I, for one, welcome our new Overlords

Introduction: Multitude

The development and deployment of the Internet has given rise to a new multitude. Not the multitude which, trough hard, physical labor would build the wonders of the world, but a multitude which build information. Virtual wonders.

Adjusting the aim, previously directed at the head of the so called *long tail,* the passive masses, companies try to engage the latent niches, a murmuring multitude, which endlessly extends throughout the tail. The niches become the mainstream. It's about 'You', 'We' and 'Us', where the You trough sharing and simplistic emotional expression confirms We, and the We turns in to Us. Community.

The idea of digital community, where information is exchanged in a non-hierarchical 'bazaar'-like fashion, has roots in the seventies tech-academia. By default computer code would be *open source*, open for tinkering and hacking by both professionals and amateurs, the amateur not necessarily being less skillful than the professional. The spreading and growing implementation of the Internet gaining speed throughout the nineties meant that this gab between amateur and professional has become questionable. Businesses, organizations and others, slowly, and mostly by accident started to engage what is now often refereed to as the *Crowd*. Crowdfunding, Crowdvoting, Crowdsourcing. The multitude.

The Internet, from an end-user perspective is no longer reserved for the tech-savvy, but open for the common. End-users are no just end-users but part of a greater cycle of exchange. Because the Internet is accessible to the most, and digital tools are free, if not free then crackable, many authors, writers, companies, etcetera, claim over and over again that this is the great democratization of information.

Utilizing a multitude

Having this ideal prelude in mind, enter self proclaimed 'geo evangelist' Aidan Chopra, and his keynote presentation at the 'Google Geo Users Summit', in Barcelona 2011[1].

The presentation has the title 'Superheroes of the Future'. By this he refers to the audience sitting in front of him. These are users actively volunteering to contribute to Google's 'Geo' oriented

1 Adian Chopra, ”2011 EMEA Google Geo Users Summit - Keynote: Aidan Chopra”, GoogleGeoCommunity (video) (2013) http://www.youtube.com/watch?v=xVacZfQPOt0

platforms. Many of them are 'geo-modelers', individuals, freely adding 3D-content to Google Earth.

Chopra goes on to explain how UGC, User Generated Content, is at the heart of what makes the products of Google incredible. He states; '[n]o matter what comes next your work is critically important'. The users are aroused by his talk and by the feeling of being superheroes. In the end they are encouraged to stand in group and shout "UCG! UGC! UGC!"[2].

Two years later, the users of Google Earth and their critically important work has been discarded and replaced by a more efficient and consistent technology.

Prior to this incident, geo-modelers would build 3D-models in the previously Google-owned software 'SketchUp', and subsequently pass them on to Google Earth. Here they would become part of a 3D replication of the Earth. Far from all models were accepted by the Google team, reviewing the incoming content.
Virtual buildings and highly detailed landmarks would soon populate the Earth. Some modelers even reconstructed whole cities. Many were motivated by the joy and pride of being able to 'claim' that they put their hometown in the digital spotlight. They saw that the Earth grew, and they were applauded and and approved by Google. Other modelers saw an opportunity for monetizing the virtual building making, offering their services to landlords, shop owners and airports, amongst others.

What mattered to the geo-modelers, was not the provider making the platform and the tools accessible. What mattered was having the means for personal and artistic expression and communication at hand. It was about the You, We and Us. Of course executives at Google understood this. They were tapping into a self-propelling force, and they knew how to fuel it. Users became 'Superheroes', top-modelers, and even super-modelers. Hidden behind illuminated computer screens, working under pseudonyms such as 'Stray Kat' and 'SnowTiger', the band of geo-champions, would model the world into a better place. The community was commodified.

Google even thanked the most active contributors, shipping out presents to over 600 individuals around the globe. The present contained a 'Thank You'-postcard, a mug, a pencil case, stickers and post-it notes. This was a few weeks before Google sold SketchUp.
Users were split. Some got excited and, urged by Google, started posting 'selfies' on the official user-forums holding up the Google-mug. Others were less optimistic, a user writes;

2 Attachment: Email Correspondence 01, Andreas Eisenbarth (2014)

> I got my gift today too. Thanks!
> I might have changed the wording on it though. It could have read " I modeled over 2000 models for Google Earth and all I got was this coffee cup"
> or "I lost my primary source of income but at least I got a cool coffee cup out of the deal"
> Just kidding. Well, not really.[3]

The bazaar was appropriated in the hierarchies of Google's cathedral. Google Guides, moderators of the community, acted as cardinals supervising and streamlining the merchants of the bazaar. The merchants, or the modelers were converted into members of the laity, self-controlled and self-contained units of production.

Google decision to sell SketchUp indicated the final days of user generated content on Google Earth. In October 2013 Google announced that the user model pipe-line was closing down.

The users/superheroes/merchants/laity were disbanded and forced to retire, and the once flourishing community is dissolving, exiled from the Earth they once inhabited.

A lot of work and research has been done on cognitive labor, the crowd, the new niches, consumers as producers, and online communities. The thesis will engage one such community specifically, the Google Geo Modelers. Trough primary research, I will cover the dynamics of user and provider relationships in this case-study, looking critically at pitfalls and 'positives' of such symbiosis, while relating them to a broader context.

