this dynamic process is mainly driven by private companies who – such is the logic of business – prefer to sell new products instead of focussing on the preservation and maintenance of old ones. However, this attitude threatens to obliterate the very culture, which could only grow on the base of this technology and which will only be accessible as long as that very technology is kept in working order.

If we do not preserve the very tools that allowed us to create, distribute, run and use these very digital assets and cultural practices, there will soon come a time when this knowledge stored in the data will no longer be available to us. Without historical hardwares and softwares that work, we will lose access to the meaning encoded in those systems and to those functionalities.<sup>8</sup>

Thus, to keep historical technologies (hardware and software) in working order is as essential for digital culture as the inter-generational transfer of knowledge through oral, written or visual traditions in the realm of established cultures has always been. Digital tools, then, have a much wider scope of functions than traditional ones, since analogue works can also exist without the very tools that helped to produce them. When it comes to digital culture, this is only possible, if at all, in a very limited sense. Then, digital culture always requires a considerable and essential amount of material components for it to work. Even if in the long run we can maintain the hardware components necessary for this only as virtual equipment (also known as emulators), those interactions will require interfaces with material devices. We will probably still use binary systems in the future that will be aided by intermediate interfaces for input and output such as monitors and controllers. Plus, those other users connected to these digital systems will have to be humans, too, for their input and their interactions that are essential for operating these electronic systems all originate in the non-digital world beyond those systems.

### How to proceed?

Does its high share of material components rule out that digital culture can or should qualify as intangible culture? Let us briefly look at Article 2 of the 2003 UNESCO definition that says.

*The “intangible cultural heritage” means the practices, representations, expressions, knowledge, skills – as well as the instruments, objects, artefacts*

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7 For example, both Spectre and Meltdown, two security flaws published in 2018, which give access to data traffic all across the world, are built on processor architectures from the early 1990s. They were designed to increase processor speed by means of out-of-order executions and have been kept since then. Neuronal networks are a basic method for AI, but the 3D-graphic card technology they actually employ is quite old-fashioned. The latter was developed in the 1990s for rendering video games by doing parallel calculations. Thanks to this ability these cards are currently in high demand to be integrated into such sophisticated applications.

8 This insight is also the backbone of the UNESCO-supported „Software Heritage Initiative“ that was recently presented together with the Paris Call „Software Source Code“ to a wider public. (<https://en.unesco.org/foss/paris-call-software-source-code>)

*and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage.*  
(Convention for the Safeguarding of the Intangible Cultural Heritage 2003)

This definition clearly states that intangible cultural assets can essentially be linked to material components. Even the preamble of said document emphasises “the deep-seated interdependence between the intangible cultural heritage and the tangible cultural and natural heritage.”

Thus, the important line of demarcation does not concern the quality of the material, but it depends on the way the cultural practice in question is being understood. While the entries in the lists for tangible assets refer to objects worthy of preservation that should change as little as possible, a core feature of any intangible culture is its vitality, which by necessity entails that it is subject to change. Although any entry in the World Heritage Sites-lists (except natural sites, of course) has been created by humans, we can envisage its continued existence as being independent from us. In marked contrast, human beings lie at the core of any intangible cultural heritage. These traditions and practices have been handed down from generation to generation, and by being kept alive they also provide a sense of identity and continuity to the group. Now, another clear goal of the convention is to “promote respect for cultural diversity and human creativity.”

In this sense, the potential for change and participation are core elements of digital culture and thus make the latter a perfect contender for being listed as intangible culture. The project “Art of Coding”, which was initiated by the two associations Digitale Kultur e.V. und EFGAMP e.V.,<sup>9</sup> is to highlight these qualities. For it aims to have the demoscene – a genuine digital practice – acknowledged and entered into the list of Intangible Cultural Heritage. The demoscene<sup>10</sup> began to form with the rise of home computers in the 1980s. This international community still meets regularly to promote, teach and develop essential programming skills for specific hardwares that allow to produce graphics and sounds in real-time. The results (known as *dem*os) are evaluated in competitions in different categories. These born-digital cultural artifacts are made available to the public in an exemplary fashion.<sup>11</sup>

However, even if we disregard the eventual result of our current initiative or any comparable one, the public discussion it has triggered is already a success. For it allows us to identify those areas where we have to specify our notions of culture. At the end of the day, one of the over-arching goals of the UNESCO Intangible Cultural Heritage Lists is to strengthen and to nourish cultural diversity as a driver of sustainable development. So, there are good reasons not only to welcome the cultural implications in the wake of the spreading of digital technologies, but also to establish a broad public discourse that tries to make sense of them. For a particular

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<sup>9</sup> An overview on this project I have co-initiated with Tobias Kopka is available under:  
[www.demoscene-the-art-of-coding.net](http://www.demoscene-the-art-of-coding.net)

<sup>10</sup> For more information on the Demoscene wikipedia is a good starting point:  
<https://en.wikipedia.org/wiki/Demoscene>

<sup>11</sup> The international community has published a number of online archives such as <http://www.pouet.net/> on the theme of demos that come with large bulks of meta-data, plausible principles for archiving and are accessible to the public. The well-known German demo-group *Farbrausch* has published source codes for all their demos (<http://www.farbrausch.de/>)

cultural practice to be acknowledged, it must be previously identified as such. Thus, our notion of culture will certainly benefit from incorporating those practices. Now well into the ninth decade of the processes of the digital change that has affected all areas of our lives, the gap between its historical origins and the time when it finally will be recognised as a cultural practice in its own right should not widen any further. On the one hand, this warning comes from my professional angle. Preserving specific digital cultural practices in the face the rapid technological changes will become more difficult with each year that passes in relative inactivity. On the other hand, this also concerns the wider socio-political context. This recognition should not only yield passive acts of reception, but be used as a call for taking action. The time has come for us to employ the structures and platforms available to make better use of them in this sense. The time has come since the rapid pace of digital change is a force that hugely increases the need for giving people a sense of direction. And finally, the time has come thanks to the huge potential inherent in digital technologies to embrace and strengthen traditional cultures and communities in a contemporary fashion. Of course, these technologies can also undermine traditional communities. But that does not refute my argument. It only increases the necessity to grasp these opportunities not only to label, but to recognise essential digital practices deemed worthy of support, so that they in turn can be harnessed to contribute to the goal of a sustainable development.

#### About the author

Andreas Lange is president of EFGAMP (European Federation of Game Archives Museums and Preservation Projects) and founding director of the Computer Games Museum in Berlin for which he worked as its curator until August 2018. Amongst other positions, he is a member of the “SIG Creative Industries“ of the Berlin Chamber of Commerce and Industry and the SIG “Cultural Heritage“ of the German Cultural Council. He also acts as an expert advisor for the German UNESCO commission in the field of cultural diversity and digital heritage.

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