



Critical literacy and digital stock images

The interests of the uninteresting images

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Abstract

Stock photos from commercial image banks are extensively used in a variety of texts, such as news reports, organizational websites, sponsored social media posts, and information brochures. This article aims at showing how and why commercial digital image banks can be apt resources for critical literacy work, demonstrated through a quantitative and qualitative analysis of 150 stock images of teenagers from Scandinavia's most influential commercial image bank, Colourbox. The analysis maps social interests and ideals that Colourbox are inscribed with, including representations of gender and ethnicity. Based on the findings, the article argues that critical literacy work with stock photos can bring increased critical awareness of visual images, of visual representation of social actors, and of digital technologies as sociocultural phenomena. The study is theoretically informed by social semiotic perspectives on multimodality and digital technology in combination with critical literacy studies, including critical discourse analysis.

Keywords

Image banks, stock photos, critical literacy, digital technology, multimodality, gender, ethnicity

Introduction

Commercial stock images are omnipresent in texts that form the backdrop of everyday life, such as news reports, organizational websites, sponsored social media posts, and information brochures. Image banks like Shutterstock and Getty Images make a broad array of visual representations easily available, and render it easy for users across the globe to produce digital multimodal texts with visual illustrations of high technical quality, at a low cost. Image bank users, whether businesses, public institutions, schools, or private citizens, are, however, limited to making their visual representations within the ranges of possibilities that the image bank offers. We can choose, but only amongst the choices which have been made available for us.

Stock photos have for long been associated with stereotypical representations, for instance regarding gender roles, as seen in for example the viral ridicule of “women laughing alone with salad” imagery (knowyourmeme.com, undated). Despite criticism, the commercial stock photo industry has continued to flourish, steadily producing visuals clichés. Clichés are often accompanied by problematic sociopolitical implications, for instance regarding gender and ethnicity. Thus, image banks are sites where cultural clichés and disputable ideologies manifest quite clearly. Image banks are easy to navigate and search, also for non-paying customers. When entering a search word, for example, “teenager”, users are presented

with an extensive collection of images. The search results do not show teenage life *per se*, but, rather, the image bank's interpretation of their customers' interests in how teenage life should be illustrated. Commercial image banks are not neutral repositories of pictures, but are intentionally created and curated for serving the needs and interests of their customers. Thus, image banks are timely and easily available objects for critical investigation, also for students in upper secondary school.

This article argues that image banks are apt educational artefacts for raising critical awareness of digital imagery, texts, and technologies among young students, for example lower secondary school. Image banks have not previously been studied as part of critical literacy studies or digital literacy, neither internationally nor in a Nordic context (see next section). The case chosen for investigation in this study concerns representations of teenagers in Scandinavia's most influential image bank, Denmark-based Colourbox. The article investigates and maps what visual representations of teenagers Colourbox promotes by analyzing 150 stock images, and, secondly, discussing how semiotic work with image banks can contribute to increased critical digital literacy. The study is theoretically informed by social semiotic perspectives on multimodality and technology in combination with critical literacy perspectives. Overall, the study aims at providing increased knowledge and critical awareness i) of digital stock imagery, and ii) of commercial image banks' potential for critical digital literacy work in lower secondary school.

Critical literacy, multimodality and digital technology

Critical literacy studies are concerned with how students can become critically aware and socially conscious readers and producers of texts. Researchers aim at making students "agents of text rather than victims of text" (Pandya & Ávila, 2014, p. xii) and at enabling them to not only read *with* texts, but also *against* texts (Janks, 2010). Thus, critical literacy work aims at empowering students to see texts as socially constructed representations, and how texts can be imbued with interests, power relations, and ideologies which can promote socially disputable versions of the world (cf. Freebody & Luke 2003; Vasquez, Janks & Combs 2019; Veum & Skovholt 2020). In line with New Literacy studies (New London Group, 1996, Cope & Kalantzis 2009), critical literacy research has increasingly taken an interest in *multimodal* communication (cf. Kress 2010) as well as *digital* communication (cf. Hinrichsen and Coombs, 2014).