Chapter 1: Community

Shortly after Google officially announces the selling of Google SketchUp, panic is spreading amongst its huge 3d-modellers community. Google SketchUp is to be sold to Trimble, a corporation mainly working withing the fields of navigation and mapping. developing both hardware and software for these purposes[4]. 'Google SketchUp' is renamed 'SketchUp'. As indicated, the users are split in two camps; one camp skeptical towards the unknown implications of an owner change, while the second camp tries to pour oil on the troubled waters attempting a more pragmatic, optimistic approach. The feeling of panic is vividly expressed in the official user forums:

> ...I deleted all my [...] models!
> ...I will also delete all my models!

3 Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Douglas Willett (user), "Google Gift", (2013), https://groups.google.com/forum/#!searchin/3dwh/gift/3dwh/bM0x5A0SsOQ/ki36CrKoTrEJ

4 Trimble, Official Website (2014), http://www.trimble.com/

> ...It is Over.
> ...People are starting to Jump!
> ...I, for one, welcome our new [...] Overlords.[5]

Within the ownership of Google, SketchUp gained massive attention as a tool to populate Google Earth with 3D-models. A strong community of 'geo-modelers' grew forth aided and supported by Google. On a voluntary basis these dedicated modelers would spend hours building models to be pushed to Google Earth.

The quoted segment from above contains fragments from the discussion thread “I, for one, welcome our new Trimble Overlords” found in the official geo-modeler forum; “3D Modeling for Google Earth & Maps”[6]. The discussion was started in the immediate after-wake of Google's announcement to sell SketchUp to Trimble, on the 26'th of April 2012.

The author of the discussion starts out by faithfully greeting the new owners with; “I, for one, welcome our new Trimble Overlords”. Already here a distinctive relationship between the users and the provider is indicated. The greeting originates from the film adaption of the book “Empire of the Ants”, in which mutated super-ants take over the Earth as we know it. A figure in the film reacts to the Ant threat by exclaiming “I, for one, welcome our new insect overlords”[7]. This quote was later appropriated in an episode of “The Simpsons”, and subsequently 'memified' as a popular template to announce the coming of a new totalitarian reign. Of course the meme was meant as a joke, but still it has a hint of seriousness attached to it.

The thread attracts a lot of attention and becomes a place (one of the many) where modelers share their concerns for the future of the platforms. Many blurt out radical statements about deleting their content from the platforms, while fewer actually follow trough. Yet the discussion clearly

5 Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Various fragments, (2013), https://groups.google.com/forum/#!topic/3dwh/C168LKLRGVo
6 Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", https://groups.google.com/forum/#!topic/3dwh/
7 Know Your Meme (Article Entry), ”I, For One, Welcome Our New Insect Overlords”, Know Your Meme (2010), http://knowyourmeme.com/memes/i-for-one-welcome-our-new-insect-overlords

indicates a rupture in a ecosystem in which the modelers become aware of their situation as *users* of a 'closed circuit', an environment they themselves are not capable of controlling. The power is in the hands of the O*verlords* and the subjects of the regime, the community of users, only waits blessing or disaster.

The first of October 2013, slightly more than one year after Sketchup was sold, Google announces that it is discontinuing its user contribution program[8]. Geo-modelers and the content they've produced over the years are to be replaced by newer technology. There are multiple reasons for this decision, some official, others more speculative. Centrally though is the fact that the new technology which Google is implementing; the auto-generation of buildings and landscapes from a vast array of sources, cannot coexist with user generated models, since this will cause spatial conflicts. Disaster strikes the community. Users in the forums paint this 'Armageddon-esque' picture quite literally. For example, the user 'Richard Pedicini':

> But would it perhaps be possible for Google to announce places where it will "not" be doing autogen [*sic*: auto-generated] models? Providing a safe haven to model without fearing a sudden autogen tsunami?
> Wouldn't it be great to read a message here from Craig, assuring that "We'll always have Paris"? [9]

Craig, the person Richard Pedicini refers to is a one of the central Google employees with whom the community can interact with. A so-called 'Google Guide'. Google is pleaded to leave Paris alone, as a haven for the geo-modelers and their passion.

Software, Platform & Repository

For the sake of overview a brief outline of the different the implicated software, platforms and their relations will be sketched out in the following. What binds these pieces together is the utilization of the crowd; users who contribute their time and energy producing content, which is shared amongst peers, provider and like-minded.

Google Earth

Google earth is the key software, where the user is able to navigate a virtual rendering of the earth in a highly detailed 3D-environment. While a texture of satellite-images is mapped onto the earth, a

8 Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Google Craig (user/Google moderator), ”User generated 3D model pipeline has been retired October 1st, 2013”, (2013), https://groups.google.com/forum/#!topic/3dwh/epXUQA2bJ2s[1-25-false]

9 Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Richard Pedicini (user), ”The Next Dimension of Google Maps - Official Post”, (2012), https://groups.google.com/forum/#!topic/3dwh/-GQj7OlZshA%5B1-25-false%5D

layer of 3D models also covers the surface of the earth. These are models in various formats; houses, schools, train-stations, etc. The amount of 3D models accessible varies from one location to the next. Generally metropolitan areas are more covered than rural areas. The amount of 3D-content relates directly to a) how detailed the area has been mapped by Google and b) how active users of SketchUp have been reconstructing 3D models of buildings and applying them to Google Earth.

