CORE
Metadata, citation and similar papers at core.ac.uk
Provided by LaCRIS - University of Lapland Current Research System

University of Lapland

This is a self-archived version of an original article. This version usually differs somewhat from the publisher's final version, if the self-archived version is the accepted author manuscript.

The Evolving Information-Based Society and Its Influence on Traditional Culture

Hossain, Kamrul

Published in:
The yearbook of polar law

DOI:
10.1163/22116427_010010013

Published: 01.01.2019

Document Version
Peer reviewed version

Citation for pulished version (APA):
Hossain, K. (2019). The Evolving Information-Based Society and Its Influence on Traditional Culture: Framing Community Culture and Human Security of the Sámi in the European High North. *The yearbook of polar law*, *10*, 275-296. https://doi.org/10.1163/22116427_010010013

Document License
Unspecified

Download date: 11. May. 2020

The evolving information - based society and its influence on traditional culture: framing community culture and human security of the Sámi in the European High North

*Kamrul Hossain**

Abstract

This article examines challenges and opportunities resulting from the rapid expansion of information and communication technology (ICT), through their impacts on the traditional culture of a given community. The expansion of ICT extends to all spheres of our lives, and makes society globally-oriented, which has provided opportunities for communities located in remote regions to stay connected and participate in global issues, as well as to take advantage of new innovations, in a virtual environment. However, these developments have also resulted in tensions when considered from the perspective of maintaining fundamental values traditionally held by a community. These fundamental values are often developed from traditionally practiced social norms which, at times, are transformed to adapt to a new cultural reality in response to, for example, information-based technological development. Such developments may generate concern that information-based societal development will negatively influence the traditions and culture of communities, and indigenous communities in particular. These concerns suggest that the introduction of an invasive culture will affect the established community and their culture, who build their identity based on traditional norms. Many indigenous communities, whose identities are founded in nature-based traditional practices, are arguably afraid of losing their cultural values as a result of new information-based societal development. It is based on this premise that the following article considers the Sámi indigenous community of the European High North (EHN) as case study, to argue that culture is a transformational, and not a static, element in any given society; it highlights that information-based cultural development and traditional norms can be mutually re-enforcing. The article argues that culture should be viewed holistically, and that the integration of information-based societal development within traditional culture and identity contribute to cultural modernization.

Keywords: information-based society, traditional culture, identity, the Sámi.

1. *Introduction*

The rapid flow of information resulting from the widespread expansion of information and communication technology (ICT), extends to all spheres of our lives and makes society globally-oriented. This "global orientation" offers an opportunity for communities located in remote regions to stay connected to, and participate in, local and global events through virtual communication platforms. In addition to its opportunities, such development can result in tensions regarding the maintenance of fundamental values held by that particular society. These fundamental values are often developed from traditionally practiced social norms which, at times, are transformed to adapt to a new cultural reality in response to, for example, information-based technological development. The rapid expansion of information technology and broader access to internet has generated concerns that information-based societal development will negatively influence the traditions and culture of communities. It is argued that the high use of ICTs can contribute to increasing alienation and lead to social dysfunction, as is commonly argued, for example, that computer and video games may have socially adverse effects.[1] Such concerns are apparent in traditional communities who strongly maintain the customary values of their ancestors to identify as distinct community. These concerns suggest that the introduction of an invasive culture will affect the established community and their culture, who build their identity based on such traditional norms.

Many indigenous communities, whose identities are centered on nature-based, traditional practices, are arguably afraid of losing their customary cultural values as a result of new information-based societal development. This article argues that culture is a transformational, and not a static, element in any given society, and highlights that there is room to develop a bridge between information-based societal development and traditional culture. The integration of information-based societal development within traditionally developed culture and cultural identity is a new and inescapable reality. Considering the concept of culture as an integrated whole, as argued in this article, this reality is crucial for the development of culture wherein traditional values transform within the ongoing information-based societal development. This article addresses such transformations within the Sámi communities inhabiting the European High North (EHN). In doing so, the article first provides a brief overview of traditional culture,

---

[*] Research Professor & Director of the Northern Institute for Environmental and Minority Law / Arctic Centre.
This article is produced as part of the research project - Enablement besides Constraints: Human Security and a Cyber Multi-disciplinary Framework in the European High North (ECoHuCy) – funded by the NordForsk jointly with ESRC and NWO. Author acknowledges the useful comments and suggestions on the earlier version of this text provided by Mirva Salminen and Laura Olsén, and research assistance by Marcin Dymet and Karolina Sikora.
[1] David Bell, *Cyberculture, The Key Concepts* (Routledge, London 2004) 110.

and its role in the formation of community identity. Thereafter, the article illustrates the concept of cyber culture and its effects on traditionally held norms and values, in order to explore whether cyber culture forms a separate culture, un-identical to traditional culture. This conceptualization is examined thereafter in the context of the Sámi in the subsequent two sections, where the article first elaborates on Sámi culture and identity, and then demonstrates how Sámi culture and identity are both positively and negatively influenced by the rapid expansion of technological innovation with emphasis on the ICT related developments.

2. Traditional Culture and Community Identity

Broadly understood, culture generally consists of certain habits attached to a particular society to which a group of individuals belong. Traditionally, these habits are linked to a given geographical space, and they are reflected in beliefs, practices and rituals held or observed by the group, which are passed down through generations and the surrounding society. Practices linked to a specific language and / or a particular religion are strongly connected to the cultural orientation of a group. While these practices implicate traditional culture as attached to ethnicity, some argue that the concept of culture goes beyond ethnicity, and is understood as a product, process, and a way of life.[2] However, "a way of life", for traditional or local culture is often understood to be associated with unique and specific skills relevant within the structural setting of that particular community (such as reindeer herding for the Sámi). These skills are developed through knowledge that is rooted in the traditions of a community, which are developed and subsequently sustained across generations through interactions amongst members within a societal setting. For indigenous peoples, the formation of a cultural identity can also be closely linked to ancestral lands, nature-based livelihood practices connected to those lands, and the maintenance of certain ecological processes for the conservation of resources and biodiversity based on their traditional knowledge.[3]

Despite this established approach, culture cannot be comprehended essentially as static. Society changes, adapts to a new reality with new developments, and transmits new knowledge and

---

[2] Rodolpho Stavenhagen, 'Cultural Rights: a Social Science Perpective' in Asbjørn Eide, Catarina Krause and Allan Rosas (eds), *Economic, Social, and Cultural Rights a Textbook* (Martinus Nijhoff Publishers, 2001) 85-109.
[3] Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua) (Judgment) [2009] ICJ Rep paras 134–144.

behaviour along a cultural continuum.[4] Culture contains these transformations as a process. Adapting to new and modern technology alongside the maintenance of traditional practices has long been found to conform to the concept of culture. In a similar vein, technological development also influences the community mind-set, and broadly, this changing mind-set automatically becomes part of culture, without necessarily jeopardizing the traditionalist components of a given culture.

