Innovating Democracy by Democratizing Innovation

- A critical review of how the multitude of productive resistance in global
economy produces a paradigmatic tendency towards innovating democracy
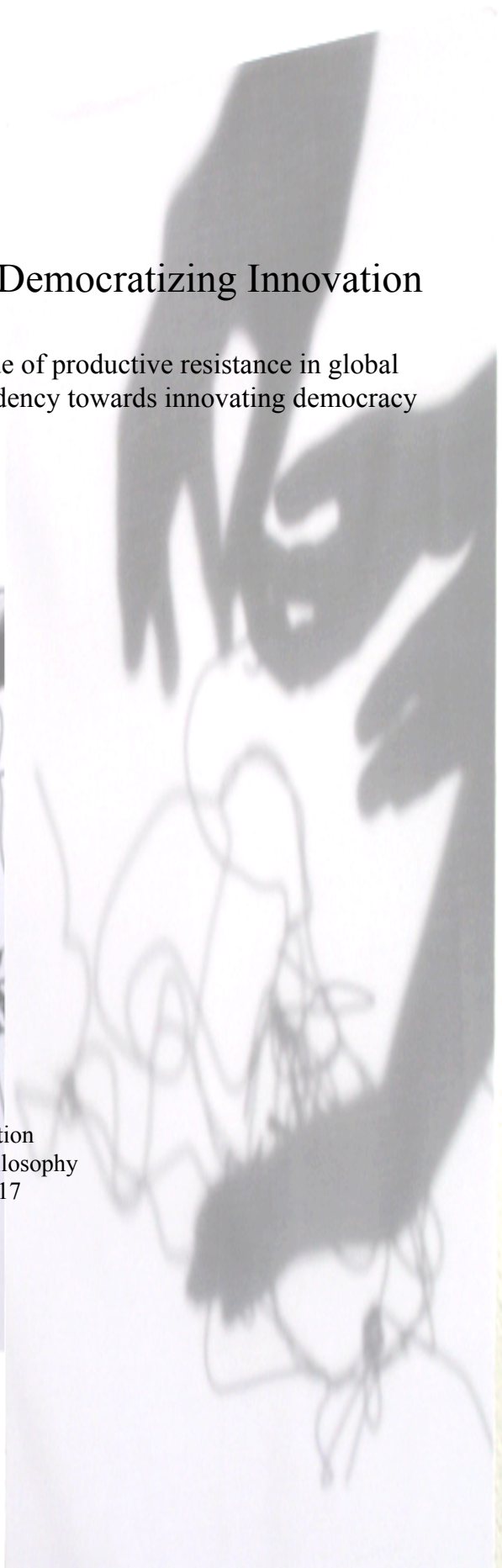
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Louise Aagaard Pogager

1 Content

2 Abstract

For more than the past half a century innovation has been equated with economic development. In reference to the concept of Democratizing Innovation, there seem to be no difference as it is portrayed in terms of user increasingly becoming producers and as a disruptive force within economy also signifying a business potential to be utilized in order to gain new business advantage. We do not propose these observations to be mistaken merely, we think a crucial potential has been overlooked, that in fact Democratizing Innovation as well as a democratizing of innovation, pose as a potential towards innovating democracy by forming as a multitude of resistance in global economy and the age of Empire. Thus we commence by a political conceptualization of Democratizing Innovation, proving that values and conventions from political theory can be seen present in communities of Democratizing Innovation. Thus establishing Democratizing Innovation as a multitude of resistance. Furthermore we develop and understanding of innovation per se proving the common conception of innovation reduced to economic development is not wrong but to some extend misguided. By way of this we re-establish innovation as a concept which incontrovertibly stands alone as a potential, why we are able to rerouting the conceptual hybridization of Democratizing Innovation to 'work both ways'. Finally in an analytical discussion of Democratizing Innovation in the age of Empire we are able to address how Democratizing Innovation appears as a paradigmatic potential towards (a new) democracy.

Keywords: *Democratizing Innovation, innovation, democracy, innovation communities, politics, Res Publica, multitude, immaterial production, globalization, global economy, Empire.*

3   Preface

> "Soaring flows of data and information now generate more economic value than the global goods trade. Conventional wisdom says that globalization has stalled. But although the global goods trade has flattened and cross-border capital flows have declined sharply since 2008, globalization is not heading into reverse. Rather, it is entering a new phase … [of] … *Digital globalization: The new era of global flows*."[1]

This opening statement of the 2016 Report from McKinsey Global Institute, states that globalization is upon us, however shifting towards a new formation. Therein also lies our suspicion of (a new) formation of Democratizing Innovation. The Age of Information and the development of the Internet has changed the world, as it has enabled both the widespread distribution of information and individuals' collaboration and interaction without regards for physical location.[2] In other words production is increasingly becoming global and immaterial.

During the past three hundred years economy and productivity has gone trough rapid development. The development was ignited by the industrial revolution of the late 1700s and early 1800s, in which mechanisation of agriculture and textile production led to the era of industrialization. The Age of Information, which followed industrialization, was born in theory in the mid 1900s by C. E. Shannon in his article *A Mathematical Theory of Communication*[3]. In the article he introduced how information can be transmitted through 0's and 1's[4]. The Age of Information paved the grounds for the vast exchange of communication and knowledge we have experienced since the introduction and commercialization of the Internet in the late 1970s and early 1980s.[5] As such during the past three centuries, economy has advanced through three paradigms.

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[1] Manyika, J. Et. Al. (2016)
[2] Leiner, et. Al. (1999)
[3] Shannon (1948)
[4] Collins (2002)
[5] Leiner, et. Al. (1999)

"It has now become common to view the succession of economic paradigms since the Middle Ages in three distinct moments, (…) The dominant position has thus passed from primary to secondary to tertiary production. Economic *modernization* involves the passage from the first paradigm to the second, from the dominance of agriculture to that of industry. Modernization means industrialization. We might call the passage from the second paradigm to the third, from the domination of industry to that of services and information, a process of economic *postmodernization*, or better, *informatization*."[6]

In other words this development of economic paradigms speaks right into our assumption that globalization is upon us, in a new age of increasingly immaterial production due to the commercialization of the Internet. As such the latest economic paradigm has permitted unlimited and faster communication and interaction, access to vast amounts of information, and the break down of national, timely and physical barriers as network communities can form virtually. Consequently the paradigm of informatization and the age of information has changed the conditions of production and brought both economic and social challenges. From an economic perspective one of the challenges of the new paradigm is the pace and unpredictability of change and in consequence the demand for creative adaptation to change. Examples of this conviction can be found in change management literature:

"It has become almost a truism to assert that we live in an age of unprecedented change and transformation, in which the rapidity and irreversibility of such changes are said to be fundamentally affecting every aspect of modern life. It has also become a major preoccupation amongst management and organizational theorists alike to point out that organizations are increasingly finding themselves under constant pressure to creatively adapt and respond to such changes…"[7]

However, the claim of rapid change is not only limited to managerial and theoretical challenges. The speed with which information, communication and knowledge spread has arguably brought about a highly volatile business environment. Indeed the need to be at the forefront of

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[6] Hardt & Negri (2000) p. 280
[7] Chia (1999) p. 209

innovation is a necessity to secure a sustainable competitive advantage. As is explained by McGrath, in order to survive the organization must catch each wave of advantage in a transient advantage economy.[8]

> The era of sustainable competitive advantage is over, and companies are going to have to learn how to survive and thrive in a new environment where competitive advantage will increasingly come and go in temporary waves. The firms that are most likely to succeed in this new context will be those that can catch each wave of advantage early, exploit it to the fullest and then shift to the next one before the current one dissipates.[9]

To accommodate an increasingly unpredictable business environment during the latest paradigm of *informatization*, managerial and theoretical focus has been concerned with performativity. The objective being: how to optimize individual productivity and performance. This has fore instance created business models where employees are invited to bring their private selves to work in the hopes of facilitating a more productive entrepreneurial and hence creative business environment.[10] Consequently in order to habituate to the increasingly transitive business environment managerial theories and common business practice has, amongst other strategies, moved toward blurring the lines between business and private life. The goal being an increase in productivity and creative problem solving by bringing the whole person to work, through encouraging the "human 'selves' … to express their inner potentialities."[11] As follows, during the past few decades common business practice has moved towards eroding and breaking down the traditional borders of the organization in order to utilizing resources hitherto placed beyond the limits of the organization. This 'new' trend of deploying outside resources, however, is not restricted to employees, individuals and human resources. Also ideas has become a sought after resource which organizations look for elsewhere and beyond R&D departments, costumer relations and sales feedback. To a greater and greater extend ideas and innovations have become a commodity organizations look to create and look for outside the boundaries of the organization in more or less organized manners. This habit is

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[8] McGrath (2013) p. 17
[9] McGrath (2013) p. 17
[10] Costea et. Al. (2008) pp. 667-670
[11] Costea et. Al. (2008) p. 662

enlisted out of the logic spoken by cofounder of Sun Microsystems, Bill Joy "No matter who you are … most of the smartest people work for someone else."[12] Hence: the best ideas may well be created by someone who is not on the organization's payroll. However, this does not automatically mean that the organization is denied access. Rather the outcome has been, that during the past decades new ways of boosting creativity and innovation has come to light. To give some examples of new innovation schemes, in this contexts schemes such as co-creation,[13] design thinking, [14]open innovation,[15] open source software and communities,[16] user driven innovation,[17] crowdsourcing,[18] and Wikinomics[19] are worth mentioning. Common to all are the objective to convey hitherto unused outside ideas into the organizations in the attempt to furnish the organisations with the forward thinking and the ideas necessary to ensure contemporary competitive advantage in a highly volatile marked. The hypothesis being that by engaging the outside, organizations may acquire more progressive innovations corresponding to latest customer demand, *faster*. Subsequently the organizations may be enabled to be the *first* to catch the temporary wave - *the* advantage guaranteeing success according to McGrath.[20] A second basic observation of these new design schemes is the part that the Internet plays in relation to new innovation methods and schemes both in regard to reach and existence. The commercialization of the Internet some four decades ago has played a great part in facilitating the evolution of new innovation schemes.