Being a mere user of Google Earth you would not necessary consider the 3D-citites that you encounter as human-made. Most probably you would have no interest in their origins, just as long as they are available. Yet until recently all 3D content on Google Earth was created by a human modeler. Of course not one modeler alone, but the more than 30 million volunteering modelers from around the globe[10]. Modelers would find their niche; build their home town, specialize in reconstructing medieval architecture, reconstruct local landmarks, or find a strategy of monetizing their passion by offering to represent local shop-owners on the virtual globe. Naturally structures of greater interest, such as monuments, statues, historical buildings are reconstructed in great detail. Often modelers would compete to make the best reproduction of a structure, thereby iterating over and refining the virtual representation.

Prior to the shut down of the platforms, modelers would apply their finished structures for a mandatory review conducted by Google-staff on a bi-monthly basis. If accepted they would be merged with Google Earth, and accessible for the world to see.

SketchUp

Behind the surface of Google Earth, the workings of a huge network of volunteering 3D modelers is hiding. Each of these would use the 3D modeling software SketchUp to model whatever he or she saw fit. It was originally founded by the small software company, '@Last Software', which in 2006 was bought by Google. After acquiring SketchUp, Google released the software free of charge (freeware). During the six years of Google-ownership the software attracted over 30 million new users, laying the foundations to a global community of 3D-modelers.

Any official statement explaining Google's acquisition of SketchUp in 2006 was never made. Yet interest was shown from Google towards '@last Software's' development of a plugin for SketchUp making it possible for users to place their models directly on 'Google Earth'.

10 SketchUp, John Bacus, ”A new home for SketchUp ”, Sketchupdate (2012), http://sketchupdate.blogspot.nl/2012/04/new-home-for-sketchup.html

The product marketing manager, Jeff Martin, of @last Software reveals Google's interest in the software in following blog-post, just after the acquisition:

> It's often like that. People see SketchUp and they love it. Now that we're part of Google, how many of those ah-ha moments will happen every day? Already we've had hundreds of users create 3D content in SketchUp and place their models in Google Earth. (A free plug-in enables you to do this.) What will that virtual world look like when tens of thousands of users are doing the same?[11]

One of Google's central motives is on display: The 'tens of thousands of users' were to populate 'Google Earth' with houses, high-rises, factories, etc., piecing together a virtual rendering of the earth. The latent crowd of users, each eager to show the world his or her passion for something specific, was to be activated trough free software, a throbbing community and virtual 'carrots'; symbolic badges, physical gifts and other perks.

3D Warehouse

The 3D Warehouse warehouse acted as a stepping stone for publishing a model to Google Earth. Users would upload their models to the warehouse, share the model with others, have the possibility to get exposure and critique, and also mark it as 'Google Earth Ready'. This last option would prompt the model to be reviewed by Google before being pushed to Google Earth.

Supposedly the 3D Warehouse is 'the largest repository of free 3D content in the world'[12], and content-wise it is extremely diverse, hosting a large segment of buildings and structures from Google Earth, but also items such as furniture, precisely drawn building components, vehicles, models of human-beings, etc. The repository has guidelines and rules but these are enforced only trough a whistle-blower system run by users themselves. This somewhat loose and open nature of the repository attracts a broad and diverse group of users, creating a vast array of 'sub-scenes' and 'subcultures' each with their own niche-interest; from Japanese Mech Warriors[13] to reconstructions of German kitchens from the 1920's[14] to models named 'SPAM!!!'[15]. Furthermore this structure creates a pragmatic and friendly entry-point for new-comers. Everyone could create a model in SketchUp, upload it to the 3D Warehouse and receive comments by surrounding peers. It was not

11 Google, Jeff Martin, "A new home for @Last Software", Google Official Blog (2006), http://googleblog.blogspot.nl/2006/03/new-home-for-last-software.html
12 SketchUp 3D Warehouse, Trimble (2014), http://www.sketchup.com/products/3D-warehouse
13 SketchUp Model 01, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=6df08224cb44891c59c6798f507981a6&prevstart=12
14 SketchUp Model 02, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=da0aa4b23537f20bf5d923b073c2fb6c&prevstart=0
15 SketchUp Model 03, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=6e7613602dc763f88c398d1ef4195d00&prevstart=0

required from users to create models for Google Earth, but naturally the 3D Warehouse became a runway towards a very invested and passionate hobby for many aspiring amateur modelers.

A community of super-heroes: Vocabulary of choice

As SketchUp gained popularity, millions of models would start to inhabit Google Earth. Users felt proud of taking part of a huge online community with the purpose to digitize the physical world. They felt needed (and indeed they were), to create the content for the virtual earth, turning it into an almost tangible space, for all to browse and enjoy.

Several 'geo-user' camps and summits were held around the world in honor of the SketchUp Modelers and Google's other geo-related platforms. The events had the main purpose of bringing the most dedicated users together, to discuss future developments of the project, and to inspire the these to do even better. These were provided accommodation in expensive conference hotels, served food and engaged in a tone where they would feel extremely valuable.

With the title “Superheroes of the Future”, and in his childish 'happy-go-go' fashion Chopra excites the audience in his camp-speech in Barcelona 2011. Trough his rhetoric, the voluntary contributors feels a strengthened relationship to each other, and a strong commitment towards the platform they are building up. The audience is now a self-supporting band of super-heroes committed to a higher goal. Superheroes don't quit. They might struggle hard, but will always win. Superheroes (emphasis on plural), the fictive champions of cartoons and Hollywood blockbusters, are by nature the *'good-guys',* making the world a better place while sustaining peace and order. Their motives are beyond any personal scope and the result of their actions are meant for the common.

