The Selfie:

Making sense of the "Masturbation of Self-Image" and the "Virtual Mini-Me" 1

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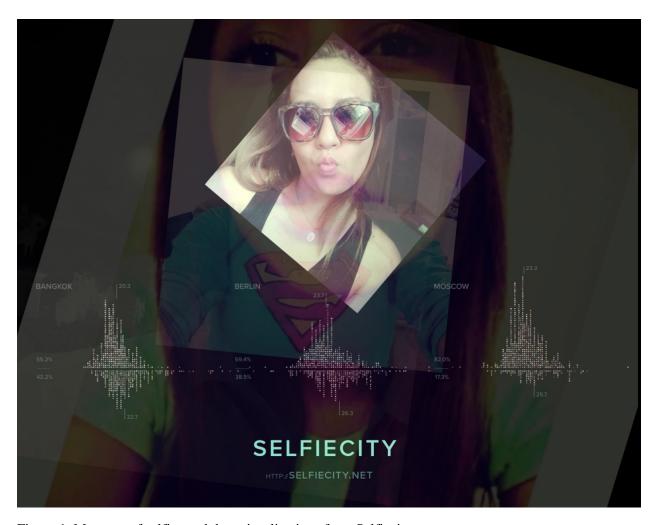


Figure 1. Montage of selfies and data visualizations from Selfiecity.

¹ For the sources of these two metaphors for the selfie, see, respectively, the following articles: Marche, Stephen. "Sorry, Your Selfie Isn't Art," *Esquire, The Culture Blog*, July 24, 2103. http://www.esquire.com/blogs/culture/selfies-arent-art and Clark, Roy Peter. "Me, My Selfie and I," *CNN Opinion*, November 23, 2013. http://www.cnn.com/2013/11/23/opinion/clark-selfie-word-of-year/

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Introduction: Selfiecity and The Networked Camera

Can a single selfie tell us something meaningful about a whole city? A thousand selfies? A million? Does the quantity of selfies make a difference? Can the methods used to analyze selfies produce a new meaning that could not be discovered otherwise? What could possibly a group of selfies, taken in a particular city, reveal us about this city? They definitely can tell quite a lot about the specific individuals who happened to take and post their selfies from a given geographical area within a given time. They also tell a lot about Instagram as an exemplary online image-sharing platform and thus offer some insights into some of the uses of social media in general.

Selfies make us aware about a particular method of self-fashioning and communication that is historically time-specific in the sense that it could materialize only in the moment when several technologies have reached a certain level of development and accessibility. These include the availability of Internet connection, hardware such as easy to use smartphones with cameras, and software that drives the online image-sharing platforms, geo-tagging of uploaded images and other features. Moreover, selfies suggest new approaches to studies of vernacular photography in general, as smartphones in this case function as cameras connected to the Internet (networked cameras), thus presenting a new and hybrid image-making and simultaneously image-sharing device significantly different from all its predecessors. New image-making and image-sharing technologies demand also radically new ways of looking at these images. Big data require "big optics," borrowing Paul Virilio's term from the early 1990s.²

Selfiecity, the research project led by Dr. Lev Manovich and Software Studies Initiative, is an attempt to make sense of a multitude of selfies posted on Instagram. While searching for

² Virilio, Paul. "Big Optics" in Robert Fleck, E.A., ed. *On Justifying the Hypothetical Nature of Art and the Non-Identicality Within the Object World* (Köln: Walther Koenig, 1992), 82–93.

answers to some of the abovementioned questions, Selfiecity reveals the inherent complexities of understanding the selfie as a product of the advancement of digital image-making and online image-sharing as well as a social phenomenon that at the same time serves as a means of individual and creative self-expression.

The selfie is a hybrid that requires hybrid methodological approaches. In Selfiecity, the selfie is treated as a form of self-expression of individual Instagram users as well as a communal and social practice. The research project considers both the individual artistic intentions of a singular image and the overall patterns revealed by large amount of selfies made in a particular geographic location during one week. The team downloaded Instagram photographs that were taken in one week in October 2013 and geo-tagged in the central areas of five global cities:

Bangkok, Berlin, Moscow, New York, and Sao Paulo. From all images, random 140,000 photographs were selected for further analysis. Three Mechanical Turk³ workers were assigned to identify selfies from this pool of images, and finally from the results of their work double-checked by team members, 640 selfies were selected for each city. During the different stages of the research, the project team employed a variety of methodological approaches including computational image analysis methods and custom-made software tools for big data analysis and visualization.

This essay reviews some of the recent debates on the selfie and places it into a broader context of photographic self-portraiture, investigating how the Instagrammed selfie differs from its precursors, as well as mapping out avenues for further research and interpretation of the results obtained in Selfiecity.

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³ For a definition of this service, see the following websites: http://en.wikipedia.org/wiki/Amazon Mechanical Turk and www.mturk.com.

Why Selfies Matter?

Since November 19, 2013 when Oxford Dictionaries announced selfie as "the international Word of the Year" this hybrid phenomenon of vernacular photography and social media has created quite a bit of media hype. A selfie, according to Oxford Dictionaries, is "a photograph that one has taken of oneself, typically one taken with a smartphone or webcam and uploaded to a social media website." According to Jenna Wortham, technology reporter for *The New York Times*, "Selfies have become the catchall term for digital self-portraits abetted by the explosion of cellphone cameras and photo-editing and sharing services. Every major social media site is overflowing with millions of them. Everyone from the pope to the Obama girls has been spotted in one." Selfies have been called "a symptom of social media-driven narcissism," a "way to control others' images of us," a "new way not only of representing ourselves to others, but of communicating with one another through images," "the masturbation of self-image" and a "virtual "mini-me," what in ancient biology might have been called a "homunculus" — a tiny pre-formed person that would grow into the big self."