Critical literacy research often emphasizes literacy work with *texts* (e.g. Vasquez et al., 2019), including multimodal texts, often in the tradition of Critical Discourse Analysis (Fairclough, 2003). This is also evident from how critical literacy studies in the Nordic context have engaged with critical literacy through multimodal text *analysis* (Veum & Eilertsen, 2019) as well as multimodal text *production*, including digital texts (Molin & Godhe, 2020). In these as well as other studies, scholarly attention has mainly been directed towards semiotic artefacts with the cultural status of *text*, for example, websites, brochures, and pamphlets. However, in digital contexts, many semiotic resources are not made by the text producer herself, but built into software, for instance as PowerPoint resources (Djonov & van Leeuwen, 2013), blog templates (Kvåle, 2018), or web-site design elements (Kvåle & Poulsen, 2019). Importantly, visual illustrations are often stock imagery from image banks.

Multimodality studies has recently seen a shift from the study of multimodal *texts* to the study of digital technologies used to design the texts, often referred to as *semiotic technology* studies (cf. Djonov & van Leeuwen, 2017; Poulsen, Kvåle and van Leeuwen, 2018). This means turning the analytical attention from the texts appearing on some semiotic surface (i.e., screen)

towards the digital technologies for meaning-making “below” the surface. Software programs are thereby treated not as “digital tools” but approached as deliberately designed semiotic artefacts inscribed with social ideas, ideologies, and interests. Software is seen to come with a “semiotic regime” which regulates the production and interpretation or use of semiotic artefacts (Djonov & van Leeuwen 2017), and, as such, lends itself to analysis and critique.

To educate students to become active and critically aware members of society where digital technologies and visual stock imagery are omnipresent, it is today necessary to also see beyond the texts and include critical work with digital technologies. The combination of critically literacy, multimodality, and semiotic technology perspectives offers a viable theoretical-analytical approach for doing so.

Image banks and stock photography

Commercial image banks market and sell stock imagery to small and big companies, news media, educational institutions, entrepreneurs, and individuals around the world. They offer huge assemblies of digitalized visuals – photographs as well as other – which can be purchased and used in accordance with their licenses. Stock photo scholar Paul Frosh has described these images as “the kind of images we notice only peripherally” in our everyday lives (Frosh, 2013, loc 3482) and as the “wallpaper of consumer culture” (ibid.). Yet, as he shows, stock photography has so far received sparse scholarly attention (Frosh 2001; 2013).

In a study of Getty Images, David Machin (2004) identified and investigated three qualities of stock photo images: their *genericity* (decontextualized background, generic setting, clichéd props, generic-looking models), *timelessness* (abstract symbolical truths not empirical records), and *low modality* (little emphasis on naturalistic representation). He argues that the visual language of the world has become more homogenized, generic, and limited in its iconography. Frosh (2013) also underscores the generic nature of stock photos in terms of referential ambivalence (staged scenes) as well as interpretive ambivalence (intended for diverse use). Furthermore, he notices how stock photography is driven by the interests of consumer advertisers, and consequently geared towards American and European middle-class activities and demography. Even though image banks like Getty have tried to expand their clichéd imagery, for instance related to gender, his criticism still seems to hold (cf. Aiello and Woodhouse 2016).

The most extensive study of image banks, as far as I know, is a study of how teens and technology is visualized in news imagery and stock photography (Thurlow, Aiello & Portmann, 2019). Their study’s empirical stock photo dataset included 200 images from each of the three major image banks Getty Images, Shutterstock and Alamy, analyzed through a carefully developed set of 20 codes. Their findings echo Machin’s in terms of the visual ideologies created and promoted by commercial image banks. It is noteworthy that they found that women were “oddly and inconsistently over-represented” (p. 545). Equally noteworthy is their observation regarding representation of people of colour: “The social world produced in our dataset was predominantly, perhaps almost exclusively, White: 71 % of the images showed White people only, while 12 % of the images in our corpus showed people of colour only. This is clearly a disproportionate but also inexplicable distribution” (p. 541).