Meeting the Superheroes: Motivation

Trough a series of open interviews I've had contact with the *Superheroes.* These are individuals coming from multiple parts of the world, of both gender, various ages and with very different background. In the following I will portray some of these and highlight their motivation for being 3D modelers for Google Earth.

Matthias Basler is a German geographer and computer-programmer. His career as a 3D modeler ended abruptly by his determination to delete all his models from Google Earth and the 3D warehouse in frustration of Google's decision to sell sketchUp and shut down the platforms. Basler started out by modeling his own house and from this he moved on to model a dozen of

buildings in Weißenburg in Bayern, Germany. Gathering knowledge about the software, its bugs, glitches, and getting to understand how a model would be easily accepted to Google Earth by the 'review team', he realized he could help other modelers. This was manifested in the guide and *wiki*; "Tips for modelling buildings for Google Earth"[16] in 2008. It was hosted at SketchUp Sage, a site which consists of multiple guides and tips from experienced SketchUp users (*sages*) who are willing to share their knowledge. Basler writes:

> As my skills and knowledge improved over the years, so did the tutorial. It was soon embedded in a fellow geomodeller's website and even acknowledged and pointed to by the Google Guides.[17]

Baslers passion for modeling did not limit it self to the act of modeling, but it extended much further. He got involved with other like-minded individuals at his own 'level' and he was addressed as a 'sage' and officially acknowledge by Google. This of course drove him into a position where he was deeply invested in the platforms on a personal level. The more fellow modelers he assisted, the better his reputation grew. He continued his modeling in Weißenburg, and at the peak of his 'modeling career', he had modeled more than 400 buildings in the town, which gained him enough attention to reach the local newspaper and municipality:

> In April 2010 I was contacted by a local newspaper for an interview about the city model project. A few weeks later I could read a full-page article in the local addition of a saturday's newspaper issue. I was proud, of course.
> […] [T]he city of Weißenburg asked me to use the models for a new city map to be applied next to the train station in Weißenburg. It is supposed to guide visitors to the tourist attractions of the city: The gothic city hall, the St. Andreas Church, the city wall and the market hall "Schranne" for example. I am still proud walking past this map each time I am at the train station. And I am happy that it so far did not fell prey to vandalism either. [18]

The recognition of Baslers work and efforts extended the digital realm and merged with the physical world of close proximity. Basler was rewarded with emotional satisfaction for the modeling he did for Google Earth. He did not see his contribution as work for Google, but rather as personal investments in him self and his surroundings. Another interviewed top-modeler, Andreas Eisenbarth, addresses this disconnection as such:

> The modelers [...] concentrated on their artworks and sharing. Compared to MapMakers or Panoramio [other related Google platforms] users they were less associated to the brand of Google. I didn't ever feel as a Google Evangelist, but rather as an artist, and Google provided an easy platform for us that required almost zero effort other then making our art.[19]

16 SketchUp Guide (Unofficial), "Tips for modelling buildings for Google Earth", SketchUp Sage (2008 -), https://sites.google.com/site/sketchupsage/google-earth#TOC-Tips-for-modelling-buildings-for-Go
17 Attachment: Email Correspondence 02, Matthias Basler (2014)
18 Ibid., Basler, email correspondence
19 Ibid., Eisenbarth, email correspondence

Modelers were free to unfold their creative potentials, working as autonomous artists across the world. They did not necessarily feel associated with Google as a brand. Google did not step out of the scenes but let the volunteers create their world. Basler continues:

> The community was an important part of the overall project, obviously. How else could the aim to model "the whole world" be achieved? I never had a problem with "crowd-sourcing" and I felt it was fair enough: We got a software for free, Google got the models for usage (and bug reports by the way) and each geomodeller could enjoy or envy the fellow modeller's nice buildings. It really gave me a pleasure to soar over cities like Nördlingen (Germany), Getaria (Spain), Antwerp (Belgium), San Francisco or Vancouver. [20]

Again the very emotional-loaded motivation is underlined. Sharing work with surroundings, envy and admiration for fellow modelers creations were central forces driving the passion. The community was at the heart of Baslers motivation. Basler furthermore indicates his relationship with Google, which does not fall far from Eisenbarths experience; modelers were given software and platform for free, allowing them to unfold themselves creatively and gain attention and social status. Google on the other hand 'crowd-sourced' the creation and building of their product. It is clear that both parties, Google and the modelers, 'earned' from their exchanges.

Katya Kean is a 3D modeler with a different approach to her practice of modeling compared to Bassler and Eisenbarth. Modeling for various local clients; airports, vacation homes, dental cares in both Alaska and Arizona in the USA, Katya manged to carve out a small business niche of which she made her living. Under the name 'Stray Kat Studio'[21], Keans hobby for 3D-modeling melted together with 3D-modeling for money. Again the position of Google was of less direct importance, as long as they provided the platforms. Kean writes:

> I made money off their platform and they never asked for a cut. We used Google Earth. They didn't exactly take advantage of anyone. Modelers either modeled for money or fun. They shouldn't expect power over Google's policies as well. […] I have no regrets. Technology will always be disrupted. I had fun, made thousands, and learned a lot. […] I started waitressing this winter, after shutting down my modeling business. I'll work here for another few weeks until the season ends in this vacation town, and hopefully by then I'll have found a GIS/Marketing/Design job in another area.[22]

Straight away Kean distances her self from the idea that Google might have taken advantage of her and other modelers work. The platforms was a place for both entities to exist in a symbiotic relationship; Google had their product built by thousands of modelers working for 'free', a 'free' which did not mean that the modelers went away empty handed. Modelers went away with social