⁴ "Language research conducted by Oxford Dictionaries editors reveals that the frequency of the word *selfie* in the English language has increased by 17,000% since this time last year." http://blog.oxforddictionaries.com/press-releases/oxford-dictionaries-word-of-the-year-2013/

⁵ http://blog.oxforddictionaries.com/press-releases/oxford-dictionaries-word-of-the-year-2013/ See also Wikipedia entry on the selfie: http://en.wikipedia.org/wiki/Selfie

⁶ Wortham, Jenna. "My Selfie, Myself." *The New York Times*, October 19, 2013. http://www.nytimes.com/2013/10/20/sunday-review/my-selfie-myself.html?smid=pl-share

 $^{^{7} \}underline{\text{www.telegraph.co.uk/news/worldnews/australia}} \underline{\text{www.telegraph.co.uk/news/worldnews/australia}} \underline{\text{www.telegraph.co.uk/news/worldnews/australia}} \underline{\text{telegraph.co.uk/news/worldnews/australia}} \underline{\text{te$

⁸ http://blog.oup.com/2013/11/scholarly-reflections-on-the-selfie-woty-2013/

⁹ Rawlings, Kandice. "Selfies and the History of Self-Portrait Photography." *Oxford University Press Blog*, November 21, 2013. http://blog.oup.com/2013/11/selfies-history-self-portrait-photography/

¹⁰ Marche, "Sorry, Your Selfie Isn't Art."

¹¹ Clark, "Me, My Selfie and I."

Some of the scholarly responses to the sudden rise of popularity and even notoriety of the selfie reveal even wider multiplicity of approaches and possible meanings. For instance, Mark R. Leary, Professor of Psychology and Neuroscience at Duke University and author of The Curse of the Self: Self-Awareness, Egotism, and the Quality of Human Life (Oxford, New York: Oxford University Press, 2004) and editor of *Interpersonal Rejection* has pointed out that "by posting selfies, people can keep themselves in other people's minds. In addition, like all photographs that are posted online, selfies are used to convey a particular impression of oneself. Through the clothes one wears, one's expression, staging of the physical setting, and the style of the photo, people can convey a particular public image of themselves, presumably one that they think will garner social rewards."12

Karen Nelson-Field, Senior Research Associate, Ehrenberg-Bass Institute for Marketing Science, University of South Australia, and author of Viral Marketing: The Science of Sharing (Oxford, New York: Oxford University Press, 2013) is more critical and sees a calculated premeditation behind all the cute, playful, and instantaneous self-portraits posted online: "We now all behave as brands and the selfie is simply brand advertising. Selfies provide an opportunity to position ourselves (often against our competitors) to gain recognition, support and ultimately interaction from the targeted social circle. This is no different to consumer brand promotion." Nelson-Field's argument sounds plausible, as indeed most of the selfies posted to Instagram can appear to be attempts at self-branding, trying to "sell" the best version of #me: positive, happy, accomplished, proud, well-dressed (sometimes partly or completely undressed), seductive or sexy. As Casey N. Cep has rightly noted, "all those millions of selfies filling our albums and feeds are rarely of the selves who lounge in sweatpants or eat peanut butter from the

¹² http://blog.oup.com/2013/11/scholarly-reflections-on-the-selfie-woty-2013/

¹³ http://blog.oup.com/2013/11/scholarly-reflections-on-the-selfie-woty-2013/

jar, the selves waiting in line at the unemployment office, the selves who are battered and abused or lonely and depressed. Even though the proliferation of self-portraits suggests otherwise, we are still self-conscious." ¹⁴ Jenna Wortham has also pointed out that "selfies often veer into scandalous or shameless territory — think of Miley Cyrus or Geraldo Rivera — and at their most egregious raise all sorts of questions about vanity, narcissism and our obsession with beauty and body image." ¹⁵ Moreover, let us not forget Kim Kardashian's white swimsuit that everyone seemed to talk about in 2013. ¹⁶

To conclude, scholars so far have proposed that the selfie among else can function as a means of self-expression, a construction of a positive image, a tool of self-promotion, a cry for attention and love, a way to express belonging to a certain community (even if it is as vague and ephemeral as "all the young, beautiful, and successful ones"). We could confirm or reject such claims by inspecting individual selfies photos. Sometimes the claims are made based on outstanding exceptions that catch people's attention, go viral, and easily become a symbol of the whole phenomenon (think again of Kardashian's white swimsuit selfie, which is featured in numerous articles discussing the selfie). Yet such symbolic images are not necessarily representative of larger trends. Therefore, before making conclusions in order to avoid generalizations unsupported by measurable evidence, some methodological questions should be clarified. For instance, if we use content analysis, a standard method used in communication studies, we should be able to answer the following: what is the source of the selfies we are to analyze and why we have chosen this particular source, what is the total amount of selfies inspected, what kinds of categories we should use for analysis, what is the statistical breakdown

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¹⁴ Cep, Casey N. "In Praise of Selfies," *Pacific Standard*, July 15, 2013. http://www.psmag.com/culture/in-praise-of-selfies-from-self-conscious-to-self-constructive-62486/

¹⁵ Wortham. "My Selfie, Myself."