International human rights bodies have endorsed a broader perspective of continued practices adapting to new and emerging realities as part of "culture".[5] Even though there has not been any clear conceptualization of what "culture" in legal sense refers to, there is a great deal of analysis as to what "culture" means from the viewpoint of human rights. This analysis is reflected in various authoritative interpretations given by the UN designated special rapporteurs as well as by the human rights treaty monitoring bodies. For example, the UN Special Rapporteur of the Sub-Commission on Prevention of Discrimination and Protection of Minorities Francesco Capotorti asserted that "culture" should be interpreted broadly to include customs, morals, traditions, rituals, types of housing, eating habits, as well as the arts, music, cultural organizations, literature and education.[6] The authoritative interpretation given by the Human Rights Committee (HRC) (while interpreting article 27 of the ICCPR)[7] in its General Comment No. 23, states that culture manifests itself in many forms, including a particular way of life associated with the use of land resources such as fishing and/or hunting etc., that are particularly relevant for indigenous peoples.[8] The most recent General Comment produced by the Committee on Economic Social and Cultural Rights states:

---

[4] Fulvio Mazzocchi, 'Analyzing Knowledge as Part of a Cultural Framework: The Case of Traditional Ecological Knowledge' (2009) 36(2) Environments: a Journal of Interdisciplinary Studies 39, 43.

[5] Cf. Interpretation of the Articles 27 of the ICCPR, and 15 (1) of the ICESC, both in case law jurisprudence as well as in the General Comments 23 (1994) and 21 (2009) of the monitoring bodies, respectively.

[6] UNHRC (Sub-commission on Prevention of Discrimination and Protection of Minorities) 'Study on the Rights of Persons Belonging to Ethnic, Religious and Linguistic Minorities - Study by Special Rapporteur Francesco Capotorti (1979) 99-100.

[7] Article 27 of the ICCPR reads as follows: "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language." See International Covenant on Civil and Political Rights Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966 entry into force 23 March 1976, in accordance with Article 49 <http://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx> accessed 8 January 2018.

[8] UNHRC 'General Comment 23: The rights of minorities (Art. 27)' (1994) para 3.1.

> "[c]culture, for the purpose of implementing article 15 (1) (a) [of International Covenant on Economic Social and Cultural Rights] encompasses, inter alia, ways of life, language, oral and written literature, music and song, non-verbal communication, religion or belief systems, rites and ceremonies, sport and games, methods of production or technology, natural and man-made environments, food, clothing and shelter and the arts, customs and traditions through which individuals, groups of individuals and communities express their humanity and the meaning they give to their existence, and build their world view representing their encounter with the external forces affecting their lives."[9]

Concerning indigenous peoples, the HRC suggested that traditionalist understandings of culture are not threatened when adapting to the process of technological development.[10] Even when such development endorses, for example, non-traditional commercial components, according to the HRC, the nature of culture as it is presented still exists, and is justified by the flexibility of ongoing and post-modern development.[11]

The practice of culture is linked to the formation of identity for a given community since culture lies in the communal nature of interests. Identity formation is generally dependent on two sets of relationships: structural and functional. Structural relationships include the interaction of actors with prevailing external conditions in a particular geographical space. Functional relationships concern the inter-relationships amongst actors in their everyday communications. As culture itself is integrated in the very core of these structural and functional relationships, maintaining culture leads to the provision of a communal identity. The provision of identity is easily linked to ethnicity; the language a group of people speaks; and the religious practices that they perform. According to social identity theory, structural and functional relationships create an "in group" community, that is shaped around certain identical fundamental norms,

---

[9] CESCR 'General comment No. 21 Right of everyone to take part in cultural life' (2009) para 13.

[10] This is specially the case interpreted by the Human Rights Committee (HRC) concerning the right to enjoy a particular culture within the meaning of article 27 of the ICCPR. See *I. Länsman et al. v. Finland*, Communication No. 511/1992, UN GAOR, 52nd Sess., UN Doc. CCPR/C/52/D/511/1992, opinion approved on 8 November 1994, para. 9.3.1351-542X. The HRC argued that "The right to enjoy one's culture cannot be determined in abstract to but has to be placed in context … that the authors may have adapted their methods … and practice it with the help of modern technology does not prevent them from invoking article 27 of the Covenant."

[11] This view was further made clear by the HRC in the Apirana Mahuika case decided in 2000, where the Committee regarded commercial and non-commercial fishing by Maoris – even Maoris becoming major shareholder in a modern fishing company – as protected by Article 27 of the ICCPR as practicing of traditional culture. See *Apirana Mahuika et al. v. New Zealand* (Communication No. 547/1993), UN Doc. A/56/40 (Vol. II), pp. 11–29, paragraph 9.4.

values, and ethics referred to as customary laws, that support the group's identity as unique.[12] The role of customary law defines those interests, which are central to, for instance, indigenous communities who view their culture and cultural heritage as "a communal right, associated with a family, clan, tribe or other kinship group".[13] Hence, "culture" identifies communal entitlements, and according to Charles Taylor, the collective nature of such entitlements lie in identity formation[14] where a community collectively forms goals and acts deliberately to set its identity as a group in its everyday societal functioning.

3. Information – based cyber culture and traditional values

3.1. Defining cyber culture

Widespread internet usage as a result of the expansion of ICT offers new forms of interaction online, and has brought a new form of cultural communication amongst its users. Such communication online connects people from different locations, as well as cultural, religious and ethnic backgrounds, and the interactions ensuing within this context form a new cultural practice. This practice is referred to as virtual culture or cyber culture. In this article, the term cyber culture is used inter-changeably to mean the following: online culture, virtual culture, internet culture and digital culture etc. Given that there is no concrete conceptualization of cyber culture, in order to offer a coherent discussion, the notion of cyber culture needs to be conceptualized as much as it relates to within the subject of this article.