The consequence of the *Digitial Globalization,* seems to be not only influencing the flow of data as stated by McKinsey Global Institute, but also the concept of innovation and how organizations go about organizing innovation. It appears that innovation is no longer a matter of the few, nor is it situated a certain place. Rather it seems that innovation has become a matter of the many and not bound to the organization. Because, as well as the boundaries between the person and the employee, the organization and the surroundings has been blurred, likewise research on Democratizing Innovation specifically regards the dispersing lines between the user and the producer. As such there appears to be an unspoken organizational as well as an

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[12] Howe (2008) pp.10-11
[13] Degnegaard (2014) Lopdrup-Hjorth, (2013)
[14] Degnegaard (2014) Brown (2008)
[15] Marjanovic (2012) Chesbrough (2007)
[16] Chesbrough (2007)
[17] Mahr & Lievens (2011)
[18] Marjanovic (2012) Howe (2008)
[19] Tapscott, D. and Williams, A. D., (2007)
[20] McGrath (2013) p. 17

individual consensus of acknowledging and accepting the emergence of the concept of *democratizing innovation.*

It seems genuinely that innovation has become democratized in a way which entails that creation of the new is not bestowed on the few i.e. R&D divisions of leading corporations. Likewise when looking at the new models of innovation and entrepreneurship for instance: Sharing economy, where known examples are organizations such as; Über and AirBnB, Open Source and Wikinomics which can be exemplified by YouTube, Wikipedia and FaceBook; Crowdsourcing which can be depicted by ventures like iStockphoto and InnoCentive, all of which in some way or an other utilize users contribution in the creative process. There can be no doubt that this "new" trend or tendency, of leaving innovation open to common and for the common to engage in as individual creators and entrepreneurs, has spread like wild fire. That innovation has become democratized has created opportunities widely and beyond what anyone could have imagined some 40 years ago, when scholars first began theorizing and articulating research on the phenomenon of Democratizing Innovation. Furthermore it seems that 'the crowd'[21] and people in general are eager to participate and embrace the opportunity to engage in 'the new'. In so doing networks and communities of innovation are brought to life. Thus one must linger upon the thought that, in fact 'Democratizing innovation' might denote a paradigmatic newness – a though which has in fact been conceived previously by academia in regard to open source.

> "The era of open innovation has just begun. A major shift has started toward a new paradigm in the sense of Kuhn."[22]

However as we perceive it, this newness in not only a novel way of going about creating something, but Democratizing Innovation, also denotes a newness of how crowds organize and communities are created in times of digital globalization, where geographical location and nationality and citizenship are becoming secondary if not irrelevant personal qualities. This leads us to suspect that the common way of addressing innovation is an example of how economy forcefully reduces how we perceive concepts such as Democratizing Innovation.

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[21] 'the crowd' or 'the billion' denotes the group of people connected to the internet and thus the number of people who has got the potential to act as a part of what is described as the 'crowd intelligence'. The crowd intelligence is the source of the new ideas.
[22] Gassmann et al. (2010) p. 214

Not that we find it to be incontestably wrong that innovation relates to economy. Rather we find that this relation during the past decades has been overemphasized to the extend of misguidance subsequently overlooking innovations other potentials. Hence we propose a conceptualization of Democratizing Innovation in a political perspective as a new paradigmatic tendency towards the configuration of (a new) democracy. Based on these observations, that Democratizing Innovation might denote a new paradigm of organizing social subjects. This thesis attempts a critique of Democratizing Innovation by a political conceptualization. Bringing to light the values and conventions at stake in the concept of Democratizing innovation as they are presented in political theory. This critique is given in order to establish Democratizing Innovation as a multitude of productive resistance, which enables us to address and discuss Democratizing Innovation as paradigmatic shift towards (a new) democracy in relation to the totalitarian prospects of global economy and the regime of Empire developed by Hardt & Negri. Thus we reach the point where we are able to form our research question.

3.1 Research Question:

How does Democratizing Innovation (as we understand it in a reading of Hippel and Howe) analyzed and politically re-constructed through a reading of *The human condition* and *The Fall of Public Man*, appear as a multitude of productive resistance entailing a paradigmatic tendency towards (a new) democracy in global economy and the regime of Empire?

4 Methodology

What is methodology generally speaking? Well that depends on the scientific school, field or direction. But usually when one addresses the subject of methodology the first thing that comes to mind is qualitative or quantitative. However – the question of qualitative or quantitative – relates to the outlining and immediate establishment of the research objet. As such it first appears as an empirical question, regarding what to consider empiric. However instantaneously this can be reversed seeing that theory may call upon the empirical and as such impose limitations on the empirical material in regard to the choice between quality and quantity. Regardless methodology is required in order to backtrack and verify or falsify the hy-

pothesis of a given work. Thus we proceed declaring the subject matter scaffolding the current work is entirely literary, as such the analysis and discussion is based on a reproduction of the subjective performance given by primarily von Hippel and Howe respectively in *Democratizing Innovation* by and *Crowdsourcing, why the power of the crowd is driving the future of business*. As such we work qualitatively however much of the material gathered from Hippel and to some extend Howe is in fact originally constructed on quantitative studies. But before an actual methodological problematization of the empirical literature we will turn to the epistemological direction and the theoretical foundation of this work.

4.1   Epistemological direction

We are concerned with creating truth. However the truth we seek is not construed by positivistic principles. Basically we are investigating how a phenomenon appears, thus at first glance we operate within the regime of phenomenology. However as we cannot perceive of any object without perceiving through knowledge already acquired hermeneutics comes into place. Because hermeneutics means that no object can be seen and understood regardless of all previous knowledge. Furthermore any representation by a second part must be assumed represented on the scaffolds of a knowledge as well. As such suffering the same (however different) fundamental limitations as the first part. Thus entailing that an observation of an observation is limited in a double sense by the limits of knowledge in both the first and second representation. However as the present undertaking is made possible by constructing mirror images of other concepts and conceptualizations, thus constructing a certain perspective. Indirectly we acknowledge that certain perspectives make up certain truths, hence we draw from the epistemological regime of social constructivism. Finally we aim to give a critique of a contemporary phenomenon, questioning the common perception proposing a different. Thus we move towards and settle on the epistemological regime of critical theory, as critical theory aim towards "critically dispute social realities [and] … is some times referred to as critical hermeneutics."[23] Furthermore critical theory presents having an emancipatory interest in knowledge, which seems to fit our agenda. However according to Alvesson "critical theory do

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[23] Alvesson (2009) p. 144

not lend themselves easily to being used in empirical undertakings"[24] Undiscouraged we embark on our quest simply by assuming the critical theories to be true and thus construct our investigation on these premises and with the intention to uncover how Democratizing Innovation appear under these conditions. This initial lay out of our epistemological direction aside we continue by introducing and justifying our theoretical foundation.

4.2 Theory

This thesis build on four major works of critical theory, *Empire, Multitude, The Fall of Public Man* and *The Human Condition,* however Arendt in The Human Condition does not produce critical theory in conventional terms, but rather gives a critique of modernity.[25] As all these works are of considerable magnitude, our product obviously does not build on the full extend of their theoretical build up but is limited to experts. Why we also for methodological reasons have supplied all citations, even paraphrasing, with page references even though some citation manuals allow to referring to only author and year when paraphrasing. We do this to make sure the reader is able to find the exact references also when it concerns paraphrases. This however also means that the theoretical developments in the respective books may evolve from the developments we choose to use, cite and paraphrase. However we chose to limit our understanding to the representations given in the following paragraphs in spite the fact that they may be problematized and prove different by the full extend of the theory we use. Furthermore in regard to the references, some authors use bracket (…) when writing. Thus to avoid any confusion concerning who is writing when we quote and reproducing a quote directly in the text and feel the need to add a word into the quote we use square […] brackets, but square bracket will only appear in quotes (otherwise we will use regular brackets) and the words added to the quotes will of cause not be altering the essential meaning of the quote merely ensuring a reader friendly flow in the message conveyed. Thus we commence introducing the theory in paragraph bundled by authors.

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[24] Alvesson (2009) p. 145
[25] Filosofisk Leksikon - Arendt

4.2.1 Hardt & Negri

We use to works of Hardt & Negri namely *Empire,* and *Multitude.* The latter appears as a means to develop and perceive the concept of Democratizing Innovation as a multitude as we, which we will come to know, perceive the immense growth of global networks of creative communities to form rhizomatically and inherently build on and utilize individual difference in the creative process comparable to that of multitude. As such it seems reasonable to gather a conceptual basis for our understanding from the conceptualization of the multitude. However we acknowledge the multitude true to the theory is not a unity. Thus to talk of a groupings like communities of Democratizing Innovation pose a theoretical problem, we deem it possible to conceive of Democratizing Innovation in terms of multitude, because as we will learn later communities of Democratizing Innovation in many cases does not appear to have (clear) boundaries as such. Why we believe to be able to arguably make plausible that Democratizing Innovation form and structure as multitude. The *Empire* on the other hand we use in a different way mentioned previously. In short we pre-assume the validity of the argument of *Empire* and as such build the entire case on assuming *Empire* to be true. The reason for this is that *Empire*, which was written in 2000, with disturbingly accuracy seem to depict the actions taken post 9/11 2001, and the attack on World Trade Center, when they describe Empire as a regime enforcing a state of exception.[26] Moreover they develop an understanding of globalization, economy and national power, which seem to have merit and more importantly give wind to our critique. Though arguably the above reasoning falls within a syllogism: Empire depicts and forewarns the state of exception similar to post 9/11, 9/11 however tragic is true, ergo Empire is true, thus we step in a logical fallacy even before we begin. Regardless we commence, noticing that the following argumentation is weakened, by building on Empire as indisputable truth, however letting it be up to others to prove our argument insubstantial by disproving the contemporary relevance of *Empire*.