¹⁶ http://instagram.com/p/fjw59uuS7b/#

within this set of selfies supporting and contradicting our preliminary hypothesis, etc. By analyzing large sample of selfies taken in specified geographical locations during the same time period, Selfiecity argues that we may be able to see beyond the individual agendas (such as the notorious celebrity selfies) and instead notice larger patterns, which sometimes can contradict popular assumptions. For example, considering all the media attention the selfie has received in 2013, it can easily be assumed that selfies must make up a significant part of images posted on Instagram. Paradoxically enough, Selfiecity revealed that only approximately four percent of all photographs posted on Instagram during one week were selfies.

Selfie as Old and New Genre of Photography

In addition to the multiple interpretations expressed so far, it seems especially relevant to view the selfie in the larger context of history of photography and self-portraiture in general. The selfie can be interpreted as an emerging sub-genre of self-portraiture, as an example of the digital a turn in vernacular photography as well as a side product of the recent technological developments, which in their impact and scope are not unlike the revolution in photographic practice associated with the Kodak Brownie camera and its availability for the masses starting in the early 1900s.

Often the term is applied retroactively to proto-selfies or self-portraits made in the nineteenth-century and early twentieth-century photography. These accounts inevitably start with Robert Cornelius's selfie, a daguerreotype self-portrait made in 1839. Another outstanding example of early attempts at dramatically staged self-portraiture is Hippolyte Bayard's *Self-*

¹⁷ See, for instance, http://nypost.com/2013/10/17/the-art-of-taking-selfies-is-nothing-new/, or http://mashable.com/2013/07/23/vintage-selfies/.

Portrait as a Drowned Man (1840). 18 In the context of early photographic portraiture and selfportraiture it is also interesting to note the chosen background or environment. "If a European staged himself outside the studio, the site was most likely a classical or Egyptian ruin. The American pioneer ('The American Adam') situated the self in space – unquestioned, unquestioning, claiming the ultimate otherness of the wilderness, building the American Self," wrote curator James Lingwood. 19 Kandice Rawlings, art historian and Associate Editor of Oxford Art Online asserts: "It seems that from photography's earliest days, there has been a natural tendency for photographers to turn the camera toward themselves."²⁰ Photography can easily be used as a tool for constructing and performing the self. Photographic self-portraits offer ultimate control over our image, allowing us to present ourselves to others in a mediated way. The same problem has been encountered and addressed by artists and photographers. Dawn M. Wilson has pointed out that "[i]n self-portraiture, an artist seeks to have the same kind of access to her own face as she has to the face of any other person whom she might choose to portray; this is why mirrors are invaluable: it is not possible to see my own face directly, but I can see my own face in a mirror."21

It seems even disquieting how true and relevant is what art historian Jean-François

Chevrier wrote almost thirty years before the explosion of the selfie-mania: "The most intimate place for narcissistic contemplation, the room with the mirror – a bathroom for example – becomes in this context the most common of places, where every distinction of the self is in the

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¹⁸ For an engaging discussion of this photograph, see Michal Sapir. "The Impossible Photograph: Hippolyte Bayard's Self-Portrait as a Drowned Man." *Modern Fiction Studies* 40, no. 3 (1994): 619-629.

¹⁹ Lingwood, James. "Introduction," in Lingwood, James, ed. *Staging the Self: Self-Portrait Photography 1840s-1980s* (Plymouth: Plymouth Arts Centre, 1986), 6.

²⁰ Rawlings, "Selfies and The History of Self-Portrait Photography."

²¹ Wilson, Dawn M. "Facing the Camera: Self-Portraits of Photographers as Artists." *The Journal of Aesthetics and Art Criticism* 70, no. 1 (2013): 58.

end abolished."²² By inspecting individual Instagrammed selfies that were analyzed in Selfiecity, a selfie taken in front of a mirror stands out as a particular type or even sub-genre of the selfie. Moreover, often it is the very bathroom mirror mentioned by Chevrier, sometimes also a mirror in an elevator or a gym. Attempt to identify mirror selfies from large data sets using computational image analysis methods would be quite challenging. Because Selfiecity project aims to show what computers can see in images today, the team did not focus on the analysis of the background spaces in the photos.

Chevrier makes unpacking this construction of the self and the selfie even more complicated by applying terms of Lacanian psychoanalysis to photographic self-portraiture. According to Chevrier, "We can no longer escape the obvious truth that every identification presupposes the mediation of an image and that there is no identity that does not pass through this process of alienation. (...) Every self-portrait, even the simplest and least staged, is the portrait of another." another is also a social construction. As research by Nancy Van House, Professor at University of California Berkeley School of Information, has shown, "making, showing, viewing and talking about images are not just how we represent ourselves, but contribute to the ways that we *enact* ourselves, individually and collectively, and reproduce social formations and norms." ²⁴

Furthermore, in photographic self-portraiture, according to Amelia Jones, "technology not only *mediates* but *produces* subjectivities in the contemporary world." Accordingly, the use

²² Chevrier, Jean-François. "The Image of the Other," in Lingwood, James, ed. *Staging the Self: Self-Portrait Photography 1840s-1980s* (Plymouth: Plymouth Arts Centre, 1986), 10.

²³ Chevrier, "The Image of the Other," 9.

²⁴ Van House, Nancy A. "Personal Photography, Digital Technologies and the Uses of the Visual," *Visual Studies* 26, no. 2 (2011): 131.