As far as I have seen, the specific image bank investigated here, Colourbox, has not yet been object of previous research. The Colourbox company was founded in 2005 and present themselves as “a Danish company infused with a diverse, international spirit” (Colourbox, undated A). Their image collection includes approximately 26 million images, and amongst their customers are major corporations in Scandinavia, for example, Maersk, Nordea and

Arla. They also offer an “Educational License” for schools and educational institutions, and are used by, for example, University of Copenhagen and Aarhus University in Denmark (Colourbox, undated B).

The stock photo market is, according to Frosh (2013), characterized by a few giant super-agencies, with Getty Images in front, and a myriad of niche agencies specializing in specific imagery, for example, golf, fashion, medical photos, although with some medium-size agencies. According to business database Datanyze (undated), Colourbox ranks number 22 internationally amongst stock photography providers, with a market share of 0.02 %. As it is neither a global superpower nor a niche agency, it represents an interesting case. Its regional position of prominence in the Nordic context renders it a particularly interesting object of scrutiny for critical literacy studies in Scandinavia. It also provides new perspectives compared to previous studies of image banks, which mainly have engaged with big global companies, in particular Getty.

Methods

To investigate what kind of visual representations of teenagers Colourbox suggests and promotes, a dataset of image bank photos was assembled. The image bank dataset consists of the 150 first pictures from an image search on *teenager** in Colourbox, performed in August 2021. This deliberately broad and generic term was chosen for finding out how this semantic field, which is of high relevance for school students, is produced by the image bank. Other words could have been chosen, which might have yielded other results. I found “teenager” to be useful for not limiting the scope to specific settings, for example, school (“pupil”, “student”), for not expanding the age group too high nor too low (e.g. “pupil” “student”, “kids” “youth”), and to avoid using a too advanced word (e.g. “adolescent”). Private mode was used, but the search results may nevertheless be biased, for example, IP-linked location. No changes were made in the settings in the search, so the data collection process followed what the technology had set as preferred search route. The search results were screenshot and saved, and the images were numbered in their order of appearance.

The images were then coded with the aid of a coding sheet partly based on the carefully developed and extensive coding sheet developed by Thurlow et al. (2019). As their study is far more extensive than this, and with a different aim, only some of their codes were deployed. The codes used here were *image type* (photo, other), *shot* (not determinable, long, medium, close, super close), *number of people* (0, 1, 2, 3-5, 6+), *gender* (not determinable, only females, only males, more females, more males, balanced), *ethnicity* (not determinable, only white, only non-white, more white, more non-white, balanced), and *facial expression* (not determinable, positive, neutral, negative). These codes were selected as they seemed highly relevant for the interests of this paper, and also possible to carry out for school students. It should be noted that other codes could have been chosen.

In addition to reducing number of codes, two variables were changed. Firstly, Thurlow et al.’s variables for *image types* (photo, illustration, collage, other) were reduced to “photo” and “other”. This was done as the corpus mainly consists of photos. As only 10 out of 150 images turned out to *not* be photographs, I do not comment further upon this variable in the analysis section.

Secondly, and more challenging, variables for *ethnicity* were developed into more fine-grained categories. The variables used by Thurlow et al. were “not determinable”, “white”, “other”, and “mixed”, specified as “several people of different ethnic group”. The decision to change this code was taken after coding approximately 40 images, observing that important

information was missing out. The new set of code variables are organized binary around “white” and “non-white”, and thereby follows the same logic as the codes for gender. This adds nuances and precision to the relative distribution of white and non-white models in the corpus. It should however be noted that coding ethnicity raises analytical and ethical challenges as visually observable ethnicity differences do not come with clear boundaries, while the codes necessarily impose discrete distinctions. When uncertainty occurred, instances were coded as non-white. This means that the overall findings represent a rather generous interpretation of the relative representation of non-white models. Furthermore, the ethnicity coding variables lend themselves for criticism for setting up a disputable dichotomy between white and non-white persons, and for imposing ethnicity categories upon people. The choice of using a negative category also lends itself to objection. As white teenager models are highly dominant in the empirical material, I do nevertheless find this distinction relevant and ethically sound in the context of this specific study, although not necessarily for other studies.