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[26] Hardt & Negri (2000) p. 38

4.2.2 Sennett

Also *Fall of pubic man* by Sennett we assume as a valid example of the contemporary prior to our analysis. Even despite seemingly old as it was conceived in 1974 in *Fall of Public Man*, Sennett seems in resent years to be right on top of things, when depicting a decay of the public due to an over emphasized and irrational focus in the individual and psychic caused by a reduction and measure of the world according to the single persons emotions and self-understanding.[27] We see this exemplified by organizations attempt to bring the whole person to the workplace. As such not only merit is essential but also personal traits, which used to belong to the private realm, are brought into the public in terms of the workplace. And furthermore one can only imagine what Sennett would have to say about FaceBook, MySpace and other social media sites of the kind, where people bring their private selves into the public eye and scrutiny. We have though to notice that by acclaiming Sennett's argument's validity on this basis we make the same fallacy once again, but will answer with the same justification, that as long as Sennett's argument is not disproved we assume our augmentation to be intact. Theoretically *Fall of Public Man* also fall within critical theory, however the use of the conceptual framework in our work differs from both *the Multitude* and *Empire*, though we seek to outline a conceptual understanding of Democratizing Innovation by way of *Res Publica,* which we derive from *Fall of Public Man,* we do this by way of negation. However not by disproving Sennett but by arguing that the tendencies he observes and depict does not apply to Democratizing Innovation. As such we assume the position of Sennett by a negation.

4.2.3 Arendt

Arendt does in fact *not* belong to the epistemological direction of critical theory, but is more to be considered the maverick of political theory and philosophy proving highly idiosyncratic in her manner of style. However as she with *The Human Condition,* attempts a critical blow on modernity by a critique of modern society in favour of an obvious inclination towards the past city-states of Athens[28] though her message is not that straight forward, we take the liberty to address the work as a critical theory. However, re-developing her argument nor her episte-

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[27] Sennett (1974) pp. 3-4
[28] Canovan, in Arendt (1998) pp. vi-vii

mological direction in philosophy is not our agenda, rather as Arendt prove to be a relatively unconventional thinker within political theory and moreover develops a conceptual political framework in *The Human Condition* which seems to be able to illustrate the structuring structures inherent to the creative communities of Democratizing Innovation, it seems to be appropriate to operationalize Arendt's conceptual framework creating a conceptual imagery in which we are able to get insight into Democratizing Innovation. Hence we make a political conceptualization where we understand the communities of Democratizing Innovation as structured by structures comparable to those of a political realm. As such we are full aware that this part of the analysis build in an elaborate construction entirely determined by Arendt's concepts and as such if we had chosen another theory our findings would no doubt have been different. However as Arendt's framework debate political groupings of peers and concepts as freedom, equality and speech amongst other concept, which are to some extend the words with which Democratizing Innovation is described in the literature on Democratizing Innovation, Arendt seems to be a logical choice. Nonetheless though we attempt a political conceptualization we will refrain from establishing Democratizing Innovation as a political body or any other body for that matter, because unity in terms of a body conflict with our later development of the multitude. That aside we will aim towards building an elaborate conceptual mix, why we are not withstanding that one could ague our present work forms a critical bricolage, as bricolage means "construction or creation from a diverse range of available things."[29] Which leads us to a last reflexion on how we use the theory; we do not claim as such to invent anything, rather as an act of bricolage we aim to assemble what is already known in a new way thus conveying a new perspective.

Having elaborated on our reasoning in regard to the theoretical foundation of the hypothesis we move on to our methodological concerns regarding the empirical foundation of the following argument.

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[29] Oxford Living Dictionaries, *definition/bricolage*

4.3   Literature as empiric premise

This thesis is build primarily on the description of the concept of Democratizing Innovation, captured and reproduced from readings of *Democratizing Innovation* by Eric Von Hippel and *Crowdsourcing – why the power of the crowd is driving the future of business* by Jeff Howe(in the following referred to as *Crowdsourcing)*. Only few examples gathered from supplementing articles and books appear in the analysis. The reason that Hippel and Howe are exalted to spokespersons on the subject of Democratizing Innovation is, that though Democratizing Innovation seems to be a concept, which is here to stay, seeing that it has grown immensely during the past decade, as a concept it is still very openly defined. As such Hippel in 2004 defines it like this: "When researchers say that innovation is being democratized, we mean that users of products and services – both firms and individual consumers – are increasingly able to innovate for themselves." [30] In Crowsourcing Howe only makes references to Democratizing Innovation, however he talks about democratizing the means of production, as the key to democratizing innovation. As such, Howe, by focussing on the blurring lines between producers and consumers[31], talks within the definition given by Hippel and as such we allow including examples from his narrative. However though Hippel's definition allow for including more writings, to include more author seems to muddle the waters. Because other authors, though addressing topics relating to or even included in Hippels definition of Democratizing Innovation, their contribution does not aim towards giving more detailed definitions on Democratizing Innovation, rather many other authors refers back to Eric von Hippel while addressing relating and more narrowly defined topics.[32] Thus representing Democratizing Innovation per se we find Hippel's narrative in *Democratizing Innovation* best suited and secondarily we use Howe's narrative to support qua his case examples on creative communities in *Crowsourcing*. A second reason for making this limitation in the literature is caused by Han's observation in *The Transparency Society:* that more information does not necessarily entail better decisions,[33] hence in regards to adding more literature at some point one does not get any wiser merely confused. In fact we tend to agree with the notion that the human language holds a fundamental intransparency, because though we may use the same words the

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[30] Hippel (2005B), p. 64
[31] Howe (2008) p. 71
[32] Chesbrough (2007) Gassmann (2010) Howe (2008) Lopdrup-Hjort (2013) West (2003) West & Lakhani (2008)
[33] Han (2012) p. 4

meaning we ascribe these words may slightly differ. Whereas a transparent language would be reduced to mechanical information, and thus prove to be emptied out of human meaning.[34] By which we mean to convey, that bringing more literary figures into the analysis might not create more enlightenment but rather confuse and obscure the message. Since the wordings and meanings of other authors might differ in spite that many seem to refer back to especially Hippel. Thus we stand our ground and insist on build our argument as a sort of qualitative conversation or interview with Hippel and Howe the two literary figures of our choosing.

4.3.1 Analytical reflexive, filtering, framing or layering

In the attempt to justify literature as the empirical voice with whom we discuss, we cannot overlook the fact that any such discussion, no matter how near to the original it aims to be, always must be considered to be a reproduction of a reproduction of a reproduction, as Hippel made an observation of how the creative communities represents themselves, which he reproduced, and which is reproduced as an object in this work, only to be subjected to an other reproduction in the analysis. As such Democratizing Innovation in this work will undergo triple hermeneutics, as double hermeneutics concerns the interpretation of interpreting subjects[35] (Hippel observing users innovate) and the triple layer is the interpretation of Hippels interpretation. And according to Alvesson, as we re-produce Democratizing Innovation via a theoretical framework this might even be considered *quadri-hermeneutic*.[36] But to be clear, what we call all this interpretative manoeuvring is less important than the acknowledgement that every interpretation is a sort of arrangement, which will produce some truth, but truthfully always must be considered to be a reduction of the actual matter at hand. The point is by using literature as opposed to compiling data through surveys and interviews, another (in this case Hippel's and Howe's) reflexive filtering, framing or layer, besides the ones added in this work, is added to the empirical material used. However acknowledging this and as we will try to openly lay out how we are indeed framing our object and to at least some extend make our filtering as transparent as possible. We believe able to produce some knowledge. Nonetheless as we unavoidably also are subject to our subjectivity thus to some extend we must be considered blind to our own framing.

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[34] Han (2012) p. 2
[35] Alvesson (2009) p. 271
[36] Alvesson (2009) p. 271

4.3.2 The constitutions of the literature

Both *Democratizing Innovation* and *Crowdsourcing* are written in a genre, which is highly anecdotal, though Democratizing Innovation is clearly also statistically grounded and based on scientific case studies. Nonetheless the argumentation in both books used as empirical foundation is developed by what one could call storytelling. The argument is build and made plausible by innumerable small illustrations in the form of stories about creative communities. Scientifically speaking this makes for a weak analysis, because cases in the form of anecdotes are hard to verify. To accommodate this weakness we have limited the use of cases in the analysis to a very few, which moreover reappear during the analysis. Furthermore some of the cases we have been able to develop further as we found additional information pertaining to the cases available on the Internet. The objective for limiting the cases is to attempt a stronger analysis trough a more in dept analysis of the cases in play as opposed to an analysis of a wider scope but possibly also more superficial. Consequently, though we build our augment on what would be considered weak empirical material, we believe we trough some conscious choices to some extend have accommodated the weakness and, thus we believe we are able make a plausible argument.

4.3.3 Empirical subjection to cultural contingency

By cultural contingency we mean the fact that culture indisputably frame and direct how we act, perceive and no less how we convey and thus reproduce the world around us. Hence another opposition to the literature is the fact that both authors are of American origin; for one thing this means an American terminology. Comparing to European literature in the same field the term Social Innovation is the dominating term used on the subject on production and innovation originating form creative communities. Hence we cannot refuse that the findings on Democratizing Innovation does not subject to cultural contingency, because we must assume it likely that the way and willingness to share and collaborate vary globally. However since many of the examples in the books and followingly reproduced in the current thesis, are in fact global communities we believe in spite of cultural contingency to be able to build a plausible argument. Nonetheless we cannot evade the possibility that had we used literature

solely on Social Innovation our findings might have been different. We do not perceive this to undermine our augmentation due to our theoretical bricolage an investigation of Social Innovation would not necessarily prove to be more true only different, thus we proceed regardlessly, while noticing the presence of this possibility.

Another effect of cultural contingency is in fact *our* cultural embedded-ness. As a matter of fact while producing this thesis we cannot deny that the findings presented may be biased by our cultural situated-ness. Or in other words, as we have brushed upon numerous times earlier, we must inevitably consider ourselves to be subject to our prior knowledge as understood in hermeneutic terms. However, limiting the empirical basis and aiming towards building and understanding through a theoretical lens we believe our chances of creating knowledge is as good as any one else, initially if nothing else.

Thus having tried to cover all methodological bases, the real work, in regard to a critical review of Democratizing Innovation commence. Showing how Democratizing Innovation appears as a multitude of productive resistance entailing a paradigmatic tendency towards (a new) democracy in global economy and the regime of Empire.