The cyber culture is a multi-dimensional phenomenon, and therefore yields multiple definitions. According to American heritage dictionary, cyber culture is the culture that arises from the use of computer networks, as for communication, entertainment, work and business.[15] Cyber culture evolves from the use of computer networks where human interactions play a vital role, and where multiple use of communications for different purposes creates a virtual reality. Ardevol asserts that cyber culture is an emerging cultural model developed through the

[12] Mazzocchi (n 4) 46.
[13] OHCHR, 'Protection of the Heritage of Indigenous People. Report by Special Rapporteur Erica-Irene Daes' (1997) 26, 28.
[14] Charles Taylor, 'The Politics of Recognition' in Amy Gutmann and Charles Taylor (eds), *Multiculturalism: Examining the Politics of Recognition* (Princeton University Press, 1994) 25.
[15] The American Heritage® Dictionary of the English Language, 'Cyberculture' (5th edn Houghton Mifflin Harcourt Publishing Company, 2018) <https://www.ahdictionary.com/word/search.html?q=cyberculture> accessed 7 January 2018.

increasing use of internet technology, which grows with the expansion of computer networks, internet communication, and provides a virtual environment in almost all aspects of life including education, creative and collaborative functions, entertainment, social networking and business etc.[16] The word – cyber – is connected to information technology, which refers to the use of the internet in any electronic platform to facilitate interactions. Thus, cyber culture is determined by the term culture as it relates to cyber technology. Unlike traditionally understood culture composed of customs, arts, design, language, etc., cyber culture is composed of the attitudes and behavior connected to cyber and multimedia use, which directly or indirectly affect human behavior. From an anthropological perspective, it is conceptualized as a culture where social interactions and cultural products are produced on the internet, and the internet is used as a media form. According to this approach, cyber culture can be analyzed in four different ways: as an adaptive strategy, as a system whole, as a symbolic order, and as a signifying practice.[17] In sum, cyber culture is something that one experiences or contributes to via the use of internet technology, email communications, online bulletin board systems (BBS) and chat rooms, which all grant access to an interactive digital environment.

In fact, our lives, in almost every corner of the globe, are today strongly linked to internet use. Activities that existed in physical world are now increasingly available in cyberspace. These activities go beyond virtual interactions for ordinary communication, but to other aspects of daily life such as, paying bills, shopping, reading newspapers, watching television and live programs, conducting virtual meetings, and research are that are now conducted via the internet. The internet is also used as a tool also for education and other public services, such as health care services for remote communities.[18] The internet can be used as a tool to overcome previous barriers to services and information caused by, for example, poor physical infrastructure, and can therefore be an enabling tool for communities. The flexibility of a virtual environment allows the users to make their own schedule of use, habits, and perceptions of distance and time.[19]. The multiple utilities of the internet, in their entirety, and how they are used, are considered internet culture or cyber culture.

---

[16] Elisenda Ardevol, 'Cyberculture: Anthropological Perspectives of the Internet' (2005) <https://eardevol.files.wordpress.com/2008/10/cyberculture.pdf> accessed 7 January 2018.

[17] Ibid.

[18] Out of a number of specific references in regard to online access to health care services, see for example, 'eHealth and Telehealth in Rural and Remote Australia' (Fact Sheet, 2013) <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-ehealth.pdf> accessed 7 January 2018.

[19] Gale Encyclopedia of E-Commerce 'Cyberculture: Society, Culture, and the Internet' (The Gale Group Inc., 2002) <http://www.encyclopedia.com/economics/encyclopedias-almanacs-transcripts-and-maps/cyberculture-society-culture-and-internet> accessed 7 January 2018.

3.2. Community formation in cyber culture

Individuals interact in cyberspace through online forums, news groups, social media, or chat rooms. They interact with each other on issues that interest them based on their preferences. For example, a music lover may frequently visit various available music sites online, a financial analyst will download stock-market information, and an activist will visit various blogs or political sites.[20] In effect, connecting with others online based on a similarity of interests provides individuals with the feeling of belonging around certain issues. Like in identified geographical space, in a cyber space too, one can find a shared system of beliefs, values and norms, specific ways of doing things, a common understanding of symbols as emotions, and other signs that can promote a collective sense of cohesion.[21] Such cohesion helps promote shared understandings as they develop in a virtual world, such as a set of shared habits, values and likings. Individuals find affinity with others around their specific ideological or political orientations and connect on an online environment.

Thus, the structural-functionalist approach of community formation, as referred to in the previous section, also applies to cyber culture in a similar way than in physical space. Cyberspace is used as a virtual structural platform where individuals sharing common understandings unite themselves through their everyday functions. Often it is questioned whether a virtual community can form what could be a considered a new example of a "tribe",[22] or a completely distinct community. According to Soraj Hongladarom:

> [T]he potential of the Internet in forming "virtual" communities incurs a number of problems, chief among which is the relation between the community formed by the Internet itself and the existing communities bound by locality and cultural tradition."[23]

However, the formation of such a community, and any resulting problems with local cultural traditions are mostly due to lack of adaptive management in a given context. The narrowing of

---

[20] Pippa Norris, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide.* (Cambridge University Press, 2001) 195-216 <https://sites.hks.harvard.edu/fs/pnorris/Acrobat/digitalch10.pdf> accessed 7 January 2018.

[21] Ardevol (n 16).

[22] Ibid.

[23] Soraj Hongladarom, 'Global Culture, Local Cultures and the Internet: The Thai Example' (December 1999) 13(4) AI & SOCIETY 389, 389-90.

digital divides (as discussed in the next section) are expected to reduce these problems. Cyber culture does have transformative effects on traditional culture, and thereby it has potential to re-shape some aspects of communal identity. David Bell asserts:

> "[.].. in computer mediated communication … freeing us from the restrictions of our real-life identities … we can endlessly re-invent ourselves, present infinite different selves in different online environment, and experiment with who we are and who we want to be. Cyberspace is seen here as a kind of performance space …"[24]

While sometimes it is argued that a virtual community runs the risk of losing all sense of (real) identity as one becomes further submerged in cyberspace,[25] it is also true that the mind-set of individuals as developed in their surrounding physical space also have a substantial effect on their communal interactions in cyberspace. Interactions can develop a sense of community and belonging for individuals that share similar characteristics cultivated in offline social life – the online community only makes sense in relation to offline social political and cultural contexts.[26] Thus, cyberspace does not provide with a superficial world in contrast to real world. The members of any online community communicate with each other, talk to each other, and influence each other from both ends, as they do in their physical environment.