²⁵ Amelia Jones, "The "Eternal Return": Self-Portrait Photography as a Technology of Embodiment." *Signs: Journal of Women in Culture and Society* 27, no. 4 (2002): 950. Emphasis in original.

of technology, the new online platforms of dissemination of the images in particular, is what makes selfies different from earlier forms of self-portraiture. Rawlings notes that "On one hand, this phenomenon is a natural extension of threads in the history of photography of self-portraiture and technical innovation resulting in the increasing democratization of the medium.

But on the other, the immediacy of these images – their instantaneous recording and sharing – makes them seem a thing apart from a photograph that required time and expense to process and print, not to mention distribute to friends and relatives." Instantaneous distribution of an image via Instagram and similar social networks is what makes the phenomenon of the selfie significantly different from its earlier photographic precursors. It is a product of a networked camera. The selfie consists not only of a self-portrait photograph, but also of the metadata, generated automatically and by the user, of the chosen platform of sharing it as well as the following comments, "likes," and re-sharing by other users.

The very raison d'être of a selfie is to be shared in social media, it is not made for maker's own personal consumption and contemplation (for clarity's sake, the term selfie in this research is applied only to the self-portraits shared via social media, in accordance with the definition provided by Oxford Dictionaries). By sharing a selfie Instagram users express their belonging to a community, or a wish to belong to one. As artist and critical thinker Paul Chan has put it, "In belonging we actualize ourselves by possessing what we want to possess us, and find fellow feeling from being around others who own the same properties. And by properties, I mean not only tangible things, like shovels or tangerines, but more importantly, the immaterial things that give meaning to an inner life, like ideas, or desires, or histories." Thus performing

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²⁶ Rawlings, "Selfies and the History of Self-Portrait Photography."

²⁷ Chan, Paul. "What Art Is and Where it Belongs," *E-flux Journal* no.10 (November 2009). http://www.e-flux.com/journal/what-art-is-and-where-it-belongs/.

the self is at once a private and individual and also a communal and public activity. The individual and unique #me becomes part of #us, a virtual community via means of a common platform for image sharing and the uniform image format provided by Instagram.

Why Instagram Matters?

The project has some socioeconomic limits as data (i.e. selfie) production is limited to users of smartphones who are also active users of Instagram. Even though it may seem that about everyone in the world is, actually only a relatively small fraction of the world population is on Instagram. The United Nations' International Telecommunications Union have mentioned "around 6.8 billion mobile subscriptions" by the end of 2013, which is a significant number considering the current world population of approximately 7.1 billion. ²⁸ The number of smartphones, however, is significantly lower – only 1.4 billion by the end of 2013, according to *Business Insider*. ²⁹ The number of Instagram users is even smaller – more than 150 million monthly users in 2013. ³⁰ A person to be an active Instagrammer anywhere in the world means to fall within a certain income bracket that supports the purchase of a smartphone and monthly expenses related to network subscription and service fees (or to be a dependent of such a person). In addition, it is mostly young adults who post selfies to Instagram – median age of a selfiemaker in Selfiecity sample of 3200 photos is estimated to be 23.7 years.

²⁸ ITU prediction quoted from Embley, Jochan. "Mobile phone subscriptions to equal global population by end of 2013." *The Independent*, October 8, 2013. www.independent.co.uk/life-style/gadgets-and-tech/mobile-phone-subscriptions-to-equal-global-population-by-end-of-2013-8866281.html. World population data from www.geohive.com.

²⁹ Heggestuen, John. "One In Every 5 People In The World Own A Smartphone, One In Every 17 Own A Tablet." *Business Insider*, December 15, 2013. www.businessinsider.com/smartphone-and-tablet-penetration-2013-10.

Rusli, Evelyn M. "Instagram Pictures Itself Making Money." *The Wall Street Journal*, September 8, 2013. http://online.wsj.com/news/articles/SB10001424127887324577304579059230069305894.

Describing an earlier research project phototrails.net³¹ that also was based on analysis of photographs posted on Instagram, Lev Manovich and Nadav Hochman have emphasized the following: "Our work takes advantage of the particular characteristics of Instagram's software. Instagram automatically adds geospatial coordinates and time stamps to all photos taken within the application. All photos have the same square format and resolution (612 x 612 pixels). Users apply Instagram filters to large proportion of photos that give them an overall defined and standardized appearance."³² In addition, the whole phenomenon of Instagram is a perfect example of "softwarization" that Manovich discusses in his most recent scholarly book *Software Takes Command*: "The new "global aesthetics" celebrates media hybridity and uses it to engineer emotional reactions, drive narratives, and shape user experiences."³³ What else makes Instagram so fascinating to study is that we can view it as an archive in the process of becoming. Unfinished, live and living archive evokes multiple exciting questions from the perspective of the recent and much discussed "archival turn" in art historical writing and digital humanities as well.³⁴

Art of the Masses, Finally

The artistic and aesthetic aspects of the selfie form a part of this media hybridity requiring further attention. As often is the case with new trends, the conservative voices have hurried to claim that selfies definitely are not (and cannot be viewed as) a form of art. For

 $^{31} \ \underline{http://phototrails.net/about}$

³² Hochman, Nadav, and Lev Manovich, "Zooming into an Instagram City: Reading the local through social media." *First Monday* 18, no. 7 (July 1, 2013): n.p. http://firstmonday.org/ojs/index.php/fm/article/view/4711/3698

³³ Manovich, Lev. *Software Takes Command* (New York, London: Bloomsbury, 2013), 179.