5   Sketching Democratizing innovation

In the following paragraph we will outline the concept of *Democratizing Innovation.* The outlining of the concept of Democratizing Innovation will firstly introduce some general observations on the concept as an area of scientific research into the concept of innovation. Secondly, how the concept on one hand plays into the single persons possibility to achieve personal gratification through solving a puzzle and on the other hand in an economic perspective emerge as an innovation practice challenging the hitherto common business practice. Thirdly though we acknowledge that Democratizing Innovation is a rather wide spectre of innovation practises we focus on the innovation communities, as we are interested in observing the values and conventions of Democratizing Innovation. We do this because values and conventions are best observable in groups as opposed to observations of single individuals. Because observing the latter may be more prone to be one man's conviction, whereas group dynamics more likely are the results of a collective consensus. Thus the analysis of Democratizing In-

novation in this work is primarily limited to the user-community-based innovations, described both by Eric Von Hippel in his book *Democratizing Innovation* and by Jeff Howe, in his book *Crowdsourcing*. However both Hippel and Howe give examples of how user-generated innovation occurs as the result of a single persons creation. As such these single person creations may count as Democratizing Innovation, and even crowd based innovation as it yield from the crowd, however the individual does not necessarily have community ties and as such we cannot observe community values and social conventions. Nonetheless examples of this character will be useful in regard to understand the concept of Democratizing Innovation per se, and will be used descriptively but will not be consequential to the analysis of values and conventions as such.

Returning to the progression of this paragraph. In short the outline of the work is meant to introduce general observations on the concept and roughly frame a smaller part of a rather large concept, which will form the object of our analysis. A more in-depth understanding of the concept will be developed through examples given during the analysis. Likewise throughout the analysis the nagging suspicion, that Democratizing Innovation signifies more than a new innovation practice in a larger perspective of digital globalization, will be further developed. Consequently, through the analysis we aim towards an understanding of Democratizing Innovation, not as a new scheme of innovation, but rather as a paradigmatic shifting in globalized economy, in which innovation through production has become 'political'. Thus beginning in paragraph 6 and onward we embark on constructing an analytical framework that will scaffold the idea that Democratizing Innovation forms a multitude of bio-political resistance to the global regime in the age of Empire. But for now we will introduce our general observations of Democratizing Innovation, which will convey how we perceive the concept in regard to production and creation.

5.1 Democratizing Innovation established as an area of scientific interest

Understood as a concept regarding production and creation (both material and immaterial) *Democratizing innovation* is embedded in a larger field of both practice and theory, namely the field of *innovation*. Typing "Democratizing Innovation" using Google scholar, one gets 8.360 articles, out of which 8.210 are published past 2000. In comparison, typing "innova-

tion" the number of hits is 3,46 mill. out of which 1,35 mill. was published past 2000.[37] As such democratizing innovation is a fairly new concept, compared to the more general field of innovation. This paragraph will outline our perception of the concept of *'democratizing innovation'*, preparing for the following analysis and discussion. '*Innovation*' historically and conceptually, will be introduces and unfolded later. So, as already mentioned, *Democratizing Innovation,* as a theoretical area of research is fairly new. In the article *Democratizing innovation: The evolving phenomenon of user innovation* from 2004 Hippel states that the concept was first observed some 30 years earlier as a tendency towards innovations generated by user. [38] In an attempt to frame the extend of the concept Hippel writes:

> "When researchers say that innovation is being democratized, we mean that users of products and services – both firms and individual consumers – are increasingly able to innovate for themselves." [39]

Consequently we understand that democratizing innovation according to Hippel means that, innovation is not bound to or initiated by (in conventional sense) producers of the products. Rather users of the product, who are not necessarily yielding any monetary benefits from the innovation, are increasingly enabled to innovate in accordance with their own desires and needs. In many cases these innovations are modifications to already existing products or services.[40] Hence Democratizing Innovation seems to be related to quite a few of the innovation schemes, introduced, theorized and researched on during the past 50 years,[41] a few of which we have already introduced in the preface. Which means in accordance with the above definition of "Democratizing Innovations" the concept shares ground with innovations trends such as co-creation,[42] design thinking, [43]open innovation,[44] open source software and communities,[45] user driven innovation,[46] crowdsourcing,[47] and Wikinomics.[48] To give an example, simi-

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[37] The results are generated by a google search, and as contributions to the web are not fixed, consequently the results may vary significantly searching with the same restrictions. Thus the results should not be regarded as statistics in positivistic sense, but rather as an illustration of the difference between 'innovation' and 'Democratizing Innovation'

[38] Hippel (2005B) p. 63

[39] Hippel (2005B) p. 64

[40] Hippel (2005/A) pp. 19-20

[41] Half a decade because the articles on innovation published went from less than 40k in 1960-1969 to 140k in 1979-79 ref. search on google scholar.

[42] Degnegaard (2014) Lopdrup-Hjorth, (2013)

[43] Degnegaard (2014) Brown (2008)

[44] Marjanovic (2012) Chesbrough (2007)

[45] Chesbrough (2007)

lar to democratizing innovation, co-creation transgresses the boundaries of the classic organisation. Basically co-creation is the idea of utilizing ideas created outside the organization internally. To this end there are several strategies, some of which may be regarded in terms of democratizing innovation. Threadless.com is a case, which is used to illustrate co-creation[49] but it may also be considered as a case of Democratizing Innovation, in accordance to this description given by Hippel: "manufacturers can draw innovating users into joint design interactions by providing them with "toolkits for user innovation.""[50] In the case of Threadless.com, the company basically sells T-shirts the costumers created themselves, by submitting their own designs and voting for others designs.[51] Thus the T-shirts are a co-creation between the organization and the user. Simultaneously though, the company sells community to established and aspiring designers, "where you can send in designs and get feedback."[52] In this perspective Threadless.com per se becomes an instance of Democratizing Innovation, seeing that the organization as such becomes the toolkit users use to create. As such innovation theories of co-creation and Democratizing Innovation seem to some extend to overlap. Furthermore, the agents of the concept of democratizing innovation, the user-innovator resembles the concept of *prosumers* – the merging of producers and consumers. The concept of prosumers were introduced by Alvin Toffler, in his book *The Third Wave* from 1980, in which he describes how individuals become both producers and consumers in the new age of information and technology. In this sense he forecasts the evolution of innovation, as a matter of the many not bound to the enterprise and facilitated by the entrepreneur but rather dispersed and de-marketized,[53] enabled by the introduction of the electronic cottage characterized by the spread of the home computer.[54] By this he foresees the favourable conditions contributed by advances in computer and communication technology. Nonetheless the power of user-generated innovation has exceeded every expectation due to the amplifying effect of the Internet.[55] In fact user generated innovation is according to Hippel "becoming both an important rival to and an important feedstock for manufacturer-centered innovation in many

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[46] Mahr & Lievens (2011)

[47] Marjanovic (2012) Howe (2008)

[48] Tapscott, D. and Williams, A. D., (2007)

[49] Lopdrup-Hjort (2013) pp. 138-139

[50] Hippel (2005/B) p. 74

[51] Howe (2008) p. 1

[52] Howe (2008) p. 6

[53] Toffler (1980) p. 302

[54] Toffler (1980) p. 215

[55] Hippel (2005/B) p. 64

fields."[56] Thus in short the development of the Internet has changed the world, as it enables both the widespread distribution of information and individuals' collaboration and interaction without regards for physical location.[57] The commercialized Internet as we know it was only created in 1979, when the operating system UNIX where sold by UC Berkley.[58] The commercialization of UNIX in 1979, ignited the segregation of the coding industry into the commercial and closed source code versus the open source lead by the Free Software foundation[59] and codes like GNU (Gnu's Not UNIX).[60] Thus one might conclude that the Internet instigated Democratizing Innovation. However before getting carried away by the effect of the Internet, we must recognize though that collaboration amongst people and sharing of ideas enabling new creations has occurred since the dawn of days. Historically the sharing of ideas and innovations, which became capitalized upon, first took wind with the industrialization in late 1700 early 1800. And in fact even then user-innovations occurred. In the early years of the industrial revolution Adam Smith observed that a great many contributions towards innovations on machines, where don by workers operating the machine. They were motivated to make their task easier by which they in fact improved efficiency making it possible for one man to undertake the work of many.[61] Hence user-innovation is really not a new phenomenon it has merely been gifted with the circumstances to grow exceedingly due to the emergence of modern communication and information technology. With the Internet the potential for forming communities has become unlimited geographically physically and timely as people can meet instantly in virtual communities. As such the sharing of ideas has become viral. And additional computer technologies have provided a more general public with increasingly more affordable 'innovation toolkits' easier to operate. Subsequently facilitating a democratizing of innovation in regard to both software and physical products.[62]

[56] Hippel 2005B, p. 63
[57] Leiner, et. Al. (1999)
[58] Hars and Ou, (2002) p. 26
[59] Hars and Ou, (2002) p. 25
[60] The GNU Manifesto - GNU Project GNU.ORG http://www.gnu.org/gnu/manifesto.html
[61] Hippel (2005/B) p. 65
[62] Hippel (2005/B) p. 64

5.2 The double potential of Democratizing Innovation

When attempting an insight into the concept of Democratizing Innovation by reading Hippel and Howe, one gets the impression that there seem to be two essential narratives. The fist regards the user-innovators and the potential Democratizing Innovation pose to the user-innovator. The second message regards the organization and the potential Democratizing Innovation holds in relation to the market as a business opportunity.

Turning to Hippel and the first narrative. In the description of the user-innovators, a significant aspect of Democratizing Innovation is the user-innovators motivation. One source of motivation is explained as the gratification of solving a puzzle.[63] In fact the user-innovators may engage in and makes innovations even though they do not stand to benefit substantially from the innovation neither monetarily or otherwise rather the *process* is the motivation.[64] Hence it seems that money become secondary to the process. But also the experience of autonomy seems to be a part of the reward. Thus intrinsic rewards and the gratification of being in ""control over my own work" is cited by many programmers as a reason that they enjoy creating code as volunteers."[65] But also extrinsic rewards are determining for the motivation of user-innovation. Personal reputation is an extrinsic reward, which can yield more than one motivational factor. Because "Free revealing of high-quality code, they noted, can increase a programmer's reputation with his peers. This benefit can lead to other benefits, such as an increase in the programmer's value on the job market."[66] As such extrinsically the user-innovator can on one side be motivated by acknowledgement amongst peers and hence the connection to a certain community and on the other side be motivated by economic prospects of procuring a future job.