The quantitative overview of the images was supported by “netnographic” fieldwork (Kozinets, 2010) on the Colourbox platform, that is, with iterative reading and browsing of the images in the corpus, and beyond. Thus, the quantitative overviews are complemented and extended with reports from qualitative close-readings of the images, informed by well-established perspectives and analytical tools from social semiotic multimodality studies, mainly Kress and van Leeuwen (2020). Such perspectives are also drawn on for analytical descriptions of connections between various dimensions of the images covered by the five codes.

The world of teenagers according to Colourbox: Stock photo analysis

This section is structured along five codes: *Shot*, *number of people*, *gender*, *ethnicity*, and *facial expression*. For each dimension, a quantitative overview is first presented, followed by analytical descriptions of observations of the Colourbox imagery.

Shot

Table 1 shows a quantitative overview of the analysis of *shot*. Most of the photographs are medium shots (100 images, 67 %) which typically show the represented participant(s) in picture center, from waist and up. Some images are close shots (27 images), thereby offering a more detailed visualization of teen faces and expressions. There are also some medium to long and long shots (16 pictures), which locates represented participant(s) in an environment, typically a generic outdoor (yard, park) or indoor setting (classroom, school, living room, kitchen). There were no super close shots.

Table 1 Quantitative overview of shot (N=150). Due to reduced decimal numbers, the sum becomes 101 %.

Shot variables	Number of images	Relative distribution
not determinable	7	5 %
long	16	11 %
medium	100	67 %
close	27	18 %
super close	0	0 %
Total	150	100 %

In social semiotic, shot is connected to social proximity and distance (cf. Kress & van Leeuwen, 2020). In close and super close shots, the represented participant(s) is presented as someone the viewer has an intimate/private relation with, in medium shots as a social relation, and in long shots as a more impersonal relation. As medium shots dominate in Colourbox, users are invited to use photos that viewers will engage with neither intimately nor distantly, but rather more unmarked.

The photographs generally share the characteristics described by previous researchers, including Thurlow et al's (2019) finding that medium shot is the most common in Getty Images. Furthermore, Machin's claim that stock photos are generic, timeless and with low visual modality (Machin, 2004) also fits with observations of Colourbox photography. More specifically, Colourbox images often have *decontextualized background* (unmodulated white background), or backgrounds that could be anywhere and nowhere (a brick wall, a green lawn, a park), and are often hyper-real in terms of *bright lighting* (cf. Kress & van Leeuwen, 2020). Many photos show teenager models with *generic "teenagerish" attributes and actions*, both positive (teens smiling at their phones, happy teens posing with books and laptops) and negative (teens doing homework with a tired face, teens arguing with parents). Machin (2004) also points to how stock photo models are *attractive*, but not in remarkable ways – also this claim matches well with observations of Colourbox teenager photographs.

Number of people

The code variables developed by Thurlow et al. (2019) was used for coding number of people, and the results are shown in table 2.

Table 2 Quantitative overview of number of people (N=150). Due to reduced decimal numbers, the sum becomes 101 %.

Number of people	Number of images	Relative distribution
0	1	1 %
1	67	45 %
2	16	11 %
3-5	36	24 %
6+	30	20 %
Total	150	100 %

The most common choice is images showing single models (67 images, 45 %). 52 images (35 %) show small groups, either pairs (16 images; 11 %) or small groups of 3-5 persons (36 images; 24 %). Groups with 6 or more people was found in 30 images (20 %).

Both boys and girls are represented in the 67 single person pictures – girls in 31, boys in 28. Single person images often depict a happy, healthy, wholesome teenager, for instance a bright photo of a teenager in colorful clothes with a spotless face who smiles at the camera, holding a laptop or some books to indicate that they are good students. Single person shots are also used to show negative teenager clichés, that is, dark photos, with low color saturation, for example of a teenager wearing a hoodie, sitting alone against a brick wall, with a sad facial expression and a body posture that signals psychological distress.

In group photos, models are often positioned close together, thereby signaling social closeness and friendship. Most group photos show overtly super-happy friends, for instance smiling teenagers collectively jumping against a blue-sky background, or giving a thumbs-

up signal and smiling to the camera. Some also include teenagers on the ground in starfish formation, smiling, close together.