³⁴ For a general introduction about the archival turn in relation to photography, see *Visual Resources: An International Journal of Documentation* (special issue: Following the Archival Turn: Photography, the Museum and the Archive) 18, no. 2 (2002). For the most recent debate on archives and digital data, see *Journal of Visual Culture* (special issue: The Archives Issue) 12, no. 3 (2013).

instance, Stephen Marche has argued that the ease of taking and disseminating selfies prevents these images from entering the rarified field of art: "We still think of photographs as if they require effort, as if they were conscious works of creation. That's no longer true. Photographs have become like talking. The rarity of imagery once made it a separate part of life. Now it's just life. It is just part of the day."³⁵ Of course, the selfie is not an example of art for art's sake, but it very well could be a new art for the masses, almost like Lenin would have liked it. Or finally "everyone is an artist," just like Beuys envisioned it. And just as family snapshots a couple of decades before, the selfie, the vernacular of the twenty first century, already has entered the museum and the artworld. Selfies have been exhibited in art museums, for instance in the video installation National #Selfie Portrait Gallery in National Portrait Gallery in London, curated by Kyle Chayka and Marina Galperina. 36 The camera manufacturer Leica sponsored an open call of selfies in order to produce a coffee-table book. ³⁷ A life-size sculpture of a nude woman taking a selfie, holding a smartphone in an extended arm, dominated the exhibition *The Still House Group*: +1 #5 by Brendan Lynch and Naomi Larbi in New York in January 2014. ³⁸ Finally, Jerry Saltz in a somewhat belated but well-argued contribution to the debate in the popular media has noted, albeit ironically, that "a lot of quasi-performance-art selfies are better than a lot of so-called art."39

Does that mean that each and every selfie can be viewed as a work of art? Perhaps it can, however Selfiecity is not so much concerned about answering this question. While art historians

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³⁵ Marche, "Sorry, Your Selfie Isn't Art."

³⁶ http://www.moving-image.info/national-selfie-portrait-gallery/

 $^{^{37} \}underline{\text{http://www.huffingtonpost.com/2013/08/02/leica-myself_n_3694899.html}}$

³⁸ This exhibition took place in a storefront exhibition space +1 in Chinatown, viewable 24/7, and was curated by Jonathan Rider as part of *Art in General New Commissions* program. See http://www.artingeneral.org/exhibitions/565

³⁹ Saltz, Jerry. "Art at Arm's Length: A History of the Selfie," *The New York Magazine*, January 26, 2014. http://www.vulture.com/2014/01/history-of-the-selfie.html

traditionally would engage in a close reading of a singular image and practice formal analysis of a unique artifact, the current project instead focuses on patterns in a larger set of images, analyzing such features as pose, facial expression, and mood. At the same time, the website invites visitors to inspect single selfies as well. How to reconcile different approaches to the selfie – how to view the same images as data, as examples of contemporary vernacular photography, and as a form of popular art are among the questions that Selfiecity brings to the table for further discussion.

Taking a Snapshot of the Paradigm Shift

It is a paradox of photography in social media: each individual image is and is not important. Lynn Berger in 2011, even before the craze of Instagram and the selfie, has pointed out that with the advent of smartphone cameras readily connected to the Internet, "the *practice* and *experience* of everyday photography have become more important than the pictures themselves." Does this turn signify a qualitative change, a real shift of paradigm? Berger rather argues for just a quantitative change: "digital cameras, photo sharing websites and cameraphones do not fundamentally alter snapshot photography; they simply amplify an already existing practice." However, Selfiecity more easily relates to the opinion of other scholars who have argued for a noticeable paradigm shift, or what Edgar Gómez Cruz and Eric T. Meyer have called "the fifth moment of photography." The simplicity of online sharing of the images taken

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⁴⁰ Berger, Lynn. "Snapshots, or: Visual Culture's Clichés". *Photographies* 4, no. 2 (2011): 183. Emphasis in original.

⁴¹ Berger, "Snapshots," 184.

⁴² Cruz, Edgar Gómez, and Eric T. Meyer. "Creation and Control in the Photographic Process: iPhones and the Emerging Fifth Moment of Photography." *Photographies* 5, no. 2 (2012): 203-221.

with a smartphone is one of the factors that contribute to this shift, which is characterized by "complete mobility, ubiquity and connection."

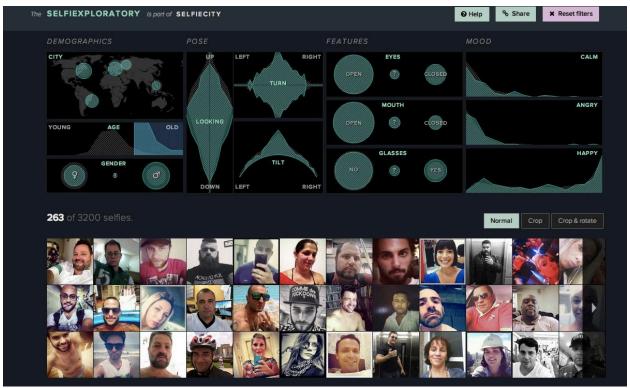


Figure 2. Screenshot of Selfiexploratory, an interactive app on Selfiecity.net presenting the results of research.

According to Manovich, new research tools and methods are required for an adequate analysis of this paradigm shift: "The goals of digital humanities' analysis of interactive media will be different – to understand how people construct meanings from their interactions, and how their social and cultural experiences are mediated by software." The project team develops new tools and methodologies as well as expands the approaches elaborated in previous research projects by Software Studies Initiative (such as phototrails.net), "integrat[ing] methods from

⁴³ Cruz and Meyer. "Creation and Control in the Photographic Process," 219.