Hippel's second narrative concerns organizations potential to utilize the innovations generated by Democratizing Innovation. The observation is that firms can gain business advantage from incorporating user-innovations into their strategy.

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[63] Hippel (2005/A) p. 60
[64] Hippel (2005/A) p. 61
[65] Hippel (2005/A) p. 61
[66] Hippel (2005/A) p. 86

"Firms can make a profitable business from identifying and mass producing user-developed innovations or developing and building new products based on ideas drawn from such innovations. They can gain advantages over competitors by learning to do this better than other manufacturers. They may, for example, learn to identify commercially promising user innovations more effectively that other firms. Firms using lead user search techniques … are beginning to do this systematically rather than accidentally—surely an improvement."[67]

Relating back to the very introduction, this connects to the statements of McGrath that "companies are going to have to learn how to survive and thrive in a new environment where competitive advantage will increasingly come and go in temporary waves."[68] Hence in a business perspective Hippel introduces a narrative of Democratizing Innovation, which can be interpreted into posing as a possible wave of competitive advantage if the organizations correctly manage to systematically rather than accidentally indentify, incorporate and utilize the innovations created by user-innovations.

Turning to Howe's double narrative. In observing the possibilities of consumers turning into producers he creates the narrative almost as a battle between the individual and organisational structure of the firm caused by the blurring lines between the producers and the consumers.[69] The blurring of the lines is caused by the means of production becoming cheaper and more user-friendly, distributions are enabled virally and "Amateurs[70] provide the crowdsourcing engine with fuel"[71] subsequently blurring the lines between producers and consumers. Not that innovation per se and the generation of ideas is an universal given, but out of the conviction that "some small fraction of hits, often less than 10 percent, carries the water for a much larger fraction of misses."[72] In other words, interpreting Howe's description, Democratizing Innovation is an effect, caused by a prior democratization of production. Furthermore as the Internet is proving efficient to organize a crowd of individuals into productive groups, he observes that the community has increasingly become a rival to the corporation. Subsequently,

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[67] Hippel (2005/A) p. 127
[68] McGrath (2013) p. 17
[69] Howe (2008) p. 98
[70] However we find Howes term amateurs problematic, because one could get the notion that he refers to talent, however participants may be very skilled thus amateurs should be understood in terms of people who are not employed in this field professionally.
[71] Howe (2008) p. 71
[72] Howe (2008) p. 76

he establishes the crowd as a term consisting of the approximate billion people online across the globe. Additionally he observes that this billion people, is a crowd who pose a billion potentials of contributing to a project in some way.[73] As such he conveys a message that the power to create and produce is shifting grounds from being a task belonging to the organization towards being a potential inherent to the crowd. Simultaneously however Howe tells the tale of how the Internet communities pose an opportunity to be turned into commercial goods, and that companies, such as MySpace and YouTube have in fact already succeeded in capitalizing upon the crowd communities.[74]

Trough this brief introduction into the explications of Democratizing Innovation we have achieved an insight that leaves an impression that the concept serves a double potential. On one hand as business opportunity, already utilized by some organizations but yet to be incorporated and capitalized upon by many other organizations. On the other hand Democratizing Innovation serves as a potential for user-innovators to solve a puzzle, engage in projects which user-innovators experience to have autonomous control over and in a collective perspective Democratizing Innovation serves as a means to gain recognition amongst peers and according to Howe, potentially forming communities in rivalry with the commonly acknowledged organizational structures of the past century. In the first part of the analysis we will mainly focus on the narrative that regards the user-innovators because we aim towards investigating the values and social conventions in the innovations communities. However in the second part, which unfolds an discussion of Democratizing Innovation as a paradigmatic resistance in the Age of Empire and the power of a globalized Economy, the second potential of Democratizing Innovation as a new business potential becomes very interesting. The intention is to show how the double potential in a perspective of bio-politics forms the dynamic of bio-power namely the flux of power-resistance-power-resistance etc.

5.3   Narrowing the perspective to the crowds of creative communities

As we have tried to illustrate in the previous part of this paragraph the concept of Democratizing Innovation is rather inclusive according to the definition we gather from Hippel:

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[73] Howe (2008) pp. 98-99
[74] Howe (2008) p. 103-109

"When researchers say that innovation is being democratized, we mean that users of products and services – both firms and individual consumers – are increasingly able to innovate for themselves." [75]

Consequently we experience that the concept of Democratizing Innovation share space and overlap with quite a few other concepts in the field of economical and production related innovation. Even examples introduced in the narratives by Hippel and Howe can be conceptualized otherwise by other innovation schemes and concepts. Likewise in the brief introduction to the empirical foundation of the investigation we learned of what seems to be a double potential of Democratizing Innovation. However as we proceed to the analysis though we acknowledge the scope of Democratizing Innovation we will narrow the focus to the user-innovators and the communities they create.

The interesting about creative communities is that they are directed by a culture. If it is constructed by an organization, the culture must be very explicit. If the community is emergent out of one mans idea, as fore instance LINUX, the culture may be very implicite. Nonetheless the culture, language, roles, traditions and principle are to a great extend what makes the creative communities emerge as self regulating[76], almost autopoietic.[77] In the case of the community Common Lisps, or more precisely the governing inner-circle of Common Lisps, "The day-to-day activity consisted of political and technical debate followed by making specific decisions,"[78] Thus not only does Common Lisp, depict a strong community with ceremonies and traditions which direct the interaction in the group. In other words inherent in the innovation community are structuring structures; we believe can be enlightened by a political conceptualization. Thus in the following we introduce a more specific insight into the descriptions of the communities of user-innovators (Hippel) and the crowd communities (Howe).

Though before we commence we must notice, that aside from the obvious semiotic difference, in the words used to describe the communities also other differences are to be found in the two descriptions. Hippel emphasize the lead users as those who produce the better re-

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[75] Hippel (2005B,) p. 64

[76] Goldman (2005) pp. 9-11

[77] Autopoietic systems, is a concept from biology introduced in social science by Luhmann, to describe closed social systems, which are recursive, self-reproducing and adapting to their contextual surroundings (Luhmann (1990) p. 3).

[78] Goldman (2005) p. 12

sults,[79] whereas Howe advocate the benefits of diversity and the crowd effect over experts, because in the crowd you may find the wildcard as opposed to the experts who may produce iterative solutions because they are caught in the same logical, and educational regime of thought.[80] Thus Howe argues to reap the best creative result one should in fact aim towards a maximum of diversity. As Howe observe that ideas generated by the crowd obey the power law distribution (the 80/20 rule)[81] or the Pareto Principle, which states that 80% of results are attributable to 20% of the causes. [82] Thus the effect of the crowd is not an even production of innovation rather "some small fraction of hits, often less than 10 percent, carries the water for a much larger fraction of misses."[83] However based on several studies of innovation communities Hippel advocates that user-innovators can be segregated into lead-users and users in general, where results of the studies show that lead-users are more likely to come up with novel products and attractive innovations in terms of a market perspective.[84] However due the object of our investigation namely how Democratizing Innovation configures a tendency towards (a new) democracy we focus on the dynamics of these communities. Thus we focus on the narratives of the communities and how they structure internally and externally. By this we mean how the members of the communities gain membership and how the communities responds to the 'outside' Thus in the following we focus on clarifying the values and social conventions, at stake in the concept of Democratizing Innovation and how these values form a collective common. We do this by introducing case examples from Hippel and Howe supplemented by additional research from webpages relating to the cases. However the cases we will get to know as we unfold them during the analysis and the theoretical development in the following paragraphs.

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[79] Hippel (2005A) p. 5
[80] Howe (2008) p. 132
[81] Howe (2008) p. 76
[82] investopedia.com /pareto-principle
[83] Howe (2008) p. 76
[84] Hippel (2005/A) p. 5

6 Democracy – constructing a political conceptualization

Due to the claim that innovation is becoming democratized; one gets an instant perception of the concept as something concerning the public and or private person; not only the corporate person i.e. the employee. The obvious reason is the semiotic hybridization of the concept *Democratizing Innovation* as *democracy* is of Greek origin demos (people) and kratos (to rule), which translate into 'ruled by the people'. However the element of democracy in Democratizing Innovation is not unequivocal. Like in the governmental use of the term 'democracy' democracy is not a static term, but changeable in accordance with the demos (people) that constitutes it.[85] However what we propose in this paragraph is that though democracy is not univocal we are able to make a construction of the structures structuring Democratizing Innovation in a way that mirrors political structures, thus constructing a political conceptualization of Democratizing Innovation.

In paragraph 6 we draw on the conceptual framework of Arendt to crate a mirror image of what we perceive to be values of Democratizing Innovation, thus enabling us to understand the values in terms of our development of Arendt's concepts. Following we expand this understanding by creating a conceptual negation, seeing that Sennett offers a conceptualization of the social conventions which create ties amongst strangers in a community. His claim is that these conventions suffer erosion, however we seem to be able to observe quite the contrary in regards to the community ties of Democratizing Innovation. Through this analysis we aim towards building a foundation for the analytical discussion of Democratizing Innovation as an instance of resistance, functioning as a paradigmatic tendency towards (a new) democracy in the era Empire.

6.1 Assuming an understanding of democracy

Keeping in mind that we wish to get an understanding of Democratizing Innovation as this concept is known to us from a reading of Hippel (*Democratizing Innovation)* and trough examples of creative communities as described by Howe (*Crowdsourcing).* In the following we assume an understanding of democracy by a reading of excerpts from Arendt's *The Human*

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[85] Dahl (2006). *Democracy*

Condition. During the explication of *The Human Condition* the concept of Democratizing Innovation is progressively analyzed. The objective is to recognize the values and conventions immanently at stake in Democratizing Innovation, by constructing a mirror image of the values of political theory in the reading of Arendt. Though we aim to understand the political values, however we simultaneous refute the representation of Democratizing Innovation in form of a political body, because as such a unity in form of a body relates to the nation-state and hence property and ownership, which is in direct conflict with the values inherent to Democratizing Innovation and the later understanding of Democratizing Innovation as a multitude.