While the formation of online communities continues to rapidly develop, it still connects to the physical world. Virtual culture influences traditional culture, and vice versa. Culture in itself is an integrated whole, and cyber culture is just a new segment, or emergent cultural model, that fits within this integrated whole. This follows a cultural analysis approach, where an observers' mindset is reflected, either in traditional form or in modified form, in any given situation. It is argued that cyber culture will contribute to accelerating cultural changes by transmitting these values across societies.[27] Virtual communities are "in part a response to the hunger for community that has followed the disintegration of traditional communities around the world".[28] Despite the apparent differences between a virtual and traditional community,

---

[24] Bell (n 1) 110.
[25] David Holmes 'Virtual Identify: Communities of Broadcast, Communities of Interactivity' in David Holmes (ed), *Virtual Politics Identity and Community in Cyberspace* (Sage Publication, London 1997) 26-45.
[26] Ardevol (n 16).
[27] Norris (n 20).
[28] Howard Rheingold, *The Virtual Community: Homesteading on the Electronic Frontier* (Addison-Wesley, Reading, Massachusetts 1993) 62.

they are however, modest.[29] A virtual community can be defined within the broader cultural matrix as yet another thread within a complex social fabric.[30] It is an adaptive process where communities in different environments talk to each other, perhaps in different languages and in different settings, with different intentions and motivations. Thus, ICTs, in fact, contribute to re-shape culture once transformed, by absorbing elements produced by "technological determinism".[31] To understand online interaction as social practice, it is important to break down the dichotomy between online and off-line interactions or, in other words, between virtual and real.[32] The following section discusses digital divides in order to clarify gaps in our understanding of online interaction as social practice, and to show how traditional culture and cyber culture influence each other in rather sophisticated ways to re-shape broader culture and cultural identity.

3.3. Digital divides

The term 'digital divides' is often referred to in discussions regarding information and communication technology. It implies prevailing gaps within societies and regions, and amongst their population, in terms of opportunities, access, education and training, skills as well as enthusiasm as it relates to the use of information and communication technology. According to OECD, digital divides "refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access to information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities".[33] As previously noted, a radical transformation has taken place in the flow of information and communication technology where, unlike in the physical environment, relatively few barriers, in terms of resources, infrastructure and technological restrictions exist between nations, states, groups and individuals, to restrict our movements and thoughts. Differences in access to ICT and its use can be found within the

---

[29] Norris (n 20).
[30] Gale Encyclopedia of E-Commerce (n 19).
[31] Bell (n 1) 110.
[32] Ardevol (n 16).
[33] *Understanding the Digital Divide* (OECD, Paris 2001) 5
<http://www.oecd.org/internet/ieconomy/1888451.pdf> accessed 7 January 2018.

EU,[34] between the Nordic countries,[35] as well as within a country.[36] However, in terms of access, the Nordic states have high levels of Internet access while other societies, for example in Mediterranean Europe, have minimal access.[37] Nevertheless, "…a higher risk of digital exclusion of the elderly, women, population with lower income, education attainment, those with disabilities, those living in rural areas, and ethnic minorities …"[38] remains present across the EU.

As a result, the gap between users and non-users of technology represents a divide. It is generally evident that the online community is disproportionately represented by younger rather than older generations, and internet use by older generations, particularly in rural communities, still lags behind. The former are affluent and well educated, and largely sympathetic to post-material values.[39] Pippa Norris provides empirical evidence suggesting that in Europe about one-third of under 25 year olds use the internet, which is ten times higher in comparison to the retired population.[40] Surely, over the last decade the ratio has apparently been much increased. Nevertheless, disproportionate internet use still exists not only across generations, but also across communities, and between rural and urban regions. For example, the EU publishes statistics on a regular basis on the percentage of internet use. According to the 2016 statistical findings, 14% of the EU population have never used the internet. The ratio of internet use in the EU is on the increase. Today over 80% of the EU population has been found to have used internet at least once in the previous three months. The EU had a digital agenda to increase internet usage and set a target to achieve 75% of the population using the internet by 2015, and they met their goal by the year 2014. However, the level of use per individual country is below the target at least for ten member states.[41]

---

[34] Frederico Cruz-Jesus, Tiago Oliveira and Fernando Bacao., 'Digital Divide Across the European Union' (2012) 49(6) Information and Management 278-91.
[35] Pekka Räsänen 'The Persistence of Information Structures in Nordic Countries' (2008) 24(4) The Information Society 219-28.
[36] Roberto Gallardo, *2015 Digital Divide Index* (2017) <http://ici.msucares.com/sites/ici.msucares.com/files/2015_ddi.pdf> accessed 08 January 2017.
[37] Norris (n 20).
[38] Cruz-Jesus et. al. (n 34) 278-91.
[39] Norris (n 20).
[40] Ibid.
[41] Eurostat Statistic Explained, 'Internet Access and Use Statistics - Households and Individuals' <http://ec.europa.eu/eurostat/statistics-explained/index.php/Internet_access_and_use_statistics_-_households_and_individuals#Main_statistical_findings> accessed 7 January 2018.

It is suggested that non-participants in the technological revolution will eventually be excluded in the process of progress. An increase in participation is expected to reduce gaps in digital divides. Otherwise, digital divides will result in a definitive social division that exacerbates existing unequal divisions such as between the rich and poor.[42] In any case, the growing influence of cyber culture on traditional culture will eventually blur existing digital divides, as internet usage permeates daily life. In regional settings therefore, online inclusion, in particular in relation to elderly people or people with physical disabilities[43] will help narrow the divide, and will promote a culture inclusive of virtual reality.