20 Ibid., Basler, email correspondence
21 Stray Kat Studio, Facebook page (2010 -), https://www.facebook.com/straykatstudio
22 Attachment: Email Correspondence 03, Katya Kean (2014)

rewards in the shape of recognition from fellow peers, pride in having modeled a town and the occasionally monetary win gained from a third party. In the '2012 Google Model Your Town Competition', Google puts it like this:

> Show your civic pride (and maybe win a prize) by creating a 3D portrait of your community and sharing it with the world. You have the power to get your town on the map – and there's no bigger map than Google Earth.[...] Having a 3D model of your town in Google Earth helps residents and visitors understand it in a way that flat maps and photographs can't. You can be a local hero by making a contribution to your town's future.[23]

The quote is filled with keywords such as; *pride, win, community, share, You, hero, future,* which precisely encircles the topic. The individual in the crowd is addressed as a unique person, a proud hero ready for the win. Yet with every single individual being unique in a platform which actually aims at presenting a unified and streamlined product, the idea of *the unique* rather seems like a mode of address. The promise of the unique is a carrot of engagement for the individual modeler to feel special and energized to work. The crowd, the collected unique (contradiction intended), is aroused, humming, murmuring, resonating in a productive frequency.

Chapter two: Appropriation of community

The discussed case of user participation and user generated content within Google Earth, is not a lone standing example of conflicts between providers and users. Throughout the last two decades, the idea of using *the crowd*, for a productive purpose has increasingly gained attention amongst tech-entrepreneurs and startups. At the point of writing this business strategy is on the verge of being main-stream. In 2005 Jeff Howe and Mark Robinson, editors at the tech-magazine Wired, coined the term *Crowdsourcing.* It was defined in their article "The Rise of Crowdsourcing" as following:

> Simply defined, crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call. This can take the form of peer-production (when the job is performed collaboratively), but is also often undertaken by sole individuals. The crucial prerequisite is the use of the open call format and the large network of potential laborers.[24]

Addressing the cutting of costs, outsourcing implies the moving of production and services from a richer and more demanding locations to the opposite; a location with lower wages, less restrictions and easier access to raw materials. The product is imported rather than produced to the first

23 Google, Official modeling competition description, "2012 Model Your Town Competition", SketchUp (2012), http://www.sketchup.com/intl/en/competitions/modelyourtown/
24 Jeff Howe, "Crowdsourcing: A Definition", crowdsourching.com (blog post) (2006), http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html

location.

Crowdsourcing is the step beyond outsourcing. It is freed of physical constraints. It does not rely on a physical machinery in a specialized industry, and it does not depend on proximity or concern it self with geographical location. It is a fluid shape, often intangible in physical form, yet seemingly more and more important in an economy based on exchange of information rather than traditional goods. The *personal* computer and the Internet has initiated a mode of production, where the worker gradually shifts position. From a place of physical constraint but also physical insurance, the worker moves into the position of the hired contractor, the freelancer available for hire. Of course the traditional industry is still ruling at large, especially in growing economies, by example the Chinese electronics producer Foxconn with its million assembly-line workers. Also in the US, industry has seen slight growth despite current the economic crisis. Remarkably the growth has not meant more employment in the industrial workers field. This is a direct cause of the investment in automation[25]; robotics replace the workers at the assembly line, and these become free, liberated to pursue the highly individualized goals of the creative, information based economy. This is not saying that persons are not working a full-time job anymore, but it is addressing that the *individual* is approached as an individual, who, should search for his or hers particular interest and *uniqueness*. If this cannot be accommodated in the work, then it can be fulfilled outside the working hours. The modeler, Katya Kean, might be waitressing at the moment, but not long ago she realized her dreams of *making* trough Google Earth.

Jeff Howe continually returns to the idea of *tabbing into the creative potential of individuals around the globe*:

> Crowdsourcing […] uses the network to harness individual people's spare cycles – the time and energy left over after we've fulfill our obligations to employers and family.[26]

These spare cycles he refers to is what might not be realized trough a *nine to five* job. It is the spare creativity which finds its outlet trough hobbies, off-work activities, and the liquid space in between. A former top-modeler, Jon B. writes;

> I started modeling as hobby and a way to de-stress after work. Something which grew into a bit of an obsession at one point. I spent a lot of non-work hours modeling. [27]

Jons hobby became an outlet not only for *de-stressing* but also for exposure to like-minded peers.

25 David Rotman, "How Technology Is Destroying Jobs", MIT Technology Review (2013), http://www.technologyreview.com/featuredstory/515926/how-technology-is-destroying-jobs/
26 Jeff Howe, "Crowdsourcing – How the Power of the Crowd is Driving the Future of Business", Random House Business Books (2009), p.13
27 Attachment: Email Correspondence 04, Jon B. (2014)

Not restricted by any local interests around 3D modeling, he would meet fellow modelers (online) trough the platforms which Google had established. He works in the niches of the long tail, the unknown to the many, but wholly appreciated by the few. Howe continues:

> [C]rowdsourcing is the antithesis of Fordism, the assembly-line mentality that dominated the industrial age. Crowdsourcing turns on the presumption that we are all creators – artists, scientists, architechts, and designers in any combination or order. It holds the promise to unleash the latent potential of the individual to excel at more than one vocation […] Crowdsourcing capitalizes on the deeply social nature of human species. Contrary to the foreboding, dystopian vision that the Internet serves primarily to isolate people from each other, crowdsourcing uses technology to foster unprecedented levels of collaboration and meaningful exchanges between people […] Online communities are at heart of crowdsourcing, providing a context and a structure within which the "work" takes place.[28]