6.1.1 Establishing Democratizing Innovation as a human condition

The human condition, as we perceive it is what makes man 'man', and as such not merely 'nature'. Not to be confused with human nature or essence, as imagining, if a small part or portion was missing one would cease to be human.[86] Rather *The human Condition* regards mans *relation* to the surroundings, 'nature' and 'world' and, as we shall see in this reading of Arendt, it is the basis for the understanding of the political realm and hence the concept of Democratizing Innovation as a paradigmatic tendency towards (a new) democracy. Basically "Men are conditioned beings because everything they come in contact with turns immediately into a condition of their existence."[87] Simultaneously man constantly creates his own conditions. In fact 'the world' would be "a non-world, [of unrelated articles] if they were not the conditioners of human existence."[88] As such the condition of the human condition, is an endless oscillation between being conditioned and turning out new conditions of an endless and contingent human condition. Because "the condition of the human … never condition us absolutely."[89] In short the human condition is not an absolute, and not what makes man 'man'. Rather one could say the human condition gives direction and is what makes man progress.

On these grounds the initial analytical claim is that Democratizing Innovation as such forms a human condition, because it is a concept, which regards human activity and as such must be a conditioning condition. We take the liberty to talk about Democratizing Innovation and the

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[86] Arendt (1958) p. 10
[87] Arendt (1958) p. 9
[88] Arendt (1958) p. 9
[89] Arendt (1958) p. 11

impact of this concept as a human condition in general terms, meaning as more than a local-
ized and or isolated (to a few) human condition. This is due to examples like the 2016 annual
report from Creative Commons, which states that a mere niche of what one would deem
within the concept of Democratizing Innovation, such as the Global Commons Movement,
has expanded from 140 mill. in 2006 to 1,2 billion CC-licensed works as of last year, almost
ten times as many licenses during the past ten years.[90] In support of this observation, in 2003
Hippel and Krogh stated that "open source project has emerged as an major cultural and eco-
nomic phenomenon"[91] referring to Sourceforge.net as grounds for the observation. What they
observe is that Soruceforge.net, a webpage linking open source project and open source de-
velopers in 2003 list more than 50.000 projects and the no. of members developing and work-
ing on projects where exceeding 500.000.[92] In comparison the same page today lists that
developers has contributed to more than 430.000 projects and the registered users of the site
amounts to 3,7 mill. Additionally their web page informs us that the infrastructure serves 41,8
mill. costumers providing 4,8 mill. downloads *a day*.[93] To summarize, the number of projects
has expanded 8,6 times and number of developers has grown to 7,4 times as many over the
duration of the past 14 years. Likewise, previously mentioned examples such as Über, You-
Tube and iStockphoto scaffold our assumption of the far reach of Democratizing Innovation.
As such we assume it likely that Democratising Innovation can be hypothesised as more than
an isolate human condition. Consequently we deem it plausible to address Democratizing
Innovation in general terms and not just as a localized phenomenon and or conditioning cir-
cumstance. This preliminary justification aside, returning to the last observation of *the human
condition* as a force driving man forward, notably as man continues to conditions his own
condition. As a concept, which, as described earlier, has the potential to disrupt, economy and
innovation[94] it seems reasonable to perceive it to be a driving force comparable to that of a
human condition. To be able to regard disruptive potentials as a driving force and not as a
mere disturbance we draw on an understanding of the force inherent to innovation adopted
from Schumpeter's theories on *Creative Destruction* and *Creative Responce*. In short innova-
tion is an instance of Creative Response[95] followed by Creative Destruction, meaning a de-

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[90] Creative Commons (2016)
[91] Hippel & Krogh (2003) p. 210
[92] Hippel & Krogh (2003) p. 210
[93] Slashdot Media (2017) soruceforge.net/about
[94] Hippel (2005/A) p. 2-3
[95] Schumpeter (1947) pp. 150-151

struction of the existing in favour of the new.[96] In order words, innovation according to Schumpeter is a creative force towards the new. As such something disruptive may indeed cause improvements and creative leaps forward. Accordingly we believe Democratizing Innovation to possess an assertive quality of progress and direction as that of a human condition.

6.1.2 Vita Activa and the similarities of Action and Democratizing Innovation.

However, returning to the reading of *The Human Condition* of an overall human condition *Vita Activa,* according to Arendt, corresponds to three fundamental conditions, *labour, work* and *action* "under which life on earth has been given to man."[97] These are closely connected to and directed by "the most general conditions of the human existence: *birth* and *death*, *natality* and *mortality*."[98] In short labour corresponds to vital necessity and relates to the labour creating and sustaining life. As such labour regards the natural, biological life and the birth, decay and death of life.[99] Work is activities considered with the "'artificial' world of things"[100]. Work is distinct from the natural-ness of the natural surroundings in that work produce artefacts, which transcend the mortal human existence in both time and space. Thus work creates space and forms the objectivity of the world. Spatially work forms the world, as we know it and accordingly exceeds human mortality in time. As Arendt puts it "The human condition of work is worldliness."[101] The final activity concerning *Vita Activa* is action, which is activity directly between men and the only one of the three (labour, work and action), which is independent of things and matter. Rather action is corresponding with the human condition of plurality as "men not Man, live on earth and inhabits the world"[102] Hence action requests plurality and plurality calls for action. To clarify one would say, action *is* being amongst and dealings with other *free* conditioned humans, and consequently the shaping of a political being. Furthermore action scaffolds and preserves tradition and history by conveying tradition and history amongst men and passes it on to newcomers. In this sense action relates

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[96] Schumpeter (1942) p. 83
[97] Arendt (1958) p. 7
[98] Arendt (1958) p. 8
[99] Arendt (1958) p. 7
[100] Arendt (1958) p. 7
[101] Arendt (1958) p. 7
[102] Arendt (1958) p. 7

stronger than labour and work to the general condition of natality, in as much as natality is the newness into the world (by fore instance integration of new member in a society), and the beginning of the new (as a sort of innovation) and as such closely bound to "initiative, an element of action"[103]. And as "action is the political activity par excellence"[104] natality and "the capacity of beginning something anew"[105] becomes central to both the political being and the human condition.

Through assuming this perspective of Arendt we are able to address the concept of Democratizing Innovation again. As we notice that immanent in the condition of action is a capacity to "begin something anew" we are introduced with a similarity between the term action and Democratizing Innovation. In fact as action denotes both the political side of man and immanently holds the driving force of new-ness or novelty, one is prone to conclude that action and Democratizing Innovation are the same given that democracy is a political term and innovation denotes the progress towards the new. However, not forgetting the prior distinction between *action, work and labour,* this conclusion is premature as Democratizing Innovation in fact concerns activities that may produce actual artefacts, which are related to the category of work. As the term action per definition is independent of matter (artefacts and other tangible products of man), we must assume that Democratizing Innovation bear resemblance to both the political which is independent of actual matter and that of the actual artificial world of human construct. Thus accepting a view in accordance with Arendt, provisionally Democratizing Innovation theoretically presents as paradox. The paradox arise as Democratizing Innovation as described by Hippel on one side concerns being amongst and dealings with other *free* conditioned humans through the construction and preservation of collaborative communities and on the other side concerns the production of worldly artefacts and thus the distinction from the natural-ness of the natural surroundings trough work. As such the paradox is that Democratizing Innovation simultaneously is concerned with matters free of matter and matters of construction and production. The subject of Democratizing Innovation as a matter of construction and production, will however be addressed later. Thus we content our selves with noticing the initial problem, however insisting that inherent to Democratizing Innovation lie a production free of matter, when forming creative communities. Moreover we

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[103] Arendt (1958) p. 9
[104] Arendt (1958) p. 9
[105] Arendt (1958) p. 9

observe that these communities form in plurality and in fact yield their ability to form as creative by way of plurality as intrinsic difference free of matter, as it pertains to individual skill and knowledge. This we learned earlier by the observation that the crowd inhabit a billion potentials of new ideas.[106] Hence inherent to Democratizing Innovation is activity driven by 'the new'. By way of this we see a clear similarity between the concept of action and the potential of the new inherent to Democratizing Innovation. Likewise immanent in Democratizing Innovation seem to be structuring structures which can be ascribed to cultural direction we can interpret in terms of political structures. According to one of the co-founder of Common Lisps a community collaborating on gathering and constructing a common language of programming, the creative communities are directed by a culture. Moreover if it is constructed by an organization, the culture must be very explicit. Whereas if the community is emergent out of one mans idea, as fore instance LINUX (namely Torvald Linus), the culture may be very implicit. Nonetheless the culture, language, roles, traditions and principle are to a great extend what makes the creative communities emerge as self regulating[107], almost autopoietic.[108] In the case of the community Common Lisps, or more precisely the governing inner-circle of Common Lisps, "The day-to-day activity consisted of political and technical debate followed by making specific decisions,"[109] Thus not only does Common Lisp, depict a strong community with ceremonies and traditions which direct the interaction in the group.[110] Remembering the values of vita activa, Common Lips is also ascribed habits recognizable as qualities from the Greek pools, namely conveying and upholding the community to newcomers, trough traditions and ceremony. Furthermore in the self-description they specifically form around a sort of governing inner circle leading us to believe that we can successfully progress with our project assuming structuring structures of Democratizing Innovation comparable to those of political theory thus constructing a political conceptualization. Hence we proceed by introducing a conceptualization of the freedom immanent in the political realm, as a freedom to participate under certain circumstances, which we believe able to see, reflected in Democratizing Innovation as well.