⁴⁴ Manovich, Lev. "The Algorithms of Our Lives." *The Chronicle of Higher Education*, December 16, 2013. http://chronicle.com/article/The-Algorithms-of-Our-Lives/143557/

using large sets of Instagram photos for our case study, we show how visual social media can be analyzed at multiple spatial and temporal scales. (...) We introduce new visualization techniques which can show tens of thousands of individual images sorted by their metadata or algorithmically extracted visual features."⁴⁵ Some of these new visualization techniques are employed in Selfiecity, and an interactive app Selfiexploratory invites visitors of the website to engage with the project (Fig. 2).

Selfiecity reaches into different fields of inquiry. In a way, the project is very much about photography and self-portraiture, the traditional fields of art historical scholarship. Yet it is as much about testing the limits of software designed to analyze large amounts of visual information and visualize the results of such analysis, which traditionally belongs to the field of computer science. While focusing on Instagram, one of several available platforms of imagesharing, Selfiecity comments on the social media in general. The project views social media as a vehicle of voluntary interpersonal communication, thus becoming a study of human behavior that could as well be approached from perspective of sociology or communication studies. Further debates on the outcomes of the Selfiecity as well as the selfie in general could also benefit from insights and research methods used in statistics, sociology, media and communication studies as well as from theoretical perspectives of visual culture and gender studies. And it all started so innocently: on January 16, 2011 Jennifer Lee from Oakland shared her selfie on Instagram, and on January 27 she was the first user to tag this selfie as #selfie. 46

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⁴⁵ Hochman and Manovich, "Zooming into an Instagram City."

⁴⁶ Laird, Sam. "Behold the First 'Selfie' Hashtag in Instagram History," *Mashable*, November 19, 2013. http://mashable.com/2013/11/19/first-selfie-hashtag-instagram/ It is also worth noting that January 27, 2011 was the very day when Instagram started using hashtags. See Testa, Jessica. "This is the First Recorded Use of #Selfie on Instagram," *BuzzFeed*, November 19, 2013. http://www.buzzfeed.com/jtes/this-is-the-first-recorded-use-of-selfie-on-instagram

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Annotated Bibliography: Suggestions for Further Reading

I. Vernacular Photography

Batchen, Geoffrey. *Each Wild Idea: Writing, Photography, History*. Cambridge, Mass.: MIT Press, 2001.

The essay "Vernacular Photographies" is an illuminating guide for a beginning of a self-guided study of the vernacular in photography. One of the key points that the author is making is the fact that each photograph can, and has to, be studied critically in order to uncover the underlying forces of political and social ideologies that can go unnoticed because of the misleading "realism" of photography in general. Batchen warns about "the invisibility of the photograph, its transparency to its referent (...). All of us tend to look at photographs as if we are simply gazing through a two-dimensional window onto some outside world" (59-60).

Curtis, Verna Posever. *Photographic Memory: The Album in the Age of Photography*. New York: Aperture, 2011.

Curtis emphasizes the materiality of a photography album and the role of physical interaction with it. The author argues that "[l]ooking at albums redoubles the storytelling impulse that photographs naturally trigger" (7). Similarly as Martha Langford, Curtis believes that an album of vernacular family photography has to be viewed as a mnemonic device and a prompt for oral generation and repetition of family legends.

Cutshaw, Stacey McCarroll, and Ross Barrett, with essays by Bernard L. Herman and Daile Kaplan. *In the Vernacular: Photography of the Everyday*. Boston: Boston University Art Gallery, 2008.

Essay "In the Vernacular: Photography of the Everyday" by Stacey McCarroll Cutshaw and Ross Barrett summarizes the most relevant literature on vernacular photography and succinctly maps out the major debates of the field as well as points to the most significant exhibitions held in museums. The book includes a very useful bibliography, conveniently split in thematic sections, that can serve as a guide to further research in the field.

Hirsch, Marianne, ed. *The Familial Gaze*. Hanover, NH: Dartmouth College, 1999.

The essays analyze different aspects of the image of the family in vernacular photography, often using psychoanalytic approach as the entry point. In the introduction to this volume, Marianne Hirsch ruthlessly unmasks the alleged truthfulness and sincerity of family photography in general, tearing apart the eventual familial idyll and focusing on signs that would prove that almost any family photograph reveals the family's dysfunctional, oppressive, and violent nature.

Langford, Martha. Suspended Conversations The Afterlife of Memory in Photographic Albums. Montreal: McGill-Queen's University Press, 2001.

The author discusses private photography albums as mnemonic devices and links them to the oral tradition of storytelling and creation of family legends. According to Langford, the role of a family photography album is to serve as a prop and a prompt for a kind of a narrated performance where the repetitive nature of vernacular photography further establishes and enforces the family legend.

Nickel, Douglas R. *Snapshots: The Photography of Everyday Life, 1888 to the Present.* San Francisco: San Francisco Museum of Modern Art, 1998.

Discussing mostly anonymous snapshots, Nickel argues that "[t]he snapshot is, by design, an object of sentiment, and though other kinds of images may particularize or court a response by means of sympathy, the family photograph is forged in the emotional response its maker has to a subject, a relationship characterized by its sincerity" (14). The author emphasizes the uniformity of family snapshots as an expression of a shared "collective bourgeois experience" (13) that could be one of the reasons of the appeal and attraction that anonymous family photographs have among photography collectors, museum professionals, and general public.

II. Portrait Photography

Clarke, Graham, ed. *The Portrait in Photography*. London: Reaktion Books, 1992.