The workers role is merging with the consumers, and the consumer is of course not a mere consumer, s/he is a *prosumer*. The echo of *UGC* is still bouncing off the non-tangible walls of the *open* factory. Rather than being the antithesis of Fordism, crowdsourcing is an extension of it, a natural development which has come with the Internet. The worker is no longer a slave of the assembly line, but a volunteer free to join, share, collaborate and create meaningful exchanges with other people. "Work" is no longer work but an enjoyable, personalized venture where the latent creative potential is unleashed and shared with others. By typing the word "work" with surrounding apostrophes Howe turns this rigid matter associated with boredom and repetition into an attractive state in which it loses its seriousness but still remains ambiguous. What the eager members of the 3d community are completing could be work but it could also be play. Julian Kücklich coins the term 'Playbor'[29], an abbreviation of labor and play, and an precise observation of these dynamics. It's exactly this state of "work" which appeals to businesses and corporations wanting to take advantage of the newfound cognitive source of creativity which comes with the Internet.

Community does not establish it self on its own, and people rarely want to work for free when they encounter the phenomenon in the traditional sense. For businesses it's therefore important to find a shape for whatever product they wish to have built by the crowd, which does not appear as work. It's also central to know that investments in the community is a necessity. The business owner must invest in, and provide a platform (physical servers and applications), and they must nurture the community, something which can happen trough the establishment of forums or bulletin-boards where the 'workers' can meet and discuss.

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28 Ibid. Jeff Howe, Crowdsourcing, p.14
29 Julian Kücklich, "FCJ-025 Precarious Playbour: Modders and the Digital Games industry", Fibreculture 5 (2005)

The investments will shape the community, and in optimal settings it will push the 'workers' to output a desired content. Lawrence Lessig describes the idea that 'Code is Law'[30] in the publication 'Code'. Essentially he argues that (computer) code , is law. It shapes the way we act and behave and what we output. The classic metaphor is to view code as architecture. The code is the 'house', it has entrances where we enter trough, hallways that guides us, and departments intended for a particular use. Each part encourages certain behavior; we pass trough the door rather than break down the wall. The house becomes law for our acting.

Modelers using Sketchup were free to upload any content to the 3d Warehouse they would desire; 3d renderings of cars, fridges, lamps etc. even content of offensive character is accepted. In this way no filter existed for any modeler to participate. This helped establishing the 'open', free feeling of non-work. Being free to do what ever you wanted could not be seen as work. The next stage, uploading content to Google Earth, was already a much more invested process. Modelers would construct a model and hope for it to get accepted. The laws of the platforms tightens. Several modelers explain that the review process, and acceptance criteria for having a model accepted to Google earth got more strict and efficient over the years. Andreas Eisenbarth highlight Google's attempts to harness the crowd both trough code, social nudging and elements of gamification:

> Over time, Google learned to "use" its community and began to systematically organise it, by introducing Community Managers […], competitions […], conferences […], and a community website […]. Modelers who attended [conferences] only had to pay their travel, but where provided with accomodation and food in a 4 star conference hotel.
> Google also introduced "badges" with amount of achieved models in 3D Warehouse to honor modelers and they had a special "Supermodeler" group of 50-100 selected modelers.
>
> Other changes where revised acceptance criteria. Newer acceptance criteria was supposed to make reviewing easier for Google staff and reasons for rejections more transparent to users […]. In general they were stricter to avoid an inconsistent user experience for Google Earth users […]. [31]

The community was not taken for granted, but cradled and *molded* in the interest of Google. *"Of course it was Google which steered the whole process"* Matthias Basler writes. Google established a platform which was feeding it self; modelers were rewarded symbolically, in some cases physically. The best became top and super-modelers. Superheroes. The crowd buzzed and shared with friends who also shared with their friends. The frequency of resonance reached its optimal curve, rippling throughout the niches of the long tail.

30 Lawrence Lessig, Codev2, Chapter 4 "Architectures of Control ", Chapter 5 "Regulating Code ", Basic Books (2006)
31 Ibid., Eisenbarth, email correspondence

The gray zone of turmoil

The sprawling ecosystem which was made possible by Google, was on short notice made impossible. The selling and disbanding of the platforms meant that the resonance was broken. It became impossible for modelers to pursue their hobby anymore. For modelers even to keep in contact with each other became difficult, since the internal messaging system for these also was dismembered.

Previously it was described how modelers were, unsure, frustrated or angry with Google's decision to sell SketchUp. It was exactly in this moment modelers 'woke up' realizing the extremely precarious position they found them selves in. You had the choice to passively *welcome the new overlords* or to bail out. A choice which might seem radical, but to Google meaning as little as nothing. To repeat Katya Kean, the modelers *shouldn't expect power over Google's policies as well*.