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[106] Howe (2008) pp. 98-99
[107] Goldman (2005) pp. 9-11
[108] Autopoietic systems, is a concept from biology introduced in social science by Luhmann, to describe closed social systems, which are recursive, self-reproducing and adapting to their contextual surroundings (Luhmann (1990) p. 3).
[109] Goldman (2005) p. 12
[110] Goldman (2005) pp. 11-12

6.1.3 Freedom - an obligation to participate

In an Aristotelian sense the action held in *Vita activa* correlates to *bios politikos*. For Aristotle bios politikos designated the free life because "it excluded everybody who involuntarily or voluntarily, for his whole life or temporarily, had lost the free disposition of his movements and activities."[111] Thus the significance about the Greek political life is that it is closely bound to their understanding of freedom. In short "to be free meant to be free from the inequality present in rulership."[112] Thus free of government, both in the sense of being ruled over and in the sense of ruling over others.[113] The concept of freedom in the Greek polls was therefore amicably connected to the concept of equality. In fact "equality …was the very essence of freedom"[114] in the ancient Greek polls, because life in the political realm, meant to deal only with ones equals.[115]

Likewise to engage in Democratizing Innovation, in many cases, mean to deal only with ones peers, and as such to engage in a realm of equals where no one rules per se, but everyone is ruled by the inherent structuring structures. Moreover in the case of the coders the communities are closed to non-coders, as participation demands craftsmanship,[116] in some way comparable to the ancient public realm being closed to those who did not poses a free disposition. Put in another way codes are not accessible to laymen, as they do not possess the skills (or rather knowledge – hence matter free of matter) to understand and appreciate the beauty of the codes. Skilled coders on the other hand even develop signatures and details comparable to the artistry of architecture to incorporate in the codes, which yield appraisal amongst peers.[117] However though this seemingly indicates that communities of Democratizing Innovation are closed towards the outside this is not the case, which we will return to shortly.

Returning to our development of freedom however. Freedom of the polls was understood as something one choose to engage in when one was able to master life's necessities. In other words the political life of the polls was the autonomous and authentic way of life, one could

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[111] Arendt (1958) p. 12
[112] Arendt (1958) p. 33
[113] Arendt (1958) pp. 31-33
[114] Arendt (1958) p. 33
[115] Arendt (1958) p. 32
[116] Hippel (2005/A) p. 124
[117] Hippel (2005/A) p. 124

choose, as a free man.[118] In this perspective the polls offered a second life besides the private – the political life. Thus Freedom instigated a separation of ones own life and the communal life.[119] In the antique conceptualization the political life could be reduced to two activities: action (praxis) and speech (lexis).[120] Thus in the choice of freedom was immanent an obligation, of action trough speech. In fact to be political meant that everything was decided trough speech and persuasion not violence and force.[121] Political life and freedom were built on negotiation rather than dictation and force. Hence the main task of the citizens of the polls was to talk to each other, because the citizens' way of life was "a way of life in which speech and only speech made sense."[122] In short we interpret the obligation of freedom, was participation in form of action and negotiation because speech meant to persuade.

Both the obligation to participate and negotiate is found to be qualities inherent to the creative communities as well. When turning to the community of Apache, which is Web Server Software build on open source licenses, build by anyone who possess the correct skills.[123] The community began as a very small group, however quickly more coders began freely to offer solutions to the code. Thus the community started to form out of the freedom to participate. However we observe that, that freedom comes with an obligation to participate because membership where only bestowed "When the group felt that the person had "earned" the merit to be part of the development community, [not until then were] they granted direct access to the [source] code."[124] Thus we observe freedom as an obligation in this example, subsequently observing, as an obligation to prove one self and earn access through merit this conceptualization of freedom seems inherent to Democratizing Innovation. Furthermore the example of Apache also illuminates the aspect of speech. Because when accepting members "they were only filtering the people that they believed committed enough for the task and matched the human attitudes required to work well with others, especially in disagreement."[125] Aside from commitment, the Apache community seems to emphasize an attitude in regard to disagreements. And when factoring in the official code of conduct, it becomes clear that the

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[118] Arendt (1958) p. 13
[119] Arendt (1958) p. 24
[120] Arendt (1958) p. 25
[121] Arendt (1958) p. 26
[122] Arendt (1958) p. 27
[123] Hippel (2005/A) p. 38
[124] Apache.org/foundation/how-it-works - *Meritocracy*
[125] Apache.org/foundation/how-it-works - *Meritocracy*

community is build on discussion and take distance to verbal abuse.[126] Thus we believe that speech and negotiations as well as an obligation to participate is inherent to the innovation communities.

However returning to the question of the communities being closed to the outside. Hippel observes that the communities are not closed, secluding innovations from the world not relating to the communities. Because the communities does not force their values on the 'outside' rather "Anyone is free to download code or seek help from project websites, and no apparent form of moral pressure is applied to make a compensating contribution"[127] In other words anyone who can benefit from the innovation are welcome to it, without necessarily contributing to either innovation or community. We saw this earlier as well in the case of Sourceforge.net in their listing of costumers and downloads. This is as well what dissolves the above suspicion that the communities are inaccessible, the communities are accessible both for costumers (mere users) and for contributors i.e. user-innovators as such appearing as an open network of materialized ideas.

But for the user-innovators and thus the members of the communities, the membership seems to entail that one subscribe to certain values and actions besides the basics of equality with peers. Looking into this mentality in the next paragraph we introduce the concept of excellence, to address the mentality and the extrinsic rewards in light of structuring structures of Democratizing Innovation.

6.1.4   Excellence – structuring the communities of Democratizing Innovation

In the political life of the polls, to live amongst peers meant 'to belong to the few' in a political realm where everybody constantly strove to distinguish one self from others. In other words it was to be able to distinguish one self and out of love for politics every individual were willing to share the public burden.[128] To be able to distinguish one self was thus rooted in the public sphere in terms of excellence, as excellence needs a proper space because "for excellence, by definition, the presence of others is always required, and this presence needs

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[126] Apache.org/foundation/policies/conduct – *Specific Guidelines*
[127] Hippel (2005/A) p. 90
[128] Arendt (1958) p. 41

the formality of the public, constituted by one's peers."[129] Thus truly to prove ones excellence, it is important to be amongst equals and equally minded in the public realm and moreover share a love for the politics of the public realm, hence the structuring structures.

Revisiting Hippels example of the communities of lead users of open source. These users are described as users who possess certain skills in regard to coding. These skills are further exemplified by a comparison to architects as "both [architecture and programmes have] an expressive and a functional component. Unlike the architecture, though, the expressive component of a programme is inaccessible to non-programmers… only their peers are able to truly appreciate their art."[130] When we notice that only peers can truly appreciate each other's work, we are introduced to an aspect of Democratizing Innovation, which mirror the concept of excellence.

In the case of iStockphoto Howe also introduces a case, which imitate the conceptualization of excellence. iStockphoto is a community which was initiated in 2000 by the photographer Bruce Livingstone, as a site where he and others could share each others photos. Soon a small community formed and he began charging a small fee per image. As the business grew to a flourishing community iStockphoto became a serious rival undercutting the big stock-agencies by 99 percent.[131] Since then the community has evolved and the community is no longer only limited to the Internet. To accommodate the members of the community iStockphoto host offline events called iStockalypses, which have proven to be extremely important, because the members get the chance to meet the people behind the screen handles.[132] But more importantly the iStockalypses "have come to illustrate one of the central dynamics of the iStock community: the best photographers want to teach and the newbies want to learn."[133] This is a tendency not only pertaining to the iStockalypses, in general the elite photographers in the entire iStock community seem to want to share that which they have learned from others in the same community.[134] As such we see iStockphoto forming a realm of equally minded, and in spite of the obvious distinction between the best and newbies we observe that

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[129] Arendt (1958) p. 49
[130] Hippel (2005/A) p. 124
[131] Howe (2008) p. 7
[132] Howe (2008) p. 194
[133] Howe (2008) p. 194
[134] Howe (2008) p. 195

these elite photographers in fact utilize the space of excellence in order to distinguish themselves as the elite by teaching others.

Moreover what we observe is that extrinsic motivations and the aim for excellence prove to be structuring for how members of the community conduct themselves inwardly. Thus we believe the communities are politically structured, forming the second life like that of the political life, which also mirrors the quality of the constant desire to distinguish one self opposed to everyone else. And what seemingly is a personal motivation also manifest as a structuring structure of Democratizing Innovation when politically conceptualised because we see excellence to be structuring the members' conduct in the community.

6.1.5   Social life and bios politikos – how economy became a political concern

While when speaking of contemporary politics it is rather hard to do so without talking about society and the social. Seeing that we later will address Democratizing Innovation as a multitude of social subject producing the common through sharing we will in the following address the social and how the social became a matter of the public realm. However in the ancient Greece talking about the social in political terms would have made a whole different sense, or rather it would have been senseless. Because in ancient conception "…man is a 'social' before he is a 'political animal'…"[135] thus we notice that bios politikos was strictly segregated from the social as being prepolitical, meaning the activities of the household and/or undertakings of other monetary character sustaining life. Not to be understood that the prepolitical was unimportant, rather that the household and the life in it "existed for the sake of the "good life" in the *polls*."[136] However this clear-cut distinction between the matters of the private and the public realm was quite literally lost in translation from Greek to Latin. The relationship between the terms social and political "…man is a 'social' before he is a 'political animal'…"[137] lead to the initial translation of *zoonpolitikon* into *animal socialis* during the time of the Roman empire*,* and later the medieval definition "*homo est naturaliter politicus, id est, socialis* ("Man is by nature political, that is, social)"[138], established the emerging equivalency of the

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[135] Arendt (1958) p. 32
[136] Arendt (1958) p. 37
[137] Arendt (1958) p. 32
[138] Arendt (1958) p. 23

political and the social. The consequence was that the term social gained a more significant role. With the social also economy, as that of the household, moved into the sphere of political matters. Because when the social became equal to the political or rather when the political was degraded to concern the social, politics came to concerns national and social economy, as we see "political communities in the image of the family".[139] However this seem to dissolve our initial problem, when we arrived at the provisional paradox, that Democratizing Innovation seemed to; on one hand reflect the dealings with other *free* conditioned humans through the construction and preservation of collaborative communities; and on the other hand concerns the production of worldly artefacts and thus the distinction from the natural-ness of the natural surroundings trough work. As such the paradox was that Democratizing Innovation simultaneously concerns matters free of matter and matters of construction and production. However while as we have shown we are able to create a mirror image of the structures of Democratizing Innovation via the values of the ancient political realm. We maintain that Democratizing Innovation is a contemporary concept and hence simultaneously adjusting towards the current state of politics, the social, work and economy, thus economy and the artificial world sneak in trough the back door. Because as we have established Democratizing Innovation simultaneously concerns matters free of matter and matters of construction and production, and hence we suspect that as a paradigmatic tendency towards (a new) democracy, Democratizing Innovation is subject to the contemporary political and economic landscape and to some extend forms as a political philosophy of public action present in the creative common. In reference to the future analytical discussion this in fact pre-empts the assumption of paragraph 8, that; "In Empire and its regime of biopower, economic production and political constitution tend increasingly to coincide."[140]

However before anticipate our own arguments we turn towards constructing a further perspective on Democratizing Innovation. Again we are concerned with the structuring structures while continuing the conceptualization. However in this paragraph we also learn more on how the communities manifest when encountering outside interference as we identify what seems to be a *Res Publica*, as such community ties which requires a certain conduct.