One can also notice absences of representational possibilities. There were no photos of overweight teenagers, nor of teenagers with “normal” teenage skin, nor of teenagers with visually identifiable disabilities. This goes for individual models as well as group photos.

Gender

The representation and distribution of gender was coded with the aid of the coding sheet from Thurlow et al. (2019). Table 3 shows the quantitative overview.

Table 3 Quantitative overview of gender (N=150). Due to reduced decimal numbers, the sum becomes 99 %.

Gender variables	Number of images	Relative distribution
not determinable	21	14 %
only females	50	33 %
only males	36	24 %
more females	18	12 %
more males	5	3 %
balanced	20	13 %
Total	150	100 %

50 of the images (33 %) showed only females, in contrast to 36 pictures (24 %) of only males. In images of gender-mixed groups, 20 were balanced, 18 showed more females, while only 5 images showed more males. Thus, there is indisputably an over-representation of females in Colourbox, similar to what Thurlow et al. (2019) found in their study of Getty, Shutterstock and Alamy.

The variables enforce a binary understanding of gender, that is, that teenagers appear in the table as either a girl or a boy. This generally matches well with the version of the world of Colourbox identified here. There is, however, one image in which the model’s gender was less binary. It shows a skinny model dressed in a black singlet, whose hair is shaved to a couple of millimeters, with a big piercing in their ear. They hold their hand up in a “flex” pose, and look down on their arm with an unhappy face. The caption reads: “Funny skinny teen shows biceps.” The overall tendency is, however, that Colourbox offers illustrations that promote stereotypical boyish and girlish representations.

Almost all female models have long hair, while all male models have short hair. Models of both genders are usually dressed conventionally and conservatively, usually in single-coloured clothes, sometimes striped or plaid patterns. Models are also styled to look “natural” in terms of hair and make-up. There is one photo of a model styled differently – a girl with dark, intense red hair, holding a cigarette to her mouth, with the image caption: “Smoking beautiful young girl.” “Unnaturally” coloured hair thereby becomes connected to socially suspicious behaviour (smoking). Taken together, however, the imagery suggests traditional, conventional, and rather conservative representations of gender.

The close readings also show that boys and girls are represented in many of the same activities, for instance classroom situations, happy-friends postures, schoolwork at home in solitude, and in the single-person sad, alone and vulnerable teenager photos. However, only girls are shown in photos depicting negative social behaviour in terms of bullying or social

exclusion. On the other side, only boys are used as models in drug scenes (snorting white powder). There are, however, not many of these images.

Ethnicity

Images were coded for ethnicity based on a development of Thurlow et al's (2019) coding sheet. See the methods section for a critical discussion of these variables.

Table 4 Quantitative overview of ethnicity (N=150). Due to reduced decimal numbers, the sum becomes 99 %.

Ethnicity variables	Number of images	Relative distribution
not determinable	23	15 %
only white	104	69 %
only non-white	0	0 %
more white	21	14 %
more non-white	0	0 %
balanced	2	1 %
Total	150	100 %

The quantitative overview in table 4 shows that 104 images (69 %) include only white persons. In pictures of people where not all models are white, 21 images (14 %) are dominated by white people, while 2 are balanced. There are no images of only non-white persons, and no multi-person images where there are more non-white than white. Thus, Colourbox indisputably makes it easier to represent white teenagers than non-whites.

These findings match with findings in previous studies of big, global image banks (Thurlow et al., 2019). Colourbox does however show a stronger preference for white persons than the image banks studied there. In several of the 21 images showing more whites, there is only one person who is not white. In many instances it was difficult to decide whether to code the image as “only white” or “more whites”. As mentioned in the methods section, “more whites” was used when doubt occurred. This implies that the bias against people of colour in Colourbox might be even stronger than the quantitative analysis suggests.

As non-white models only appear in pairs (2), small groups (9) and larger groups (12), they are usually shown from a medium to long distance. There is only one photo of a person of colour taken at close distance, which is the shot type which provides individualization. This photo depicts a woman of colour who reaches out to a white girl shot from behind whose hand movements and body posture imply distress, perhaps crying. The image caption provided by Colourbox is “Teenage Girl Visits Doctor’s Office Suffering with Depression.” Thus, the only person of colour who is depicted in close shot and thereby as an individual, is actually not a teenager.

When analyzing ethnicity, challenges are legion (cf. the methods section). In addition to phenotypes, some further representational absences connected to ethnicity can also be noted: There are no photos of teen models wearing cultural or religious artefacts (e.g., cross, hijab, turban), or who are placed in specific cultural or religious settings (church, mosque, synagogue).

Facial expressions

Facial expressions were coded with the aid of the coding sheet from Thurlow et al. (2019). Table 5 offers a quantitative overview.

Table 5 Quantitative overview of facial expressions (N=150).

Facial expression variables	Number of images	Relative distribution
not determinable	31	21 %
positive	47	31 %
neutral	53	35 %
negative	19	13 %
Total	150	100 %

Facial expressions were not determinable in 31 images (21 %). They were positive in 47 (31 %), neutral in 53 (35 %), and negative in 19 (13 %). Colourbox thus makes it possible to illustrate feelings of both ends of the positive-negative scale, as well as neutral.

A closer reading shows that negative feelings are not only expressed by facial expressions. In many of the single-person images of sad-looking teenagers, facial expression appears as not determinable as their faces are covered in hoods, hands, or turned away from camera. Rather, negative feelings are expressed by body postures, typically with the model sitting on the ground, with their head bent.

In many of the group photos of happy teenagers, positive feelings are overtly expressed by facial expressions, typically with big, open-mouth smiles. Their positive facial expressions are often also supported by body postures, for example, jumping or a thumbs-up signal. The absence of facial expression for communicating positive feelings is, however, not common.

Feelings are also underscored by other visual means. *Lighting and colour saturation* are for instance usually high in photos which communicate positive feelings, but low in negative photos. In happy pictures, models often wear colourful *clothes*, while they in sad pictures wear dark and/or gray colours. Emotional state is also often connected to *setting*. While happy photos might be set in outdoor settings with blue sky and green grass, sad photos often portray models indoors, against a background of vague colourless walls, or on the floor in a corner.

Feelings are generally not expressed gradually, but as either at one end of the scale, or at the center. In non-stock photography, feelings are often ambiguous to interpret, and/or can be interpretable as “perhaps a little bit sad” or “somewhat happy.” Emotional ambiguity or graduality is however not a common representational option in Colourbox stock photography.

Summary of stock imagery analysis

Overall, Colourbox’s imagery for representing *teenager** comes with a strong preference for photographic images. Teen models are photographed at various shot distances, often medium shots. Images often appear clichéd and generic, with generic settings, attributes, often with decontextualized or non-specific backgrounds, and bright lighting. Regarding number of represented models, the most common option is single-person imagery, often in terms of the happy, wholesome teenager, or its negative counterpart. Group photos are also quite common, often as a group of super-happy friends positioned close together. The study supports the preference for female models found in previous research on stock pho-

tography. Colourbox images mainly adhere to conservative gender norms, also in terms of how male and female models are groomed and styled. The most limited potential for representation regards ethnicity. The quantitative analysis found no photos of only non-whites and no photos of more non-whites than whites, and closer analyses revealed that there were no close shots of teenagers of colour. Other markers of ethnic diversity, whether religious or cultural, were also absent. In terms of facial expressions, these are used to communicate positive, negative, and neutral feelings, with little room for emotional ambiguity.

Discussion

The previous section showed that the stock images Colourbox suggests for representing teenagers are inscribed with certain social values. The findings lay ground for the discussion of the second research question on how semiotic work with image banks can contribute to increased digital critical literacy. It will be addressed along two lines: i) critical awareness of visual representations, and ii) critical awareness of digital technologies.