3.4. Influence on traditional values

It has been argued that a community created in an online setting displays a post-materialistic ideology, which can be justified by the theory of post-material value change.[44] According to this theory, technological and economic development lead to a profound transformation of social and economic systems, which eventually lead to a dramatic shift in socio-cultural and political values.[45] This creates new dynamics in regards to ethical issues and social values. New social movements favoring secular rather than traditional moral values become gradually pre-dominant amongst many, particularly in Western countries, in the virtual world. Social justice issues such as LGBT rights, civil rights, and feminist movements as well as liberal approaches to lifestyle, economic freedom, transparency and lack of government intervention on issues like welfare and business regulation, are more present in the virtual world.[46] Based on his empirical findings, Pippa Norris argued that both in Europe and America, virtual communities are more cosmopolitan in their orientation. They identify more weakly their affiliation with their local towns favoring more cosmopolitan rather than local identities. [47]

---

[42] Ardevol (n 16).

[43] Paul Timmers, 'EU e-inclusion policy in context' (2008) 10(5/6) Info 12-19; United Nations 'E-Government Surveys' <http://www.unpan.org/egovkb/global_reports/08report.htm> accessed 7 January 2018; Björn Niehaves, Ralf Plattfaut, Elena Gorbacheva and Peter H. Vages, 'Analysis of e-inclusion Projects in Russia, Austria and Switzerland' (2010) 7(2) Interactive Technology and Smart Education 72-84; David Wright, 'Structuring Stakeholder e-inclusion Needs' (2010) 8(2) Journal of Information, Communication and Ethics in Society 178-205.

[44] Norris (n 20).

[45] Ronald Inglehart, *Culture Shift in Advanced Industrial Society* (Princeton University Press, 1990); Ronald Inglehart, *Modernization and Postmodernization: Cultural, Economic and Political Change in 43 Societies* (Princeton University Press, 1997); Ronald Inglehart and Wayne E. Baker, 'Modernization, Cultural Change and the Persistence of Traditional Values' (2000) 65 American Sociological Review 19-51; Ronald Inglehart and Pippa Norris, 'The Developmental Theory of the Gender Gap: Women's and Men's Voting Behavior in Global Perspective' (2000) 21(4) International Political Science Review 441-62.

[46] Norris (n 20).

[47] Ibid.

However, such a communal mindset in the virtual world is not universal. The contrary can be found amongst other virtual communities influenced by extremely conservative and religious values, e.g., religious extremists may find their own virtual community around their ideology, which is opposite to what the theory of post-material value change professes. In fact, the identity of an individual within a community is developed and shaped by the values and attitudes prevalent at home, and in the surrounding community. This identity becomes more complex and fluid over time. It develops and changes as the belief systems and ways of life adapt to other cultural influences,[48] hence aligning with the so-called structural-functionalist approach in the adaptation to, and transformation of, culture. Therefore, the forming of a virtual community is argued in fact to reinforce the attitude and values held in the physical world rather than alter them.[49] In any case, the narrowing of digital divides will create the opportunity to integrate knowledge broadly across cultures to influence individual and community mindsets.

4. Sámi culture and identity

The Sámi are indigenous peoples that inhabit the northern parts of three Scandinavian countries – Finland, Norway and Sweden – and Russia's Kola Peninsula, and are often referred to as the only legally recognized indigenous people of Europe.[50] The region that the Sámi have traditionally inhabited is referred to as *Sápmi* – a territory of 400,000 square kilometres traversing across the northern part of these four countries. The exact number of Sámi people varies since they are counted based on their enrolment on to the national voting registries. Person's identification as Sámi has increased, especially in Norway, after the establishment of Sámi Parliaments in three Nordic countries in the 1990s.[51] However, it is estimated that there are between 80,000 and 100,000 Sámi altogether, and split approximately as follows: 50,000 -

[48] Suzanne Romaine, 'Identity and Multilingualism' in Kim Potowski and Jason Rothman (eds), *Bilingual Youth Spanish in English-speaking societies* (John Benjamins Publishing Co., 2011).
[49] Norris (n 20).
[50] Thomas R. Hilder, *Sámi Musical Performance and the Politics of Indigeneity in Northern Europe* (Rowman & Littlefield, 2015).
[51] In 2013 roughly 15,000 persons were registered as Sámi in Norway, compared to 8000 in Sweden. In Finland the growth of the Sámi electoral register was 55% between 1992 and 2011, from nearly 8000 to approximately 10,000. The growth in the number of registered Sámi in Norway increased 172% from 1989 to 2013 compared to 4–5 times in some large and medium-sized towns. See Torill Nyseth and Paul Pedersen 'Urban Sámi Identities in Scandinavia: Hybridities, Ambivalences and Cultural Innovation' (2014) 31(2) Acta Borealia: A Nordic Journal of Circumpolar Societies 131, 137, DOI: 10.1080/08003831.2014.967976.

65,000 in Norway, 20,000 - 40,000 in Sweden, about 8,000 - 10,000 in Finland and about 2,000 in Russia.[52] While in terms of communal and indigenous identity, the Sámi are regarded a homogenous group of people, they are also formed of several sub-groups, such as North Sámi, South Sámi, forest Sámi, sea Sámi, Inari Sámi, Skolt Sámi etc.[53] They also speak different languages. Often divided into two main groups – western languages and eastern languages – the Sámi languages respectively include South, Pite, Ume, Lule, Skolt, Inari, Kilden and Ter Sámi. North Sámi is the most widely used language and is spoken in all four countries.[54] However, several Sámi peoples live outside of the Sápmi homeland, and in addition, there are several other sub-groups within Sápmi.

Despite these differences, the Sámi find commonality in sharing a common geo-physical space wherein socio-cultural structure and environmental conditions are based on identical characteristics compared with that of the rest of the other parts in their respective countries. In all four countries, the Sámi have common traditional livelihood practices, a collective understanding of the world, and conditions for the promotion of socio-cultural identity and political solidarity.[55] For example, reindeer herding is a common means of livelihood practice across the region. In addition, the Sámi also practice hunting, fishing, farming and small-scale agriculture as part of their traditional livelihood. In the present day context, they combine more and more traditional livelihoods with other practices, such as tourism and services. Many of them are also employed in public and private sectors.[56]

In fact, reindeer herding is an emblem of Sámi culture – and Sámi culture is often synonymized to reindeer herding.[57] Once traditionally semi-nomadic, the Sámi – at least those living in their homeland – are still engaged in such other traditional activities like hunting, fishing, small-

---

[52] The Sámi - The People, Their Culture and Languages (Council of Europe, 2015) <https://edoc.coe.int/en/national-minorities/6684-the-sami-the-people-their-culture-and-languages.html> accessed 7 January 2018.

[53] Lara van Waas, *The Sami in Finland On EU Law, Land Rights and Preservation of the Sami Culture*, Master's thesis (2013) <https://tampub.uta.fi/bitstream/handle/10024/85046/gradu07080.pdf?sequence=1> accessed 7 January 2018.

[54] The Sámi - The People, Their Culture and Languages (n 52).

[55] Jouni Kitti, 'Finnish Sámi reindeer husbandry and culture' <http://jounikitti.fi/englanti/reindeereng.pdf> accessed 8 January 2018.

[56] The Sámi - The People, Their Culture and Languages (n 52).

[57] Timo Koivurova, Vladimir Masloboev, Kamrul Hossain, Vigdis Nygaard, Anna Petrétei and Svetlana Vinogradova, 'Legal Protection of Sami Traditional Livelihoods from the Adverse Impacts of Mining: A Comparison of the Level of Protection Enjoyed by Sami in Their Four Home States' (2015) 6(1) Arctic Review on Law and Politics 11-51; Irja Seurujärvi-Kari et. al., *The Sámi - the Indigenous People of Northernmost Europe* (European Languages, European Bureau for Lesser Used Languages, Brussels 1997) 21.

scale agriculture and farming. Throughout the historical processes, the Sámi, at different times, have been subject to the assimilation policies of the countries in which they inhabit. However, with the birth of the indigenous movement in the 1970s, the Sámi culture began revitalizing, and efforts to promote their traditional identity and protect their culture and cultural heritage grew.[58] However, most Sámi today live outside of the Sámi homeland, and in urbanized cities, hence creating new and different identity heavily influenced by multicultural urban settings.[59] Therefore, often the 'Sámi-ness' of this population is questioned.[60] Only a relatively small segment of the Sámi live in the Sámi homeland, that are connected to traditional activities, and are the stewards of Sámi traditional culture. They in fact represent Sámi identity, while most living in urban settings find a strong affinity to this distinct identity. The Sámi inhabiting their homelands, despite their traditional practices, also increasingly participating in modern activities and many of them take advantage of the opportunities offered by regional development, such as an increased use of information and communication technology.[61]

In any case, as mentioned before, reindeer herding is a common means of subsistence, and culturally significant for many Sámi living in their homeland.[62] While there are varied norms in herding practices, the Sámi culture has been developed around reindeer herding activities. Even though, as referred to earlier, reindeer herding and Sámi are synonymous in terms of their cultural identity, in certain jurisdiction, such as in Finland, the practice of reindeer herding can be conducted by non-Sámi persons. Thus, in addition to the Sámi, locals inhabiting the region are also involved in herding activities. However, reindeer herding is exclusively a Sámi right in Norway and Sweden.[63] Today only 10% of the Sámi population are engaged in herding activities, and herding practices have fundamentally been changed through the adoption of new techniques and methods such as the use of snowmobiles, helicopters, and digital technologies.[64]

---

[58] Camilla Brattland, 'Mapping Rights in Coastal Sami Seascapes' (2010) 1(1) Arctic Review on Law and Politics 28-53.
[59] Nyseth et. al. (n 51) 132.
[60] Torunn Pettersen, *Sámi Ethnicity as a Variable Premises and Implications for Population-Based Studies on Health and Living Conditions in Norway*, A dissertation for the degree of Philosophiae Doctor (UiT The arctic university of Norway, Sámi University College, 2014) <https://munin.uit.no/bitstream/handle/10037/8354/Thesis.pdf?sequence=9&isAllowed=y> accessed 8 January 2018.
[61] Avri Doria, Maria Uden and Durga Prasad Pandey, 'Providing Connectivity to the Saami Nomadic Community' (2002) <https://pdfs.semanticscholar.org/c3c6/5eb9aefa2589ee98803081ea8b9395a670fb.pdf> accessed 8 January 2018.
[62] Joan Nymand Larsen and Gail Fondahl (eds), *Arctic Human Development Report: Regional Processes and Global Linkages* (Nordic Council of Ministers, Copenhagen 2014) 136.
[63] Koivurova et. al. (n 57).
[64] Laura Westra, *Environmental Justice and the Rights of Indigenous Peoples International and Domestic Legal Perspectives* (Earthscan, London 2008) 72.

Whereas this shift to new technological methods makes some aspects of reindeer herding more commercial in nature than traditional, the practice is still regarded as the core of Sámi culture, and the practice as such adheres to Sámi cultural identity. However, herding itself is considered a Sámi cultural "reservoir",[65] which plays a major role in Sámi spiritual life, religions, and language.[66] The practice of herding remained the only element exclusively understood to create Sámi culture and identity.[67] In fact, the use of a Sámi language is particularly functional in the practice of herding knowledge as it passes from one generation to the other with a rich vocabulary regarding animals, landscapes and climatic conditions.[68] As previously mentioned, despite adapting to new livelihood practices, Sámi people's relationship to reindeer herding has maintained special significance for Sámi spirituality and cultural identity. The practice of reindeer herding is not only about Sámi's physical sustenance, but it is also about maintaining traditionally held rituals, ceremonial roles, and emotional bondage. Sámi traditional knowledge allows them to observe and sustainably maintain reindeer herding practices. The traditional perception held by the Sámi is that both humans and animals have their own place in the world, but their environment is commonly shared, which facilitates an integrated social bond between them.[69] Living in harmony with the land and nature as well as with its dwellers creates an immediate relationship. The values and customary norms held by the Sámi are derived from this relationship. This relationship is reflected in Sámi *yoiks* – a unique form of musical expression using the voice as an instrument – where elements connected to life are expressed in a deeply personal and spiritual nature.[70] The Sámi identity is rooted in this worldview, and revealed in the most important ritualistic symbols and tools, such as the shaman's drum made from reindeer skin. Moreover, by-products of reindeer are also used for Sámi handicrafts or *doudji* – creative activity performed by hand – is practiced across *Sápmi*. The practice, while enhancing local economies, also allows Sámi peoples to continue their cultural identity.[71]

---

[65] Trond Thuen, 'Culture as Property? Some Saami Dilemmas' in Erich Kasten (ed), *Properties of Culture – Culture as Propoerty. Pathways to Reform in the Post-Soviet Siberia* (Dietrich Reimer Verlag, Berlin 2004) 89.
[66] Finish Environment Institute, 'Climate Change and the Finnish Sami' (2015) <https://ilmasto-opas.fi/en/ilmastonmuutos/vaikutukset/-/artikkeli/98d25017-430a-405b-80f3-ddefcc534d75/saamelaiset.html> accessed 8 January 2018.
[67] Thuen (n 65) 89.
[68] Robert Paine, *Herds of the Tundra. A Portrait of Saami Reindeer Pastoralism* (Smithsonian Books, 1994).
[69] Elina Helander-Renvall, 'Animism, Personhood and the Nature of Reality: Sami Perspectives' (2010) 46(1) Polar Record 44, 47, doi:10.1017/S0032247409990040.
[70] Lana Vidmar, *The Sami and the Changing Arctic,* Master's thesis (Lubljana University, 2016) <http://dk.fdv.uni-lj.si/magistrska/pdfs/mag_vidmar-lana.pdf> accessed 8 January 2018.
[71] Ibid.

5. Sámi identity, cyber culture and human security

Today, the expansion of information-based societal development has influenced the traditional culture of the Sámi, which have adaptive to any new developments. The Sámi have remained resilient throughout generations of transformation. They have managed new changes and adaptations that impact their traditional culture. This is true in all spheres of their culture, from belief systems to everyday practices. Despite some minor resistance, (such resistance is common to any society), they have remained tolerant of post-material values that can include women's empowerment, liberal religious values, pro-human rights views, and the role of innovation and technology. Such a view can be found, for example, in the work of Jorunn Eikjok, who viewed the Sámi way of life from an "anchored in nature to one featuring modern and diverse lifestyles…"[72] The Scandinavian countries are more progressive, and therefore have created a more open environment for individuals to accept such views. Concerning the acceptance of new innovations, the Sámi have generally integrated all new technologies in their daily lives.[73]

Today, members from the Sámi community, in particular the youth, have left the region for various reasons, including education or employment. As is common in other communities, they communicate with their relatives through digital technology. The advent of e-learning practices has also allowed many Sámi to learn their language while living outside their homeland.[74] Given the small size of the Sámi community across a sparse region, diversity in interactions with people can be difficult due to their remoteness and distance– for which internet is a very useful tool, and increasingly used.[75] The school system in the North, including Sámi institutions, increasingly provide access to e-materials and digital infrastructure to their pupils.[76] Today, the younger generations of Sámi communities, like in any other communities,

---

[72] Jorunn Eikjok, 'Gender, Essentialism and Feminism in Samiland' in Joyce Green (ed), *Making Space for Indigenous Feminism* (Trans. Gunhild Hoogensen) (New York: Wed Books Ltd, 2007) 108-123, 108.
[73] Arvid Viken and Dieter K. Müller, 'Indigeneity and Indigenous Tourism' in Arvid Viken and Dieter K. Müller (eds), *Tourism and Indigeneity in the Arctic* (Channel View Publications, Bristol 2017).
[74] Madoka Hammine, 'Sami languages in Education in Sweden and Finland', *ECMI Working Paper*, No. 92 (2016) 1-23, 11.
[75] Pigga Keskitalo, Satu Uusiautti and Kaarina Määttä, 'How to Make the Small Indigenous Cultures Bloom? Special Traits of Sámi Education in Finland' (2012) 15(1) Current Issues in Comparative Education 59.
[76] For example, Finland has adopted a number of projects to implement its education, teaching and learning strategies in order to promote innovation in its education system using ICT infrastructure. See, for example, 'OECD Study on Digital Learning Resources as Systemic Innovation: Country Case Study Report on Finland', at: http://www.oecd.org/education/ceri/41951860.pdf; See also, 'The Sami language in education in Sweden' at: https://www.mercator-research.eu/fileadmin/mercator/documents/regional_dossiers/saami_in_sweden.pdf,

are more acquainted with internet culture. As a result, they are influenced by global culture, which is often seen by the critics as challenging Sámi cultural traditions. A study conducted by Zojer and Hossain provided empirical findings that even the young generation in the rural North prefer to play computer games than practice traditional cultural activities.[77] Reindeer herding practices – the core of the Sámi culture – do not much attract the young Sámi anymore.[78] As digital technology offers incentives to make herding easier, adaptation to digital developments are underway amongst the Sámi community.

In a similar way, the expansion of online services, such as internet shopping or e-commerce services (e.g. online banking) and services for public administration and promotion of tele-medicine services apparently reduces people's movement in the region culminating to less and less travelling to the centers of those services, which eventually reduces use of fossil fuel. As a result, such behavior contributes to reduced carbon emissions to the atmosphere, which contributes to a healthy environment and the maintenance of Sámi traditional land use practices. However, Sápmi is increasingly becoming a tourist destination, and tourism activities can contribute to detrimental impacts on the natural environment. While environmental sustainability considerations are being integrated in tourism development, the use of digital technology brings also sophistication in tourism. Digital technology help visualize Sámi traditional culture and contributes to the promotion tourism in the form of a theme park, for example. As tourism grows, visual performances presenting traditional Sámi culture highlight the traditional culture of the reindeer herding Sámi. Such visualization, for instance, presents the replacement of traditional reindeer-drawn transportation by four-wheeled motorbike resulting in pollution and noise to Sámi's fragile natural environment. Digitalized narratives of the Sámi culture this way link them with the rest of the world and globalize knowledge of their culture without much destroying their natural environment.[79]

On a more practical level, as indicated earlier, the Sámi culture has been adapting to technological innovation, as evidenced by the use of snow-mobile or helicopter in the reindeer

---

where it was referred to that distance-learning course, using interactive media such as video conferencing for Sámi language teaching has been in place for since the beginning of last the decade.

[77] Gerald Zojer and Kamrul Hossain, *Rethinking Multifaceted Human Security Threats in the Barents Region: A Multilevel Approach to Societal Security* (University of Lapland Printing Centre, Rovaniemi 2017) 53.

[78] Ibid.