Essays collected in this volume are useful for historical insights and some of the key debates on portrait photography.

Kozloff, Max. *The Theatre of the Face: Portrait Photography Since 1900.* London: Phaidon, 2007.

The book provides a chronological survey of portrait photography. The structure of the book revolves around larger cultural tropes and political events that for the most part reflect the current tendencies in the critical and theoretical discourse on photography. These tendencies include the concept of difference, discussion on photography in relation to memory and death etc. The chapter titles provide a quick guide to the twentieth-century portrait photography according to Kozloff: "Retrospection and Clairvoyance.

Portraits of the Early Twentieth Century," "Introversions of the Self. The Author in the Portrait 1900-1935," "Shades of Valour. Portraiture and the Making of History. 1930-1945," "The Sander Effect. Portraiture and the Exposure of the Masquerade," "Insiders and their Cultures. Portraits of Difference 1970-2000" and "From Celebrities to Nonentities. Portraiture, Beauty and Death. 1980 to the Present."

Maddow, Ben, and Constance Sullivan. *Faces: A Narrative History of the Portrait in Photography*. Boston: New York Graphic Society, 1977.

The mammoth book meticulously walks us through the early stages of photographic portraiture into the 1970s. The book can be considered a great resource for visual information. The authors have based their selection on criteria that differ from one historical period to another, which can be confusing at times. A survey of the decades of early photography is structured according to the technological inventions (such as

calotype and daguerreotype). The second half of the nineteenth century is structured by the geographic origins of the photographs, limiting the sources to the US, England, and France. The next part is based on formal qualities of an artistic style (chapters dedicated to Pictorialism in Europe and the US). Further the authors offer a social perspective in chapter "Class and Conscience," heavily focusing on the US. Finally, the authors have chosen to discuss separately studio portraits, celebrity portraits, and portraiture in street photography.

- Perich, Shannon Thomas. *The Changing Face of Portrait Photography: From Daguerreotype to Digital*. Washington, DC: National Museum of American History, 2011

 An in-depth study on photographic portraits made by nine American photographers: Richard Avedon, Julia Margaret Cameron, Lauren Greenfield, Henry Horenstein, Gertrude Käsebier, Dorothea Lange, Nicholas Murray, George K. Warren, and Robert Weingarten.
- Sobieszek, Robert A. *Ghost in the Shell: Photography and the Human Soul, 1850-2000: Essays on Camera Portraiture*. Los Angeles: Los Angeles County Museum of Art, 1999.

 Even though the book focuses on portraiture in general, it also contributes to the debate on the photographic self-portrait. Sobieszek makes a distinction among "traditional, modernist, and postmodernist views of the face" (12) and connects the different approaches to portrait photography with broader cultural paradigms. One of the most significant contributions to the discussion is Sobieszek's use of the term faciality, originating in Gilles Deleuze and Félix Guattari's writings as *visagéité* (1980). According to Sobieszek, "this term aptly conveys the quality or condition of having facial expression or the instance of a face that signifies." (13, n.1.) Overall, the book offers an original version of history of photographic portraiture that can be useful for approaching the phenomenon of the selfie as well. As the author concludes, "For more than a century and a half, artists with cameras have been exposing the gymnastics of the human soul, measuring the tolerances of the human face, and constructing abstract machines of faciality" (290).

III. Self-Portrait Photography

- Dalton, Jennifer. "Look At Me: Self-Portrait Photography after Cindy Sherman." *PAJ: A Journal of Performance and Art* 22, no. 3 (2000): 47-56.

 Dalton discusses photographic self-portraiture in contemporary art, focusing on work by Nikki S. Lee,
 Anthony Goicolea, and David Henry Brown, Jr.
- Jones, Amelia. "The "Eternal Return": Self-Portrait Photography as a Technology of Embodiment." Signs: Journal of Women in Culture and Society 27, no. 4 (2002): 947-978. From the perspective of gender studies, Jones discusses self-portraiture as a means to construct sexual, gender, and racial otherness in works by Cindy Sherman, Hannah Wilke, Lyle Ashton Harris, and Laura Aguiliar.

Lingwood, James, ed. *Staging the Self: Self-Portrait Photography 1840s-1980s*. Plymouth: Plymouth Arts Centre, 1986.

Even though this exhibition catalog was published a couple of decades before the era of the selfie, essays included in this volume elucidate many issues that are as relevant for the current debate on the selfie. The book can be recommended as a starting point and thematic guide for interpretation of the new sub-genre of self-portrait photography.

James Lingwood in "Introduction" (5-7) maps out some of the approaches that are still valid in the larger debate of photographic self-portraiture in the age of Instagram and iPhone, such as incoherence, fragmentation, and multiplicity of selves. Jean-François Chevrier in essay "The Image of the Other" (9-15) draws heavily on psychoanalytic approach, arguing that "very self-portrait is inevitably, by its very nature, a doubling, an image of the other" (9).

Susan Butler in "So How Do I Look? Women Before and Behind the Camera" (51-59) addresses the photographic self-portrait from feminist perspective, talking about the male-gaze-controlled pictorial universe, specific "strategies of feminine appearance" (51), and gender roles (56) that either contribute to the dominant conventions of representing women or radically subvert them, "attempting to reclaim the female body as an icon of their own experience rather than a ground of projection for male fantasy"(53). Gender-conscious approach informs also the essay "The Watchmen: or Notes on the Imaginary Male Self in 20th Century Photography" by David Mellor (79-85). The author also employs psychoanalytic approach, using terms such as fetish, narcissism, fear of castration, patriarch, and phallic.