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[139] Arendt (1958) p. 28

[140] Hardt & Negri (2000) p. 41

6.2   Democratizing Innovation – the rise of a new public (man)

In 1974 Richard Sennett wrote *The Fall of Public Man,* in which he unfolds his observations of the decay of the boundaries between the private and public sphere as a result of "secularization and industrial capitalism,"[141] which in turn has destroyed the public.[142] Despite the argument was introduced 40 years ago it seems indeed still highly valid, when factoring in fore instance the idea of introducing the whole person to the workplace. In other words the private is moved from the private sphere towards the public – and entailed the tearing down of the division of what Habermas would call the system and the life-world. However due to the previous investigation it seems that Democratizing Innovation has instigated a motion in regard to innovation, which in fact seems to re-establish some sort of public values in the form of values inherent to creative communities. Thus we find it productive to introduce an understanding of *Res Publica*, in order to get a closer understanding of a possible Res Publica of the creative commons of Democratizing Innovation. As Sennett's argument claims that Res Publica is eroding, whereas Democratizing Innovation seems to illustrate the opposite, the analytical take will be to prove a Res Publica in Democratizing Innovation trough a negation of the reading of Sennett. Not that we mean to disprove Sennett rather we want to prove an opposite tendency in regard to Democratizing Innovation.

6.2.1   Democratizing Innovation – a negation of a decaying Res Publica

Res Publica is the bond of a crowd of people, who are not otherwise committed through ties of family or friendship. They are the rules instigated when participating and engaging in the ceremonies and traditions amongst strangers of public life. However, what seems to be the case is, that public life, according to Sennett, has become an obligation, rather than something one engages in. Meaning that Res Publica has become at set of rules of engagement, which are quietly accepted without spirit. [143] Thus from this development of the decay of Res Publica we gather that the community is met with indifference and apathy by the individual and rules are unimpeded but rather quietly and uncritically accepted.

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[141] Sennett (1974) p. xvii
[142] Sennett (1974) p. xvii
[143] Sennett (1974) p. 3

Turning to the creative commons and the communities of Democratizing Innovation, this seems to be far from true. Revisiting the case of iStockphoto, and continuing the tale. In 2005 iStockphoto was acquired by Getty the world's largest photo agency,[144] because iStockphoto's rapid success simultaneously had proven to be a tremendous new opportunity and caused a serious economic disruption in the stock photo industry.[145] However what we should keep in mind is that iStockphoto is build on community, thus when iStockphoto (in the sense of the company acquired by Getty) introduced a new feature, the Forumeter, on the forums website, in early 2006 the community responded promptly. "The community questioned the principles behind measuring a community member's popularity, as well as the Forumeter's function-ality"[146] Despite the fact that the Forumeter was highly sophisticated in its way of measure-ment, in the end it was retracted from the website.[147] In this case we interpret that the Forume-ter as a feature disrupts the Res Publica introducing a new rule so to speak. As the Res Pub-lica of iStockphoto builds on rules where member's popularity are determined and bestowed symbolically by recognition by peers, whereas the Forumeter suspends this rule and hence one of the significant community ties. By introducing the feature, the administration of the site exceeds their mandate. Moreover we observe the community starts questioning the Foru-meter and the underlying motives. All in all the community does not respond with apathy and quiet acceptance as such we must consider the Res Publica of iStockphoto be both strong and very well preserved.

Another interesting example in this context concerns the graphic library called Qt. This li-brary was until 2000 the intellectual property of the company Troll Tech. Qt was in 1988 used when LINUX programmers build an open source software interface named KDE. KDE proved very promising and was available as open source under the General Public Licence (GLP). However building on Qt which was not open source and unable to convince Troll Tech to re-register Qt, LINUX developers were concerned that KDE would end up requiring a Qt license and hence not be open source. Thus they began to develop an open source alterna-tive to Qt. When Troll Tech realized that Qt might end up being redundant and that Troll Tech as a consequence would loose market shares they finally decided to register Qt under GLP.

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[144] Howe (2008) p. 182
[145] Howe (2008) pp. 183-185
[146] Howe (2008) p. 189
[147] Howe (2008) p. 189

Again we observe an innovation community who build on certain principles we can translate into a Res Publica, in this case sharing and collaboration but also negotiation via the attempt (though unsuccessfully) to negotiate with Troll Tech. Moreover, the example is also comparable to values of the political life. This case though is essentially opposite of iStockphoto. Because in the case of Qt the outside does not interfere with the community rather the community interferes with and resists the logics of the outside. Nonetheless we observe this as another testament of a Res Publica, which does not suffer decay, neither from apathy nor indifference. In other words by negation we seem to be able to observe that in communities pertaining to Democratizing Innovation Res Publica is strong and even able to resist and affect their contextual surroundings. Yet another important observation in regard to the cases of iStockphoto and Qt is that the outside, which is resisted/interfered with, in both cases originate in economy in the form of an organization (Getty acquiring iStockphoto/Troll Tech). In other words economical motives are the source of the interference. Thus we slowly embark on approaching the central concern of the thesis, that Democratizing Innovation is a paradigmatic tendency towards (a new) democracy in the age of Empire and the inherent regime of bio-power, a tendency, which proves able to resist and hence produce 'the new'.

6.2.2   Democratizing Innovation – a negation of self-absorption

Returning to Sennett's argument we learned by the aforementioned, that the state of decay, which has struck the public forums such as the cities, has been caused by an apathetic approach to the public life. To accommodate the spiritlessness and the decay of the public, according to Sennett emphasis is brought on the private realm and reflections of the psyche and the self in the attempt to live a more authentic life. Henceforth the solitary life with family and friend has been bestowed significance as "an end in itself."[148] To know one self has become the primal task and goal of the person, and no longer serves as the standpoint from where one embark on getting to know the world though acquiring knowledge. Rather this extreme self-absorption becomes the psychic mirror in which we recognize the world and other people, for instance "A Political leader … is spoken of as 'credible' and ' legitimate' in terms of what kind of man he is, rather than in terms of the action or programs he espouses.

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[148] Senneth (1974) p. 4

The obsession with persons … discolors our rational understanding of society…"[149] The case seems to be that the psyche rather than merits and deeds becomes the measure of the of the world.

In this regard Sennett's argument differs from the values of Democratizing Innovation as well. Revisiting an already known example from the LINUX community where one coders gives and account of the values of participating in the community. We learn that he describes coders as skilled and highly creative moreover as both artists and craftsmen. Hence as artists they have a personal signature which is embedded and recognizable in the code and as craftsmen they are members of a league of people with a certain skills and abilities, both of which affords them credit and acknowledgement in the coders community. Thus we observe that merit and deeds are the measure in the communities of Democratizing Innovation, rather than what sort of person the coder is. In fact this dynamic of peer acknowledgement is explicitly noted as one of the main reasons and motives amongst the community members to participate in the communities.[150] As such in the creative commons of Democratizing Innovation, the psyche and the personal had not become a measure, rather a 'rational' understanding of the community through merits and deeds seems to be intact and enforced.

6.2.3   Democratizing Innovation – a negation of dead space

Developing Sennett's augmentation further he observes that the tendency he depict quite literally manifest in society through architecture which seems to facilitate the isolation of subjects through a construction of architectural public dead spaces. This is induced by the fashion of the public space invoking isolation and passage rather than social activity and interaction. That same goes for floor planning, where social (self-)control is instigated by public isolation, via building walls of glass, which psychologically demands cutting socializing short or completely refrain from any social interaction.[151] This has created a social state of a-sociality, where public space has shifted in purpose and meaning. Public space has thus shifted from serving as a realm of excellence and the realm of etiquette, ceremonies and the ties amongst strangers in Res Publica, to a means of the single persons momentary need. Thus becoming a

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[149] Sennett (1974) p. 4
[150] Hippel (2005A) p. 124
[151] Sennett (1974) p. 15

means of passage and freedom of motion,[152] rather than the means of freedom to excel and engage in community life. Thus reinforcing the tendency towards a sensation that society increasingly seems to consist of dead public space. The same tendency of individual isolation we observed elsewhere though conceptualized a bit different. Hardt & Negri observes a society of spectacle:

> "In the society of the spectacle, what was once imagined as the public sphere, the open terrain of political exchange and participation, completely evaporates. The spectacle destroys any collective form of sociality—individualizing social actors in their separate automobiles and in front of separate video screens—and at the same time imposes a new mass sociality, a new uniformity of action and thought. On this spectacular terrain, traditional forms of struggle over the constitution become inconceivable."[153]

They observe that the political sphere is dissolving as a result of individual isolation in cars and in front of separate screens, subsequently any form of political resistance becomes unimaginable rather a mental uniformity seems to persist. Thus this seems to support Sennett's claim. Though from our perspective it makes the following negation even stronger. We have seen numerous examples how virtual spaces are constructed in order to facilitate communication and sharing in common within the concept of Democratizing Innovation. But the most significant of these spaces are no doubt the examples from the very beginning of this paragraph namely Creative Commons[154] and Soruceforg.net[155] of which the latter openly declare itself to be an interface designed to connect user-innovators to projects, and hence connect them to other user-innovators. Thus though the geographical space forms dead space, 'living' space seem to form rapidly elsewhere in non-geographic spaces due to Democratizing Innovation. And examples of more humble scale such as iStockphoto and Apache are evidence that Democratizing Innovation facilitate and even encourage interaction in the communities. