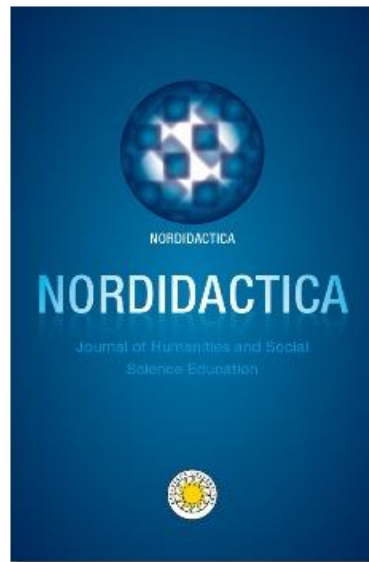


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Reading the geographical content of media images as part of young people's geo-media skills

Markus Hilander

Department of Teacher Education, University of Helsinki

Abstract: As a new set of skills, geo-media tools and resources are being introduced in the Finnish comprehensive school curriculum, although an explicit definition of 'geo-media' is not given. In the Finnish upper secondary school curriculum, geo-media is described with one sentence. In this article, the concept of geo-media is approached with online questionnaires introduced to Finnish and international experts on geography education and geo-media (n=6) and Finnish geography teachers (n=22). Both groups tend to perceive geo-media as digital sources used in geography education. Yet, teachers think that geo-media will not change their teaching practices. In the literature, geo-media refer to all media that carry georeferenced information. Therefore, this paper introduces three visions of how geo-media can be understood as a broader concept; that is, geographical media literacy skills. The first example is (1) a photograph of 'Reverend Billy' with which the value of geolocative information is studied with the semiotic procedure of a 'commutation test.' The second example is (2) an advertisement by Diesel, in which geographical stereotypes are questioned with a semiotic process of the 'transfer of meanings.' The third example, (3) a Finnish cartoon strip 'Viivi & Wagner,' highlights the role of global events when reading images from a geographical perspective. Although location plays a crucial role in all three of the examples, the experts and the teachers did not pay that much attention to the question of 'where.' In consequence, young people need to be competent in interpreting and evaluating the geographical content of visual re-presentations before producing geo-media presentations of their own.

KEYWORDS: GEO-MEDIA, GEOGRAPHY EDUCATION, INTERPRETATION OF PHOTOS, MEDIA IMAGES, SEMIOTICS, VISUAL LITERACY

About the author: Markus Hilander is a doctoral student at the Department of Teacher Education, University of Helsinki, Finland. The topic of his dissertation is the interpretation of photos from a geographical perspective. Instead of being interested in the 'final' meanings of visual re-presentations, he approaches the processes during which the meanings are produced from the perspective of existential and visual semiotics.

Introduction: From 'geo-graphy' to 'geo-media'

There is a considerable pressure towards change and renewal when it comes to geography education in Finnish schools; from the year 2016 onward there will be only one compulsory course in geography at the high school level. Moreover, the matriculation examination in geography will be executed with computers—which means maps and graphics cannot be made with pencil and paper—and there is a shift away from content-based learning to a more skill-based learning (Linkola 2014; Pellikka, Valta-Hulkkonen & Virranmäki 2015a; Ratvio & Jylhä 2014; Ruth 2014). In geography education, these skills include, for instance, geographical thinking skills and an ability to form and ask geographical questions as well as ponder answers to these questions (Pellikka, Valta-Hulkkonen & Virranmäki 2015b; Perusopetuksen... 2014). In addition, geo-media skills are introduced as a new set of skills in the reformed Finnish national core curriculum for basic education (Perusopetuksen... 2014) and in the Finnish national core curriculum for upper secondary school (Lukion... 2015) both of which will be implemented in schools in 2016. However, in these documents it is not explicitly described what is actually meant by 'geo-media' and 'geo-media skills.'

The research gap that this study engages in filling originates in the fact that geo-media lacks a definition and there is no published research on it yet. Furthermore, references to geo-media in the Finnish school curricula are rather vague. Thus, there is a demand for a more detailed description of geo-media so that answers to Professor Sirpa Tani's questions "what is the essence of geography" and "for what do young people need geography" can be delivered (Linkola 2014); that is, conceiving the role geo-media plays in answering these questions. Therefore, this article concentrates on defining geo-media and geo-media skills by asking geography experts and geography teachers how they conceive of geo-media. Consequently, this article builds a basis for further study, such as investigating the extent to which geo-media fosters young people's thinking skills in geography. In addition, three visions of what geo-media can be about are presented in this article. These visions include interpreting (1) a photograph of 'Reverend Billy' taken by a professional photographer and its geolocative information, (2) an advertisement by Diesel and its geographical banality, and (3) a Finnish cartoon strip 'Viivi & Wagner' and its geographical events. These media images are studied within a semiotic framework; that is, a 'commutation test' is used to interpret the photograph of 'Reverend Billy' and the 'transfer of meanings' is used to analyze the Diesel advertisement.

In the Finnish comprehensive school curriculum (2014), geo-media and geo-media skills are referred to 13 times and in the upper secondary school curriculum (2015) 22 times; mainly thanks to the description of one optional course entitled *Geo-media—study, participate, and make a difference*¹ (*Geomedia – tutki, osallistu ja vaikuta*). In these cases, the word 'other' is used 11 times alongside the word 'geo-media'; for instance, "students know how to exploit maps and *other geo-media* in researching and presenting information" [italics added] (Perusopetuksen... 2014, 245). In the comprehensive school curriculum (2014), the words 'other' and 'geo-media' go

together in 62 % of the 13 cases in which geo-media are mentioned. To some extent, it gives expression to the fact that the very word *other* is what defines geo-media the best. In this article, I focus on what the 'other' could mean in the broader sense of understanding geo-media. Therefore, here the *geo-media skills* are understood as *geographical media literacy skills*. The leap itself from 'geo-graphy' to 'geo-media' suggests that geo-media, or 'geo-aware media' (Fischer 2014, 12), is not only about graphs and graphics, but is about all the media presenting geographically explicit references, one way or another. Therefore, not only do young people need the skills of reading written text, but they also need the skills of media and visual literacies in order to question what sort of worldview the media is offering them (Kupiainen & Sintonen 2009, 104–105). For instance, Andersen and Miller (2010, 163) call media literacy the "literacy of our time".

The power of visual culture is influencing the lives of young people more than ever, and the vast production of visual re-presentations,² as well as young people's skills in visual literacy, are much discussed topics. It is recognized that due to increasing use of geo-media, also visual re-presentations are used more and more in geography education. In the Finnish context, the forthcoming computerized final exam in geography—which is an optional exam for the students in Finland at the end of high school—enables even more profound use of visual re-presentations and puts more emphasis on the student's skills in interpreting visual data (Ratvio & Jylhä 2014). In addition, visual literacy skills and their pedagogical opportunities are not limited to classrooms. On the contrary, young people face visual re-presentations, among other things, in the form of television programs, movies, social media, newspapers, magazines, and advertisements (Favero 2014; Sintonen, Kynäslahti & Kairavuori 2014; Tani 2014). Hence, the visual catalogues of global media can be taken as the main element of contemporary visual culture (see, Räsänen 2013, 272).

The research questions of this article are as follows:

1. What is the essence of geo-media according to the Finnish and international experts on geography education and geo-media, Finnish geography teachers, and the Finnish national core curricula for basic education and upper secondary school?
2. What is the role of the interpretation of photos and media images within geo-media skills?

Methodology

To approach the concept of geo-media, online questionnaires were introduced to international and Finnish experts on the fields of geography education and geo-media. The six experts answering the questionnaire are presented in Table 1.

TABLE 1.

Names and affiliations of the experts.

David Lambert, Prof.	Institute of Education, University College London
Karl Donert	President of the European Association of Geographers
Michael Solem, Dr.	Educational Affairs Director, Association of American Geographers
Jukka Tulivuori	Counselor of Education, Finnish National Board of Education
Sanna Mäki, Dr.	Department of Geography and Geology, University of Turku; Member of the Finnish Matriculation Examination Board
Markus Jylhä	Coordinator of Finnish Resource Center of Geographical Education, University of Helsinki

In addition, 22 Finnish geography teachers answered a questionnaire anonymously that differed slightly from the one introduced to the experts; the questions introduced to the experts and to the teachers are shown in Table 2. The link for the online questionnaire was advertised in a private Facebook group for Finnish geography, biology, and health education teachers (*BiGeTt-materiaalit*, 17 August 2015), wherein over one thousand members are actively sharing teaching materials. The same link was additionally sent via email to teachers who are members of the Association of Finnish Biology and Geography Teachers (*Biologian ja maantieteen opettajien liitto*, 8 September 2015). However, only 22 teachers responded to the questionnaire. Of these teachers, seven teach geography at secondary school level and nine at upper secondary school level, in addition to six teachers who work at both levels. Nonetheless, the aim was not to collect a complete sample but to get some views on geo-media from a smaller group of Finnish geography teachers.

TABLE 2.

The main questions introduced to the experts and to the teachers.

<i>Questions for the experts</i>	
Defining geo-media	
1.	What definition would you give to geo-media?
2.	If you would describe geo-media in three words, what those words would be?
3.	From which words do you think the word 'geo-media' is shortened?
4.	Are there any alternative names for geo-media?
5.	What are the most important/critical elements needed in order to call something geo-media? In other words, what distinguish geo-media from other media?
6.	What do you think could be the motive to adding geo-media skills in the Finnish geography curriculum?

<p><i>Questions for the experts</i></p> <p>Geo-media in practice</p> <p>7. What geo-media skills do young people need in their everyday life?</p> <p>8. How do geo-media differ from traditional competences of map reading?</p> <p>9. How do geo-media link to visual literacy skills?</p> <p>10. In your opinion, how could this advertisement by Diesel be linked to geo-media and used in a classroom situation when teaching geography?</p> <p>11. In your opinion, how could this photo of 'Reverend Billy' be linked to geo-media and used in a classroom situation when teaching geography?</p> <p>12. In your opinion, how could this Finnish cartoon strip, 'Viivi & Wagner,' be linked to geo-media and used in a classroom situation when teaching geography?</p>
<p><i>Questions for the teachers</i></p> <p>Defining geo-media</p> <p>1. What definition would you give to geo-media?</p> <p>2. Which sources underpin your understanding of geo-media?</p> <p>3. What are your thoughts about adding geo-media to the Finnish geography curriculum and teaching it?</p> <p>4. To whom do you think geo-media should be taught?</p> <p>5. How important is the field of geo-media to geography?</p>
<p>Defining geo-media skills</p> <p>6. What definition would you give to geo-media skills?</p> <p>7. How could geo-media skills be taught in schools?</p> <p>8. How does geo-media link to visual literacy skills?</p>
<p>Geo-media in practice</p> <p>9. In your opinion, how could this advertisement by Diesel be linked to geo-media and used in a classroom situation when teaching geography?</p> <p>10. In your opinion, how could this photo of 'Reverend Billy' be linked to geo-media and used in a classroom situation when teaching geography?</p> <p>11. In your opinion, how could this Finnish cartoon strip, 'Viivi & Wagner,' be linked to geo-media and used in a classroom situation when teaching geography?</p>

The results of the content analysis of the answers by experts and teachers are introduced in the next chapter. The guideline of the thematic content analysis was to follow the horizontal-hierarchical approach; that is, the horizontal dimension refers to the multiple aspects and insights of one and the same issue, and the hierarchical dimension means that some aspects and insights are more common than others (Cantell 2001, 93). The Results chapter is divided into five aspects of geo-media as follows: geo-media and geo-media skills, everyday life, digital sources, geographical information system, and interpretation of photos.

The three media images (see Figures 1, 2, and 4), or the three visions, are introduced in the Discussion chapter. In this article, the images are interpreted using

semiotic concepts, but they could be analyzed and used in other sorts of contexts, as well. This is to say that the three visions are examples of how geo-media can be understood from the point of view of the interpretation of the photos; however, it is not said that these photos should only be analyzed as demonstrated in this article. Both the experts and the teachers were asked how these three media images could be used in a classroom situation when teaching geography (questions number 10–12 for the experts and 9–11 for the teachers on Table 2); the topics they think could be taught using the images are listed in the end of each vision in the Discussion chapter. Any other analysis of the experts' and teachers' answers related to the media images (Figures 1, 2, and 4) was not executed.

Results

Geo-media and geo-media skills

According to the experts, geo-media lacks definition, which leads to the outcome that it acquires multiple meanings. In the Finnish upper secondary school curriculum (Lukion... 2015, 162), geo-media is described—with only twenty Finnish words—as follows: “By geo-media, it is meant the versatile use of maps, geographic information system, diagrams, images, videos, literature, media, oral presentations, and other geographical ways of gathering and presenting geographical information.” This rather broad definition is shared by most of the teachers filling in the online questionnaire, as well. When asked where the teachers have learned about geo-media, a surprising 38 % answer that they have reasoned the meaning on their own from the two words, ‘geo’ and ‘media.’ In addition, they have been exploring the reformed curricula and the webpages of Finnish STEM (Science, Technology, Engineering, and Mathematics) education portal (see, www.luma.fi/en) as well as consulting their colleagues. One teacher points out that there has not been that much information available in the first place.

On the other hand, the experts are guessing that the term ‘geo-media’ is a shortened version from ‘geographical media sources.’ When asked what distinguishes geo-media from other types of media, the experts answer that the ‘geo’ stands for *location*. In international literature, geo-media refer occasionally especially to GPS (global positioning system) trackers and the field of locative media (Favero 2014, 174). Additionally, it is stated that geo-media allow “the visualization of information from different media sources and is concerned with digital content and its processing based on place, position, and *location*” [italics added] (González & Donert 2014). However, only seven per cent of the experts and teachers ask the question of ‘where’ (i.e. location) regarding the media images in Figures 1, 2, and 4.

When compared to the plain concept of geo-media, the teachers tend to describe geo-media *skills* more broadly. According to the teachers, geo-media skills include, for instance, traditional competences of map reading, using digital sources and data-sets, interpreting, understanding and applying geographical knowledge and also

presenting it, reading media texts and images from a geographical point of view, and even orienteering and reading a geographical article are mentioned.

Everyday life

Both the experts and the curricula recognize the ways young people act with geo-media in their everyday life. According to one of the experts, geo-media skills are to operate various devices and to use, for example, Google Maps and Instagram images. That is why geo-media skills are a crucial part of today's citizenship. On the premise that school education should provide relevant skills and competences to participate in the society, the evolution of digital communication (e.g., smartphones, mobile Internet, digital globes, location-based services, big data) in young people's everyday life calls for a stronger integration of geo-media in geography education (Vogler & Hennig 2014, 188). In the upper secondary school curriculum (Lukion... 2015, 162, 167), it is emphasized that the everyday experiences and observations of young people are the starting point for geography education (see also, Hilander & Välimaa 2014; Tani 2012) and that young people need to be aware of the effects geo-media have on them. Thus, young people should be critical towards geo-media, as well; for instance, one expert points out that young people "should also know where their own location could be registered when using Internet services retrieving data of their location."

Digital sources

As mentioned earlier, geo-media can be understood as digital sources, which, in turn, can be about written, numeral, visual, and audiovisual data-sets. In the Finnish context, perceiving geo-media as digital sources seems to be the most recognized definition (Ratvio & Jylhä 2014). It is also the most shared view when it comes to the experts and teachers; 59 % of the teachers think geo-media mean digital sources. However, teachers do not believe that the introduction of the concept of geo-media in the new curricula will change their teaching methods or practices in a classroom situation. For instance, few teachers respond that although the term geo-media is a new one in the curricula, the content it refers to is not when it comes to geography education. Another teacher continues that geo-media do not require any other actions apart from taking more and more advantage of online teaching materials. Nevertheless, few teachers are hoping to get education and training in making use of geo-media; for example, one teacher states that updating teacher training is needed in a case where the aim of geo-media is to teach the same topics as before but with new methods.

Geographical information system

If "geo-media is an attempt to modernise geography," as one of the experts puts it (see also, Hilander 2015), then how do traditional competences of map reading differ from geo-media skills? Some of the experts take maps as an example of geo-media and think that the same skills are needed with both the traditional maps and geo-

media. However, the view that “most of the geo-media sources nowadays are interactive” is also stressed. In addition, geo-media support multimedia content, which makes it more complex compared to traditional maps. In addition, the geo-media use in schools is sometimes seen to derive from the GIS (geographical information system) use (Gryl, Sanchez, Jekel, Jouneau-Sion, Lyon & Höhnle 2014, 31). Indeed, the relationship between geo-media and GIS is rather interesting and vague at the same time. One of the experts thinks that GIS is “just one form of geo-media.” However, too often geographical information is commercialized because the GIS programs used in the research projects are subject to charge. This fact is also underlined by one of the teachers taking part in the online questionnaire as the teacher writes that the term geo-media has mainly been used in a commercial context so far. Furthermore, it is important to be aware of the fact that the media used is not the crucial factor for learning achievement, but the pedagogic approaches employed (González & Donert 2014). Even though the use of technology is playing an increasingly important role in geography education, geographical knowledge and the ability to interpret geographical data-sets are still crucial (Donadelli & Rocca 2014, 45).

Interpretation of photos

One strong argument in favor of including interpretation of photos in geo-media skills is that both, interpretation of photos and geo-media, are means of communication (Cobley 2010; Hilander 2012; Kupiainen 2007); for instance, the experts see geo-media as a way to “communicate geographical information.” One of the teachers argues that in order to use geo-media, basic skills in interpreting maps and images are needed. This, in turn, leads to visual literacy skills, which are extremely important because geo-media sources are rich and diverse, as one of the experts writes. However, there are also contrasting opinions, as one of the teachers emphasizes that the interpretation of photos is not about teaching geo-media skills; for this teacher, geo-media education is about making the students themselves *produce* geo-media, not just interpreting ready-made maps or images.

Yet, in their book *Learning and teaching with geomedial*, Jekel, Sanchez, Gryl, Juneau-Sion & Lyon (2014, viii) define geo-media as “media which carries georeferenced information.” The writers think that geo-media are not only cartographic media, but that this also includes geo-tagged pictures and written descriptions of places. Therefore, geographical references “include text, audio, video and any other type of media that is linked to coordinates that reference a geographical territory by a geo-coded point, line or area” (Fischer 2014, 13). For example, novels are often more or less explicitly spatially referenced, being set in specific places and times, allowing geo-media to support literature studies. The same can be said of the arts, history, and other subjects, which may use the spatial context as an additional frame of reference for learning (Gryl *et al.* 2014, 34; Vogler, Hennig, Jekel & Donert 2012). Although this view extends the concept of geo-media, examples of how to take advantage of advertisements, cartoons, and other visual materials in geography

education are rarely delivered. However, teachers need to provide young people with learning opportunities, where such materials are used and skills to interpret them are developed because these sorts of sources are about young people's everyday life.

As stated in the introduction to this article, three visions of what the 'other' geo-media, or geographical media literacy, could be about are introduced starting with the geographical reading of the photo of 'Reverend Billy.'

Discussion

Vision #1: Photographs and geolocate information

In the field of visual literacy, images are understood first and foremost as a means of communication (Kupiainen 2007, 43). In semiotics, the understanding of communication has generally proceeded from the flow of sender to receiver (Cobley 2010); that is, the sender has a message of intention that the sender tries to pass to the receiver. When it comes to interpreting visual signs, people are somewhat accustomed to interpreting, for instance, landscapes, immediate surroundings, television programs, and advertisements in established manners; that is, with some sort of expectation and intentionality in terms of the object being looked at (Hilander 2012, 75). There are conventions in place that guide people to see regularity in 'visual arrangements' (*visuaalinen järjestyks*), as Professor Janne Seppänen (2008, 29–36) calls them. One example of such a visual arrangement is the city center of Helsinki, Finland, the urban landscape of which differs from that of Manhattan, especially in terms of the lacking skyscrapers; still, Finnish young people include skyscrapers in their drawings depicting Finnish cities because they are expecting a visual arrangement of an urban landscape to possess skyscrapers (see, Béneker, Sanders, Tani & Taylor 2010). That is why visual arrangement is understood as a concept of 'visual appearance' in this article. Visual appearance is about the ways in which an element appear to its viewers, but can essentially be about something else; for instance, compared to the concept of 'landscape,' visual appearance affects its interpretation processes acting more as a subject, whereas landscape plays the role of an object. When loosely combining these two concepts, a semiotic model of communication and visual appearance, it is the sender or the author of a visual re-presentation that intends to make the public see certain types of visual messages in their work.

However, visual literacy is not only about accepting 'ways of seeing' visual appearances but is also about recognizing them and especially questioning them (Kupiainen 2007, 52; Seppänen 2008, 192–193). One way to challenge the customary ways of interpreting visual appearances is the procedure of a 'commutation test.' With the commutation test, it is possible to analyze the significant elements (i.e., paradigmatic units) that constitute the photo (i.e., the syntagm) and its meanings. In practice, the commutation test is executed by substituting *mise en scenes*; that is, substituting one element for another in the image and observing whether this change

modifies the plane of content (Barthes 1977a; Fiske 2005; Pienimäki 2013; Seppä 2012; Seppänen 2008; Sintonen *et al.* 2014).

In Figure 1, commutation test conducted on geographical location is introduced. Before revealing the geolocative information, the main character's visual appearance, such as his clothing and posture, in the left-hand picture reminds one of a religious person. According the model of communication and the concept of visual appearance, the viewer's interpretation process could now be satisfied, because the viewer is interpreting the photo as intended from the sender's point of view; that is, Figure 1 is a picture of a priest. However, when the original text, 'America,' which works as a geographical hint about the location in which the events of the photo take place, is shown right under the character's hand (on the pumpkin in the right-hand picture), his religiousness can be questioned. For instance, one of the teachers filling in the questionnaire suggests that it could be discussed with the students whether the photo is sarcastic by nature—that is, the photo is not presenting events as they are but as they are designed and performed—and whether the students' opinions would change in a case where the photo re-presented some other culture than North American. In addition, not only does the 'America' work as a geographical hint in the photo but also the statue of George M. Cohan, who was a famous figure in the New York City theater scene. With the statue, the accurate location of the photo can be traced to Times Square, Manhattan. With this in mind, the appearance of a priest in the middle of Manhattan appears now as a 'spatial misplacement' (*spatialinen väärin-sijoittuminen*) (Saaristo 2007, 200). Indeed, the character seen in the picture is called 'Reverend Billy' and is played by Bill Talen (2015) who—with his 'Stop Shopping Choir'—is 'preaching' about consumerism and advertising. 'Reverend Billy' has also visited some shopping malls in Helsinki, Finland. If the added value of location alters the ways in which the viewer understands the photo, the commutation has tracked one significant unit in the photo.



FIGURE 1.

Commutation test conducted on geolocative information (Photo: Fred Askew Photography).

In the context of geography education, the commutation test can be taken as a creative approach where the students are geographically playing with the image. This 'geographical play' can be regarded as openness towards the world (Pyyry 2015); that is, instead of accepting the messages of visual appearances as they are intended, the students can test the strength of the sender's arguments by placing the picture in different geographical contexts. In this manner, the communication can be seen to take place between the viewer (i.e., receiver or student) and the image itself. Compared to a plain analytical reading, changing the *material form* of photos, as demonstrated in Figure 1, enhances the visual literacy skills of young people and also reminds them to remain critical towards visual appearances (Kupiainen 2007, 54). At the same time, the commutation test encourages the students to come up with alternative readings for the photo and, for instance, ask questions such as how other people might understand the content of the photo compared to their own interpretations (Kupiainen & Sintonen 2009, 124).

Thanks to geotagging, which is the process of adding locational information to an image (Kerski & Baker 2014, 61), images today contain new invisible layers of information regarding physical location (Favero 2014, 166). Although the commutation test introduced here does not express geolocative information in terms of latitude and longitude, the word 'America' and the statue of George M. Cohan do work as geographical hints, which links the photo to 'a geographical territory' as stated in the introduction of this article (see, e.g., Fischer 2014, 13). In the Finnish upper secondary school curriculum (Lukion... 2014, 165–167), it is stated that students should solve geographical problems and interpret cultural landscapes using geo-media, and understand how human action is organized on the globe. Here, the geographical problem is the question of where the photo has been taken, the answer to the question and the cultural landscape to be interpreted is Manhattan, New York City, which leads to the question of whether it is typical for people in a city such as Manhattan to 'organize' themselves as shown in Figure 1. On the whole, the interpretation of Figure 1 is a mix of meanings attached to the central business district (CBD) of Times Square, the character of 'Reverend Billy', and the critique of consumerism that he connotes (Barthes 1977b; Doane 2007; Hilander 2012; Pienimäki 2013; Seppänen 2014). As a conclusion of this chapter, when guided to observe the geographical hints in images, young people's 'geographical vigilance' (see, Hilander 2012) is fostered (Kupiainen & Sintonen 2009, 62). As a result, they are able to locate the information offered by the global media (Cantell 2011, 6), such as advertisements, which are examined more in depth in the next chapter.

When it comes to the teachers, 23 % did not even answer how they would use Figure 1 in geography teaching. The rest of the teachers consider using the image when teaching topics of cultural geography, such as population, multiculturalism, Americanism, consumerism, sustainable development, multinational corporations, urbanization, fundamentalism, and minorities. In addition, two experts say nothing about this image. The rest of the experts, instead, consider questions such as where the photo was taken and whether it could be taken outside America. They also mention inequalities in different scales and contexts.

Vision #2: Advertisements and geographical banality

The media landscape is increasingly dominated by advertising. Advertisements reinforce the ways in which people are to view visual appearances; it does this by presenting certain elements in certain ways time and again (Andersen & Miller 2010, 157; Hilander 2012, 73). In this manner, the gender roles, for instance, are being fostered (Seppänen 2008, 183). Indeed, people's conceptions of values, morals, cultural myths, gender, power relations, class, nationality, sexuality, and 'us' are quite so often offered by or at least negotiated within the media landscape (Hilander 2014; Wright 2002). This culminates in advertising controlling, to some extent, the ways in which people conceive the world, although this worldview concerns more the 'geographical imagination' (see, Figure 2) than the 'physical world' itself. This imagination is used in order to make the items advertised look appealing in the eyes of consumers; it is not that much about the items themselves, but concerns more the mental images they possess that people use in defining and expressing their own identity. Therefore, building a memorable brand is a very important aspect of marketing strategies of international corporations, such as Diesel (Herkman 2007; Williamson 1978).

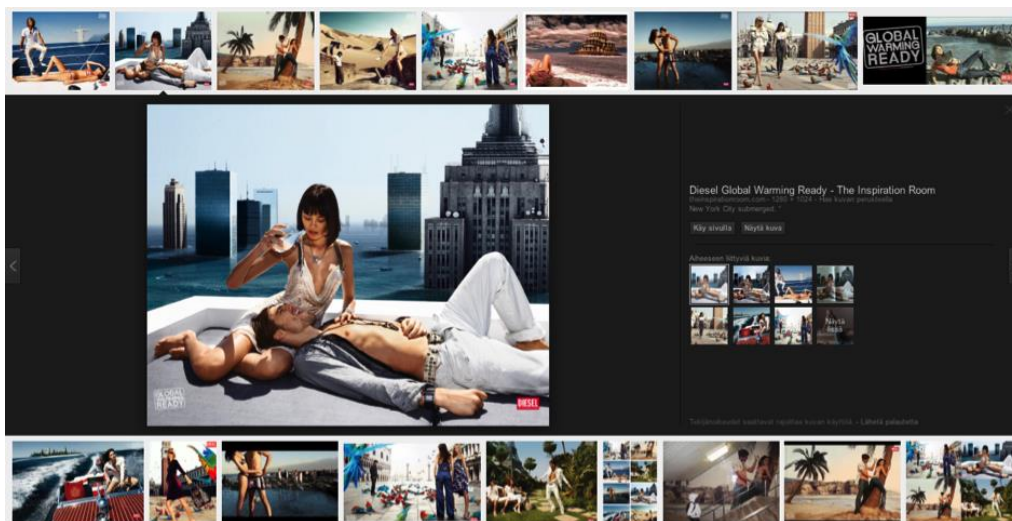


FIGURE 2.

Screenshot of Diesel's advertisements from Google search (24 June 2015).

Diesel is known for its shocking and somewhat aggressive advertisement campaigns (Herkman 2007, 165). As an example of how advertisements may collapse into 'geographical banality,' an advertisement of Diesel's 'Global Warming Ready' campaign from 2007 is examined. As seen in Figure 2, the events of the ad take place in Manhattan, New York City, as did 'Reverend Billy' in Figure 1. Although claiming its advertisement campaigns to be clever and confident, the fact that the company did not give permission to publish the ad in an academic article refers to the delicate nature of the advertisement. Instead, a screenshot of Diesel's advertisements from Google search is presented here. In the advertisement studied here, a sexy woman and

a man are sprawling on a rooftop in Manhattan, while New York City is almost completely engulfed in water (Andersen & Miller 2010, 157).

The method the advertisement (Figure 2) uses in order to build attractive mental images for its products is called 'transfer of meanings' (Williamson 1978, 31–35). Tempting connotations—such as sexiness, a laid-back attitude, physical intimacy, and urban life—that originally belong to the models are being transferred and attached to the products advertised. As a consequence, anyone wearing Diesel's clothing will become as sexy, relaxed, and as urban as the models in the photo. In other words, people 'behaviorize' the meanings of the advertisement in that they will buy the items advertised (Hilander 2013). However, the woman and the man in the advertisement are nothing but gendered, popular-cultured re-presentations of a woman and a man; hence, they do not present authentic women and men of the 'physical world' (Cantell 2011, 5; Hilander 2012, 76; Weselius 2014, 161–163). The world of the advertisement presents itself as brave, ready, and binary; that is, the objects of this world are either sexy or not-sexy, bold or not-bold etc. The physical world, instead, is insecure, unfinished, and complex: for instance, the phenomenon of global warming is anything but black-and-white. Drawing a line between these two worlds, the world of advertisements and the physical world, can be rather problematic, which makes reading and interpreting advertisements sometimes hard for young people (Kemppainen 2014, 34–33).

Both the Finnish comprehensive school curriculum and the Finnish upper secondary school curriculum emphasize the importance of critical analysis of information (Perusopetuksen... 2014, 387; Lukion... 2015, 161). In addition, the question of how advertising and media influence people is of importance (Lukion... 2015, 166). The visual message of the Diesel advertisement can be questioned with the help of the transfer of meanings; that is, how is the text on the lower left-hand corner, 'Global Warming Ready,' to be understood? Are people ready for facing global warming when wearing Diesel's clothing? As one of the experts points out, "consumption is not seen as a cause for the situation but merely a way to survive" in the advertisement. Indeed, the advertisement seems to suggest that people do not need to worry as long as they are wearing Diesel's jeans and looking 'sexy.' Although Diesel's ads claim that the company and its brand of clothing are 'Global Warming Ready,' no mention is made of the environmental impact of producing the clothes (Andersen & Miller 2010, 158). For instance, does Diesel use alternative energy sources in production or distribution to reduce its carbon footprint, pay its workers adequately or use organic fibers?

The advertisement speaks of inevitability and acquiescence to a global crisis reinforcing defeatist and apathetic attitudes to global warming (Andersen & Miller 2010, 158); the visual appearance of the future New York City will be dominated by sea level rise and it cannot be prevented—quite contrary, it is 'sexy.' In the Finnish upper secondary school curriculum, it is stated that students are to interpret physical landscapes and their processes (Lukion... 2015, 163–164). Therefore, the geographical stereotypes in the advertisement should be questioned. According to one expert, questions such as "what changes the city may really be facing in the future" should be

asked. Another interesting question is how Diesel itself might understand the phenomenon of global warming. Some sort of answer to this question can be found from the online materials that supported the print ads when the ad campaign was published in 2007. At that time, Diesel's website visitors were given the following hints: save the planet by having sex quietly to cut down on heating, walk to the shops, turn off the lights, insulate homes with recycled denim, never take a shower, hang up towels, plant trees, and eat steak in a restaurant to make it possible to get rid of the fridge at home (Inspiration room 2007). These views seem to be quite far away from those of Professor Sixten Korkman (2015) who writes that the biggest problem Finland is facing at the moment is not financial but concerns global warming.

At times, visual appearance can either be taken for granted or situated in such a central place, that the viewers do not pay any attention to it; thus, the visual appearance becomes comparatively invisible (Seppänen 2008, 31). During the course of 'Visual methodologies' at the Department of Teacher Education, University of Helsinki (2014) the students did not notice the sea level rise in Figure 2, although it is quite central element constituting the theme for the advertisement (i.e. global warming). Instead, the students thought that the sea with its consistent texture and color does not stand out from the models at the forefront of the ad. In addition, the ways in which the advertisement tries to pursue sexiness and faithfulness to its genre are so obvious that the viewer might not even reflect on *what* is actually being advertised in the image: trousers, shirts, belts, dresses or men's watches.

According to the experts, the Diesel advertisement can trigger geographical questions such as where the photo has been taken, what has happened to the buildings, and why the sea level is so high. One of the experts describes the ethical aspect, or the 'geographical banality,' of the advertisement by writing that "the ad makes surviving easier with cool Diesel clothes worn by beautiful survivors who seem rich." Yet, one of the experts thinks "there are more important and significant things to do than to bother with this when teaching geography."

The teachers share the same geographical question with the experts; that is, they wonder where the photo has been taken and whether the city can be recognized from the advertisement. In addition, the teachers assess what the image tells about the landscape it depicts; for instance, how the landscape has changed and what was the source of such changes. The teachers connect the advertisement to the phenomenon of global warming and its effects on the globe; for example, they are interested in what sorts of effects global warming will have on the environment in the near future. They are also reading the image critically and questioning whether the image is authentic or not. At the same time, they are curious if the image could be used to change people's behavior. Individual themes that the teachers mention are as follows: water cycle, shortage of drinking water, urbanization, traffic, the dichotomy of developing and industrial countries, inequality, sexual equality, popular culture, beauty ideals, and consumerism.

Markus Hilander

Vision #3: Cartoons and geographical events

Within the media landscape, even blank spaces are sometimes published. As seen in Figure 3, *Interview* magazine protested the image censorship of the Gulf War by publishing a magazine spread without any photos in April 1991 (Salo 2000, 59). In addition, a French newspaper *Libération* emphasized the power of photos and photographers by withdrawing images from one of its issues in November 2013 (Lauren 2013). Both of the magazines succeed in demonstrating that the visual catalogues of global media not only engage in mirroring the physical world, but also in constructing it actively (Hilander 2016; Lambert & Morgan 2010). For instance, if young people were asked to fill in the empty boxes of the *Interview* magazine in Figure 3 by drawing or searching ready-made images from other magazines, the result would most likely show how differently they visualize and illustrate the captions (Hilander 2012, 80; Hilander & Välimaa 2014, 47). However, also magazines and newspapers share their own sort of visual appearance that, on the one hand, is ruled by social and institutional conventions—such as how many frames there can be in one cartoon—and, on the other, dictates what is and is not published in their pages (Seppänen 2008, 36). Likewise geo-media, magazines, newspapers, and also cartoons are multimedia re-presentations combining both written and visual texts (i.e., images). Hence, the significant units, as examined in the ‘Reverend Billy’ photo (Figure 1), are of importance in cartoons, as well, because the readers need to have the cultural knowledge and experience to create a complete story based on the few units of text and image presented in a cartoon (Kontturi 2014, 82; Mikkonen 2005, 296; Nygård 2010, 58).

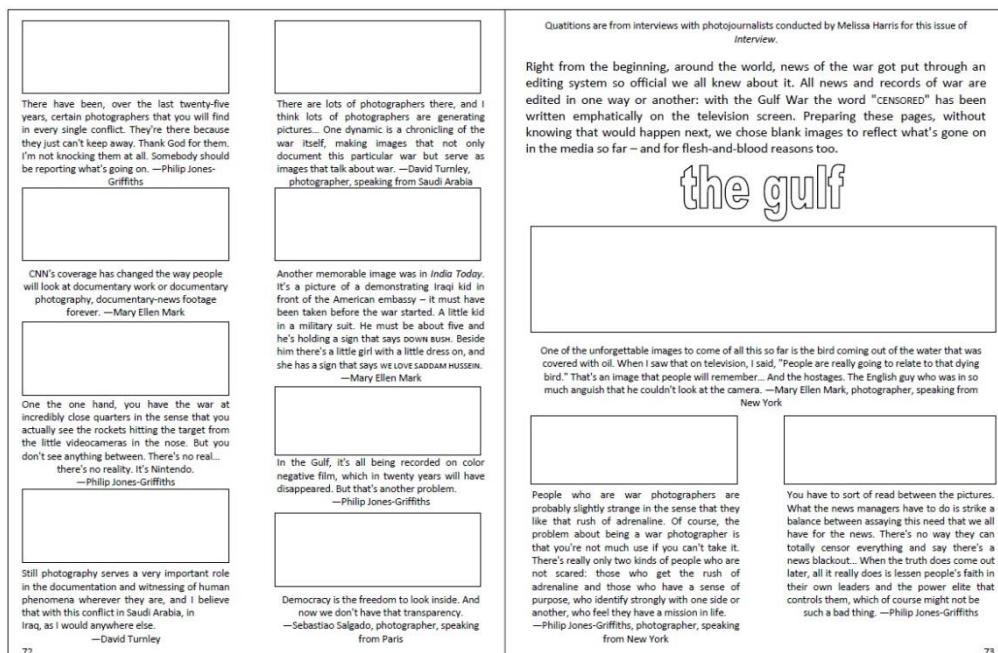


FIGURE 3.

An example of a magazine spread without any images (adapted and modified from Salo 2000, 59).

Cartoons have a number of strengths one of which is their ability to address topical public issues, events, and social trends and seek to make comment on such matters. Cartoons can develop students' ability to think beyond a single response on an issue and to consider alternatives; that is, cartoons and the drawing task presented above can encourage students to use their geographical imagination (Kleeman 2006). Cartoons and the drawing task are examples of how students can *enjoy* and *produce* different types of texts, both written and visual, as it is stated in the Finnish comprehensive school curriculum (Perusopetuksen... 2014, 100). In addition, they should use 'other' geo-media in learning geography formally and informally (Perusopetuksen... 2014, 388). Therefore, students can use cartoons to gather, interpret, and evaluate information in order to formulate an opinion on a geographical issue. In addition, the visually literate student asks what sorts of values are shown and not shown in cartoons as it is demonstrated in the next paragraph (Kontturi 2014; Kupiainen & Sintonen 2009; Lofthouse 2011; Mikkonen 2005).

The 'Viivi & Wagner' cartoon in Figure 4 was published in 2008; the Finnish texts of the cartoon are translated into English, frame by frame under the Figure 4. At that time, a well-known Finnish chocolate factory *Fazer* decided to remove a character called 'licorice Peter' (*Laku-Pekka*) from the wrapping paper of its licorice product. According to the company, the aim was to update their basic values. At the time, Barack Obama was running for president and was subsequently elected as the first black president of the United States of America. Moreover, in the cartoon, 'licorice Peter' is planning to move to China, which became the biggest creditor of the USA during the recession. Thus, the students' understanding of contemporary geographical issues, such as the questions of skin color and why 'licorice Peter' is not used in advertising anymore and his move to China in the era of financial depression, can be enhanced with just one cartoon (Kleeman 2006).

However, cartoons need to be furnished with a 'pedagogical journey.' That is, the cartoon might be shown for the students in the beginning of a geography lesson to engage them in learning geography. During the lesson, the teacher and the students will discuss, for instance, the questions mentioned above or the China phenomenon, which signifies the movement of industrial production to China. In the end of the lesson, the cartoon will be shown again to the students who will now mirror it against the geographical knowledge they have gained during the lesson. This way students not only read cartoons informally (like in the beginning of the lesson) but also formally concentrating on the geographical issues addressed in the cartoons. This geographical context is not only about the location but also about time. As Lefebvre (1991) states, space as a context is something people do and, therefore, it cannot be stable. For instance, the ways in which the Diesel advertisement (Figure 2) depicts global warming are now outdated, whereas the 'Viivi & Wagner' cartoon (Figure 4) is current and up to date. Indeed, it is the mundane and obvious ones that are the most important images at times (Seppänen 2008, 193).



FIGURE 4.

The Finnish 'Viivi & Wagner' cartoon by Jussi 'Juba' Tuomola.

Työvoimatoimisto

Moi, Pekka!

Ai hei, Wagner!

Kuulin, että sait kenkää.

Se on tämä aika.

Mitäs aiot?

Muutan Kiinaan.

At an employment agency:

Hello, Peter!

Oh hi, Wagner!

I heard you got fired.

That is how it is these days.

What are you going to do?

I am going to move to China.

The themes that the teachers mention related to the cartoon are as follows: the China phenomenon, migration, immigration, globalization, cosmopolitanism, regional policy, unemployment, recession, stereotypes, prejudice, and racism. The experts mention ethnic minorities, immigration, and political values. One of them is also wondering why 'licorice Peter' is moving to China. One expert writes that "*this is geo-media* containing information about changes in politics and the labour force, both internationally and locally" [*italics added*] emphasizing that cartoons can also be included in the concept of geo-media. However, two experts did not comment on the cartoon; one of which would not use the image in geography education.

Concluding remarks: Geographical media literacy skills

The reason for using the word 'reading' in the title of this article is that this article aims at learning to orient oneself towards the geographical content of ready-made visual materials; that is, extracting information already presented—such as the geographical hints regarding location—but which is not that often used in the interpretation of photos in geography education (Rose 2012, 330). Therefore, the technique here is to *read* images and their geolocate information before starting to produce geo-media (see, e.g., Jekel 2014, 177). The premise of this paper is that young people need to be capable of observing, interpreting, and evaluating the geographical content of different types of visual appearances in order to be able to find, combine, and produce geo-media of their own. That is why it is crucial to ask

whether geography education aims at learning *with* geo-media or *producing* geo-media.

When it comes to the online questionnaire data collected for the purpose of this article, it seems that there are two ways of understanding geo-media. The first way of perceiving geo-media is (1) to consider it as almost 'everything'; for instance, it is about using maps, photos, videos, and digital globes in geography education. But it is also about watching the news, reading a geographical article, and orienteering. According to this view, radical changes in geography education will not take place; therefore, one might ask: what purpose does the concept of geo-media then serve and for what purpose is the broad concept of geo-media needed?

The second way of perceiving geo-media is (2) to narrow it down to what is known as 'geomatics'; that is, photographs, aerial photographs, satellite images, and especially maps and the applications of GPS and GIS (Thornes 2004, 787). However, in this manner of perceiving geo-media, the processes of interpreting photos is not fully appreciated as part of geo-media; for instance, one of the experts writes that "the three examples [of this article] ... do not reflect a full or useful examples of geo-media—they only make rather indirect connections to *location*" [italics added]. However, as mentioned earlier, location is seen as an important aspect of geo-media. The second way of perceiving geo-media highlights the processes of producing geo-media; for instance, the experts think that geo-media "refers to the skills to read, interpret, use, process, analyse and *produce* geo-media" [italics added]. However, skills for producing visual messages using the computer and other technology are included in visual literacy skills, as well (Brown 2004; Christopherson 1997, 173). Furthermore, the introduction of geo-media can be seen as part of the Finnish government aim to digitalize Finnish schools (Opetus- ja kulttuuriministeriö 2015).

But as in the first way of perceiving geo-media, one could ask: what new aspect does the concept of geo-media bring to the discussion, if geo-media refers mainly to GIS and smartphone applications? The term geographic information system has already been invented for that purpose. Quite the contrary, if geo-media are parallel in nature to GIS—that is, making maps with computers—the argumentation that geo-media should be taught in schools, because young people use it in their everyday life, falls apart. This is because young people use and interpret ready-made geo-media, such as Google Maps, journey planners, and other visually orientated applications such as Instagram, SnapChat, and Periscope, instead of producing maps of their own with GIS applications. Therefore, it should be studied how many young people draw maps with computers in their free time. Indeed, if digital sources are only an alternative for using paper and pencil (Jordman, Kiili, Lonka, Schneitz & Vauras 2015), how does drawing maps with computers enhance students' geographical thinking skills compared to the old style of learning? In the Finnish computerized matriculation examination in geography, for instance, students will not be asked to produce complete maps with computers (i.e., using a cartography program called *LibreOffice*) because that would be too time-consuming and unfair considering the students have six hours to finish five tasks (Abitreenit 2015).

In this article, geo-media skills are understood as *geographical media literacy skills* emphasizing that students need higher geographical and visual literacy competences (Kerski & Baker 2014, 62). The examples introduced in this paper demonstrate that new types of literacy are needed when schools are opened to global media and popular culture (Perusopetuksen... 2014). In the examples, the geographical hints of location serve as the starting point for reading the geographical content of media images (i.e., 'geographical vigilance', see Hilander 2012, 82–83). However, all the visual examples are about the geographical imagination; that is, the visual appearances of the images fail to re-present the physical world as it is. When using texts that have been published outside the school in geography education, students' visual literacy competences and their geographical vigilance is fostered. It can also help them to see different ways of learning and to use geo-media in their everyday life outside the classroom. Indeed, geo-media are helpful for young people to re-invent their world (Jekel *et al.* 2014). However, if geo-media are understood to be solely about producing maps with GIS, this article has defined what geo-media is *not* about.

All in all, the findings of this paper cannot be generalized to cover the whole situation in Finland because so few teachers (n=22) filled in the questionnaire. For instance, taking into account the Facebook group for Finnish geography, biology, and health education teachers, where the online questionnaire of this research was advertised, it seems that Finnish teachers *do* already use a lot of digital sources in their teaching. This might explain why the teachers answering the online questionnaire do not think that geo-media will make such a huge difference in their geography teaching. However, a few teachers commented that the online questionnaire made them think about geo-media in a broader perspective. For instance, geo-media can give a positive push to fieldwork in geography. Stark (2014, 154) proposes that students can place points of interest on a map and compare these points to an analysis of GPS tracks collected, and discuss the difference between the students' perception and the data-set collected by the GPS. However, it is worth noticing that even geo-media alone cannot modernize the image of geography in the eyes of young people and that geo-media alone cannot change the learning processes (Gryl *et al.* 2014, 30). Even in the era of geo-media, geography teachers that are enthusiastic about their subject and explore the large field of geography from different perspectives are the most valuable assets for school geography (see, Hilander 2015).

Notes

1. All translations from Finnish are made by the author.
2. In this article, 're-presentation' is written with a hyphen emphasizing that it is not an objective presentation of the world but a reproduction.

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