Sapir, Michal. "The Impossible Photograph: Hippolyte Bayard's Self-Portrait as a Drowned Man." *Modern Fiction Studies* 40, no. 3 (1994): 619-629.

An engaging and original approach to one of the most celebrated self-portraits in the history of photography.

Wilson, Dawn M. "Facing the Camera: Self-Portraits of Photographers as Artists." *The Journal of Aesthetics and Art Criticism* 70, no. 1 (2013): 55-66.

Wilson introduces an important discussion concerning the complicated relationship between automatism and artistic agency in photographic self-portraiture. The article focuses mostly on works by female artists and photographers such as Ilse Bing, Diane Arbus, Francesca Woodman, Nan Goldin, and Gillian Wearing.

IV. Photography, the Internet, and Social Media

Berger, Lynn. "Snapshots, or: Visual Culture's Clichés". *Photographies* 4, no. 2 (2011): 175-190.

The article explores the snapshot or amateur photograph in the light of term cliché used in literary criticism, offering a fresh insight into the issues related to digital photography in general. Backed up by a vast survey of relevant literature, Berger argues that "Just as the cliché left its mechanical nest to become part of literary culture, the snapshot came to act as the cliché's visual twin. Both are generally seen as the

commonplace antithesis of romantic originality and creativity, and both are associated with a loss of individuality. Yet at the same time they perform vital social and personal functions – as containers of memory much more ancient than their industrial and modern nature suggests" (183).

Cruz, Edgar Gómez, and Eric T. Meyer. "Creation and Control in the Photographic Process: iPhones and the Emerging Fifth Moment of Photography." *Photographies* 5, no. 2 (2012): 203-221.

The article provides an original perspective on the history of photography, discussed by the authors in terms of infrastructures, discourse, and social uses of photography starting from the emergence of the medium in the nineteenth century until the latest present-day developments in digital photography, social media, and online image-sharing platforms. Among the most interesting arguments of this article is the proposal of "the fifth moment of photography," i.e. a true paradigm shift brought by the smartphone photography and Internet connectivity available for mass audiences that marks a significant and qualitative change in the understanding of the medium.

Hochman, Nadav, and Lev Manovich, "Zooming into an Instagram City: Reading the local through social media." *First Monday* 18: 7 (July 1, 2013), n.p. http://firstmonday.org/ojs/index.php/fm/article/view/4711/3698

Scholarly introduction to the groundbreaking research project phototrails.net based on computational analysis of photographs posted to Instagram.

Paul, Christiane, and Julian Stallabrass in conversation with Katrina Sluis. "The Canon after the Internet." *Aperture* no. 213 (Winter 2013): 36-41.

The participants of this conversation touch upon the Western canon of art history, allegedly endangered by the seemingly anti-canonical Internet-based platforms for photography. In addition, they discuss many related topics such as collecting and archiving online content, dependency on software, copyright issues, the importance of online presence of photographers, the question of medium specificity and its validity in present-day circumstances, and others.

Van House, Nancy A. "Personal Photography, Digital Technologies and the Uses of the Visual," *Visual Studies* 26, no. 2 (2011): 125-134.

Van House in this article offers a new perspective on photography in the context of social media. The author addresses "personal photography as (...) multiple, overlapping technologies: of memory; relationships; self-representation; and self expression, all of which are changing in the digital environment" (125). Van House uses "science and technology studies (STS) for help in understanding photography as an on-going practice of assemblage and performance, and the changes in photographic technologies as an opportunity to see technology-in-the-making – the activities by which people are reproducing sociomaterial relations" (125).

V. Selfies

Considering the newness of the selfie phenomenon, a considerable body of scholarly articles and books is not available yet. However, articles from the popular press and blog entries provided below can give a useful insight into some of the current debates and map out some of the hottest topics regarding the selfie.

- Cep, Casey N. "In Praise of Selfies," *Pacific Standard*, July 15, 2013. http://www.psmag.com/culture/in-praise-of-selfies-from-self-conscious-to-self-constructive-62486/
- Clark, Roy Peter. "Me, My Selfie and I," *CNN Opinion*, November 23, 2013. http://www.cnn.com/2013/11/23/opinion/clark-selfie-word-of-year/
- Laird, Sam. "Behold the First 'Selfie' Hashtag in Instagram History," *Mashable*, November 19, 2013. http://mashable.com/2013/11/19/first-selfie-hashtag-instagram/
- Marche, Stephen. "Sorry, Your Selfie Isn't Art," *Esquire, The Culture Blog*, July 24, 2103. http://www.esquire.com/blogs/culture/selfies-arent-art
- Rawlings, Kandice. "Selfies and the History of Self-Portrait Photography." *Oxford University Press Blog*, November 21, 2013. http://blog.oup.com/2013/11/selfies-history-self-portrait-photography/
- Saltz, Jerry. "Art at Arm's Length: A History of the Selfie," *The New York Magazine*, January 26, 2014. http://www.vulture.com/2014/01/history-of-the-selfie.html
- Testa, Jessica. "This Is The First Recorded Use Of #Selfie On Instagram," *BuzzFeed*, November 19, 2013. http://www.buzzfeed.com/jtes/this-is-the-first-recorded-use-of-selfie-on-instagram
- Wortham, Jenna. "My Selfie, Myself." *The New York Times*, October 19, 2013. http://www.nytimes.com/2013/10/20/sunday-review/my-selfie-myself.html?smid=pl-share