[79] Stein R. Mathisen, 'Indigenous Spirituality in the Touristic Borderzone: Virtual Performances of Sámi Shamanism in Sápmi Park' (2010) 46 (1) The Finnish Society for the Study of Religion Temenos 64.

herding practices.[80] Today, GPS tracking methods are used in herding practices. For example, GPS-collars are placed on the reindeer so that herders can track them. In this way, the herders also utilize new methods of identifying techniques concerning the ownership of reindeer, which reduces the communal workload of the herders.[81] This also benefits land use planning, as the living environment becomes visible with the help of GPS-collar data, which is useful not only for herding practices but also to learn about pasture circulation on maps. Similar kinds of data are also collected and utilized, for example, in vast mining projects undergoing impact assessments or seeking to gain social licenses for operation.[82]

This integrative approach using the benefit resulted from information and communication technology, in fact, offers them an opportunity to promote and modernize their culture, and in fact, not to jeopardize the culture. The use of information-based innovation also helps the Sámi to effectively raise their voices, and to include them, in any process that affect their livelihoods and socio-cultural, economic and environmental practices. For example, in all across the Sápmi region in recent years, extractive industrial developments have been increasingly popular given that the region contains rich mineral deposits. Such developments are argued to be affecting Sámi traditional culture and cultural practices, in particular reindeer herding practices, as land use patterns transform.[83] Since Sámi traditional knowledge plays an important role in understanding the region, and its natural surroundings, and internet platforms offer an important venue for sharing and better communicating this knowledge, which helps protect their culture.

Moreover, procedural processes to include Sámi in decision making, such as the Environmental Impact Assessments (EIAs), or Social License to Operate (SLO) for companies operating in the Sámi homeland, can integrate online platforms for conducting surveys, for example.[84]

---

[80] Jérémie Gilbert, 'Indigenous Peoples, Human Rights and Cultural Integrity' in Michele Langfield, William Logan and Máiréad Nic Craith (eds), *Cultural Diversity, Heritage and Human Rights Intersections in Theory and Practice* (Routledge, 2010) 37.

[81] Svein Morten Eilertsen, Bioforsk Tjøtta and Egil Pettersen, Telespor As., 'Electronic Matching of Female Reindeer and Calves' (2014) <http://www.bioforsk.no/ikbViewer/Content/116337/TEMA_Reinsdyr%20Svein%20Morten%20201114.pdf> accessed 8 January 2018.

[82] 'Utilising Reindeers' GPS-collars in Project Planning' <http://www.poyry.fi/sites/www.poyry.fi/files/media/related_material/reindeers_gps-collars.pdf> accessed 8 January 2018.

[83] Rebecca Lawrence and Rasmus Kløcker Larsen, 'The politics of planning: assessing the impacts of mining on Sami lands' (2017) 38(5) Third World Quarterly 1164, 1165.

[84] Kieren Moffat and Airong Zhang 'The paths to social licence to operate: An integrative model explaining community acceptance of mining' (2014) 39 Resources Policy 61–70.

Relevant information can be shared in an online environment by a given company along with possible social, environmental, and cultural effects on the community and the region, as well as possible measures to be taken to mitigate any potential damages. Companies, as part of their social responsibility, increasingly integrate changes brought about by digitalization and globalization in local communities.[85] Through online platforms, companies are also able to announce meetings and consultation processes with locals and indigenous communities such as the Sámi, to reach common and mutual understandings amongst all parties involved. These measures could be a step towards ensuring that cultural wholeness does not become a threat to the survival of the community, but contributes to building an adaptive and resilient community. Indeed online support provides effective and efficient tools whereby community involvement and inclusion are easily ensured. Such potential inclusions offer the Sámi a confidence in their struggle for a right to self-determination. They become partners in democratic decision-making processes more easily facilitated by the process of digitalization as it expands.

The availability of sources online in a Sámi language, has in the past been relatively small.[86] Today enthusiasm grows in the learning of the Sámi language, yet online sources in Sámi language have not much developed. Moreover, the internet is generally dominated by websites in English. Many Sámi living in their traditional homelands are either not fluent in English, or are reluctant to read English. Whereas the internet can be used as an incentive to learn English, it may not be ideal for the Sámi who live in their traditional homelands and are engaged in traditional livelihood activities. Instead, there is a greater interest in using their national languages, such as Finnish, Norwegian, Russian or Swedish, to English, in an online environment.[87] Hence, lack of information flow in Sámi language can be argued to challenge to the survival of their languages,[88] - the challenges that can be mitigated through the promotion of online information outlets in Sámi languages. Such an endeavor is expected to not only promote Sámi views, but also to help revitalize their language. Integration of technological innovations to their full potential will promote the promotion of the Sámi's right to self-determination and the revitalization of their culture and language. Obviously, digital

[85] For example, Innofactor – a company that provides services to digitalize business by utilizing intelligent cloud services. The company is active in Nordic countries. As part of its corporate and social responsibility, the company provides facilitation to make business more efficient, and community friendly. See Innofactor, at: http://www.innofactor.com/company.
[86] Forsgren Aanta, 'Use of Internet Communication Among the Sami People' (Cultural Survival Quarterly Magazine, 1997) <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/use-internet-communication-among-sami-people> accessed 8 January 2018.
[87] Ibid.
[88] Ibid.

technology and the internet provide a great deal of opportunity to develop Sámi culture even further, and to introduce their distinct culture to the rest of the world. Hence, Sámi identity and cyber culture are mutually supportive and complementary, and offer the promotion of their unique culture and cultural identity.

To the extent that culture and identity adopt meaning from various elements prevailing in society and transform along with new developments including development in ICT sector, tension may arise between post-material values, gradually perceived as part of the expansion of cyber culture, and traditionally held values. This article shows that perceived values are not homogenous. There is a diverse set of both complementary and conflicting values existing in cyber space. The creation of values is reflective of an individuals' mind set. Therefore, fear of cyber culture threatening traditional culture is just an over simplified argument. Moreover, perceived threats related to cyber culture may be misunderstood due to digital divides, or due to an inability to utilize the full potential that new technology offers. The discussions on the Sámi presents the argument that, despite its challenges, cyber culture provides with the potential to develop and reshape, and not to destroy, their culture and cultural identity, taking advantage of modernity.

6. Conclusion

The question presented in this article is whether two cultures – culture in physical geographical space and culture developed in cyber space – exist in parallel; as well as whether they present two separate cultures or interact with each other. The conclusion suggests that culture must be viewed as an integrated whole, existing in both physical space and societal contexts amongst communities, and where interactions via a cyber platform essentially play a supportive role in modernizing existing cultures and cultural practices. This analogy applies to the Sámi of the EHN, and is exemplified by the integration of practices within existing cultural settings developed from cyber usage.