Critical awareness of visual representations

A core area of interest in critical literacy research and its antecedents in critical discourse analysis (CDA) concerns representation of social actors (Fairclough, 2003). The analysis of Colourbox supports the findings of Thurlow et al.'s (2019) that commercial image banks are inscribed with a preference for female models, and an even stronger preference for white persons. The Colourbox imagery studied indisputably makes it difficult to visually represent ethnic diversity. It is also difficult, or, rather, impossible, to represent teenagers with disabilities, or teenagers who don't have the appearance of a model in terms of skin, weight, and facial features. The sociopolitical version of the world promoted by image banks thus warrants critical reflection. Vasquez et al. (2019) puts this dimension forward as one of the basic tenets of critical literacy:

Critical literacy involves making sense of the sociopolitical systems through which we live our lives and question these systems. This means critical literacy work needs to focus on social issues, including inequalities of race, class, gender, or disability and the ways in which we use language and other semiotic resources to shape our understanding of these issues (Vasquez et al., 2019, p. 307).

The general tendency of stock imagery, in particular stock photography, to promote clichéd, generic, white, middle class-oriented images and use slim, able-bodied models seems to be a very strong cultural pattern, as it has been upheld for decades despite public criticism (Frosh, 2013), and despite being acknowledged by image banks themselves (Aiello & Woodhouse, 2016). At the same time, stock photography, according to Frosh (2013, loc 3492), seems to “enjoy a powerful ideological advantage over other sectors producing temporary visual culture: invisibility.” By conducting critical literacy work in schools on stock images, students can learn to make disputable ideologies visible.

In the imagery of teenagers that this study has investigated, Colourbox has come to promote an almost exclusively white version of the world. There could be numerous reasons why this pattern occurred, and for why Colourbox interpret their customers' interest this way, but in a world where diversity is considered a cultural value, also within the Colourbox company, it should be uncontroversial to say that this pattern is worthy of critical attention. In Scandinavia schools today, students and staff are usually diverse. Students are of

European, African, Asian, South American backgrounds, and a broad variety of non-western religious and other cultural expression forms are visually present. The homogenous and white social world of image banks does however not match with the heterogeneous social world of contemporary Scandinavian classrooms. This discrepancy constitutes an apt educational situation for addressing core elements of critical literacy, in particular questions regarding visual representation (what is it possible to represent and what is not?), social interests (whose interests do image banks serve?), and power (who has the power to decide what imagery image banks should offer?). It also sets the scene for discussing questions of democratic participation and agency (how can I contribute to changing social injustices?). Critical literacy work with image banks can in this way prompt students to engage in efforts to recognize, resist and counter social inequalities that are buried in everyday texts and technologies.

Critical awareness of digital technologies

In a society where digital technologies entrench almost every aspect of human life, critical awareness of digital technologies is called for. Most students and teachers are trained to conceptualize software programs as *technological tools*, and to speak of them in terms of user-friendliness and functionality. However, digital technology is itself also culture, deeply inscribed with social values and ideologies. Like all artefacts for meaning-making image banks are produced, developed, and used in social contexts, and socially contingent ideas and ideologies will inevitably be buried into them. These ideas are usually not apparent when looking only at individual images but emerge from the patterned qualities in a larger number of images. Image banks can thus teach students not only to *read against text* (cf. Janks, 2010), but also *against technologies*.

Image banks are apt resources for discussing how certain choices are decided by the text producer (e.g., teachers, students or companies using Colourbox imagery in the digital production of a multimodal text), while others are pre-decided by the producer of the software technology (i.e., what kind of representations Colourbox stock imagery allow for). By including digital artefacts like image banks in critical literacy work, educators can support students to look beyond the surfaces of already designed texts. As image bank representations put less demand of the language skills of students, they can also easily engage students with less proficiency in the L1 language of the classroom.

Conclusion

The analysis presented here is a study of one image bank, and one small aspect of that bank's stock imagery. Other searches within the same image bank might present different results, and the same search in other image banks might show other results. However, based on the analysis conducted here, image banks constitute sites where disputable social preferences which usually are hidden, can be made manifest and visible through multimodal and technological analysis. Image banks are therefore apt sites for critical literacy work with how inequalities in sociopolitical systems can unfold in and be enforced by digital and visual means for representation. In particular, it offers a viable approach to educate students to become critically aware of how ideologies regarding gender and ethnicity can be buried in texts and technologies, and, more generally, to inquire critically into the interests of the seemingly uninteresting and innocuous images.

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