From a post Marxist perspective Tiziana Terranova introduces the idea of the society-factory; “work processes have shifted from the factory to society, thereby setting in motion a truly complex machine”[32]. Terranova engages the Internet as an example of the society-factory in motion:

> “[F]ar from being an unreal empty space, the Internet is animated by culture and technical labor trough and trough, a continuous production of value that is completely immanent to the flows of the network society at large”[33]

She continues to address the giants of the society-factory, corporations which has understood the potential of the crowds, and harnessed it properly:

> Today, in the middle of chronic financial turbulence and a general slowing down or recession of the global economy, the digital economy of the social web seems to belong to a different universe, as numbers of users increase exponentially and the profits and market value of web 2.0 giants are exceptions to the general depressing economic climate. The idea that the value of such corporations is given by users' participation has become business sense. The composition of labor producing the value of such companies shows a massive surplus of free labor as compared to a tiny percentage of actual waged labor. Furthermore, voluntary work, unpaid work, underpaid work, and a growing gap between the wealthy and everybody else have become salient features of contemporary economies at large.[34]

Finally Terranova, paints a sharp picture, in which she argues that the workers in the digital machinery, the laborers producing the value for such companies, the volunteering Google geo-modelers, are exploited.

> To the increasing exploitation clearly visible in the domain of waged digital work (decreasing

32 Tiziana Terranova ”Free Labor”, Digital Labor, Routledge (2013), p. 34
33 Ibid., Terranova, p. 34
34 Ibid., Terranova, p. 52

> autonomy and falling wages for increasing productivity), we have to add, then, a new kind of exploitation – that which concerns the immaterial commons of culture and technical production. […] It implies a privatization of the wealth produced by free labor that takes the shape of an impoverishment of potential users' appropriation of the fruits of such labor. This impoverishment can be understood in terms of the unilateral appropriation and hence accumulation of the wealth generated by users' interactions […] but also in the actual quality of the participation to the digital economy constrained by the control unilaterally exercised by web giants on the technical configurations of social networking platforms. As the mechanisms of such expropriation are clearly embedded within forms of fictionalization that impoverish society as a whole, asking for liberation of free labor means asking for two things: that such profits be returned to those who actually produce them – that is, to living labor – and that social networking platforms should be deprivatized – that is, that ownership of users' data should be returned to their rightful owners as the freedom to access and modify the protocols and diagrams that structure their participation […] As the wealth generated by free labor is social, so should be the mode of its return[35]

Following Terronovas argument, the modelers have been left at their own devices, in a situation where they cannot appropriate the fruits of their hard labor anymore. Though the modeler might have the right to his or her own creations, while also having them locally stored on a digital drive, the essence of the platforms, the community and the social exchanges, has been deflated. *The participatory nature of the Internet*[36] has been made impossible.

The gift bundle, mentioned in the introduction, was sent to the top-modelers of Google Earth. It is a physical manifestation of *good will* shown by Google towards the elite of their volunteers. In any legal terms it was not necessary, since all modelers were volunteering. The 'Thank You'-postcard found in the bundle reads:

> You've proven yourself to be one of the top modelers in the world, contributing at least one hundred models to Google Earth. Please accept this gift as a symbol of our gratitude for all your hard work.[37]

What strikes the most is the choice of addressing the modelers “work” as *hard work.* The fine line between “work” and work has been clearly been crossed. Following Terronovas rhetoric the modelers are workers (without knowing), freely giving away their labor to a system which accumulates everything. That is, until it decides to sell the accumulated, dismantle, and find another more efficient source of labor.

Despite the Google workers are suppressed and exploited, hardly any resistance is evident. When interviewing modelers, slightly more than half are, if not extremely positive, then positive towards Google. Even the 'selfies' modelers post to the official forums holding up the Google-mug, are

35 Ibid., Terranova, p. 53
36 Maggie Jackson, "AOL Volunteers Claim Exploitation", Associated Press (1999), http://www.apnewsarchive.com/1999/AOL-Volunteers-Claim-Exploitation/id-2a5f7b2fbaa68ee2e71d580f8a2b8b6c
37 Attachment: Illustration, David, Marcos, ”Google Thank You Postcard” (2012), https://plus.google.com/103396263822083620814/posts/VpNBb5bTLQp

being uploaded despite the offensive and patronizing tone of the postcard. Maybe there is more to the argument of exploitation, a level Terronova does not touch entirely upon. Are the modelers working in a bubble of autonomy and artistry, an illusion which bursts and clashes with Googles nature as business? Or is there any reality to the mindset of the modeler: *We used Google* and maybe Google used us? Consider the statements of modelers Victor Parada and Joseph Jasper in the following:

> When Google announce[d] it's plan, it was very frustrating. I was thinking about a small business with this technology in the local market, so I immediately quit the idea. […] They [Google] got almost unlimited help to create the 3D representation of our world for the price of some mugs. […] [N]obody forced me to create 3D models... I guess I did those just to increase my own ego. Of course, if Google contact me to hire me, I would accept ;-)[38]

> […] It's kind of funny, but my initial thought was along the lines of "I already gave them over 320 models and hundreds of hours of work for free," but then I realized that in fact, they've given my Sketchup and the 3D Warehouse for free also.[39]

Opinions like those above prevail throughout my talks with modelers. There is a continued trust in Google, users get free software and does 3d modeling for their own ego in *exchange* for handing over their content to a closed platform with an uncertain future. This exchange happens in a relationship which can be seen a biased towards Google, since they held the power to accumulate and shaped the conditions of the platforms. On the other hand, modelers were needed to the platform. Google needed its users, and it invested a great deal of resources and time in these. It developed a series of software, released as freeware, and appropriated for a vast arrays of purposes. It gave space for a community and created a system in which the individual could roam freely without being *forced* to "work". Should a volunteer expect more? And is the *social wealth* Terronova addresses not already payed back simultaneously while using the platforms? *Technology is to blame,* not the company actually developing the technology. Marxists would call this the users *false consciousness*. Volunteers actively defend Googles decision, a decision which rendered their own work and existence as volunteers obsolete. The question of exploitation becomes a gray zone, and if clever you work the gradients between black and white. Google has established a culture where it, by large, can shape users to own needs. It can bend them to the extreme, even break them, since losing a few members of the expanding crowd would do no difference.

The role of the provider, becomes increasingly important and powerful. In a closed circuit Google provides *free*, *easy* tools which lets the *you connect to the world*, it creates obsessive SketchUp-

38 Attachment: Email Correspondence 05, Victor Parada (2014)
39 Attachment: Email Correspondence 06, Joseph Jasper (2014)

addicts[40], hopeless without Googles guiding. A hopelessness that has is based upon the technical close sourced structures and the "Laissez-faire"-user-attitude promoted by Google. I, for one, welcome our new Google Overlords.

40 Attachment: Email Correspondence 07, Beryl Reid (2014)

List Of References

Attachments

Email Correspondence 01, Andreas Eisenbarth (2014)

Email Correspondence 07, Beryl Reid (2014)

Email Correspondence 05, Victor Parada (2014)

Email Correspondence 06, Joseph Jasper (2014)

Email Correspondence 04, Jon B. (2014)

Email Correspondence 03, Katya Kean (2014)

Email Correspondence 02, Matthias Basler (2014)

Illustration, David, Marcos, ”Google Thank You Postcard” (2012),
https://plus.google.com/103396263822083620814/posts/VpNBb5bTLQp

Literature/Articles

Howe, J., “Crowdsourcing – How the Power of the Crowd is Driving the Future of Business”, Random House Business Books (2009), p.13

Howe, J., ”Crowdsourcing: A Definition”, crowdsourching.com (blog post) (2006),
http://crowdsourcing.typepad.com/cs/2006/06/crowdsourcing_a.html

Jackson, M., "AOL Volunteers Claim Exploitation", Associated Press (1999), http://www.apnewsarchive.com/1999/AOL-Volunteers-Claim-Exploitation/id-2a5f7b2fbaa68ee2e71d580f8a2b8b6c

Kücklich, J., “FCJ-025 Precarious Playbour: Modders and the Digital Games industry”, Fibreculture 5 (2005)

Lessig, L., Codev2, Chapter 4 ”Architectures of Control ”, Chapter 5 ”Regulating Code ”, Basic Books (2006)

Rotman, D., ”How Technology Is Destroying Jobs”, MIT Technology Review (2013),
http://www.technologyreview.com/featuredstory/515926/how-technology-is-destroying-jobs/

Terranova, T., ”Free Labor”, Digital Labor, Routledge (2013)

Online References

Chopra, A., ”2011 EMEA Google Geo Users Summit - Keynote: Aidan Chopra”, GoogleGeoCommunity (video) (2013)
http://www.youtube.com/watch?v=xVacZfQPOt0

Google, Martin, J., ”A new home for @Last Software”, Google Official Blog (2006), http://googleblog.blogspot.nl/2006/03/new-home-for-last-software.html

Google, Official modeling competition description, ”2012 Model Your Town Competition”, SketchUp (2012),
http://www.sketchup.com/intl/en/competitions/modelyourtown/

Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Google Craig (user/Google moderator), ”User generated 3D model pipeline has been retired October 1st, 2013”, (2013), https://groups.google.com/forum/#!topic/3dwh/epXUQA2bJ2s[1-25-false]

Google, Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Richard Pedicini (user), ”The Next Dimension of Google Maps - Official Post”, (2012), https://groups.google.com/forum/#!topic/3dwh/-GQj7OlZshA%5B1-25-false%5D

Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", https://groups.google.com/forum/#!topic/3dwh/

Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Various fragments, (2013),
https://groups.google.com/forum/#!topic/3dwh/C168LKLRGVo

Google, Google Groups (Forum): "3D Modeling for Google Earth & Maps", Douglas Willett (user), ”Google Gift”, (2013), https://groups.google.com/forum/#!searchin/3dwh/gift/3dwh/bM0x5A0SsOQ/ki36CrKoTrEJ

Know Your Meme (Article Entry), ”I, For One, Welcome Our New Insect Overlords”, Know Your Meme (2010), http://knowyourmeme.com/memes/i-for-one-welcome-our-new-insect-overlords

SketchUp 3D Warehouse, Trimble (2014), http://www.sketchup.com/products/3D-warehouse

SketchUp, Bacus, J., ”A new home for SketchUp ”, Sketchupdate (2012), http://sketchupdate.blogspot.nl/2012/04/new-home-for-sketchup.html

SketchUp Guide (Unofficial), ”Tips for modelling buildings for Google Earth”, SketchUp Sage (2008 -), https://sites.google.com/site/sketchupsage/google-earth#TOC-Tips-for-modelling-buildings-for-Go

SketchUp Model 01, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=6df08224cb44891c59c6798f507981a6&prevstart=12

SketchUp Model 02, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=da0aa4b23537f20bf5d923b073c2fb6c&prevstart=0

SketchUp Model 03, SketchUp 3D Warehouse, Trimble (2014), http://sketchup.google.com/3dwarehouse/details?mid=6e7613602dc763f88c398d1ef4195d00&prevstart=0

Stray Kat Studio, Facebook page (2010 -), https://www.facebook.com/straykatstudio

Trimble, Official Website (2014), http://www.trimble.com/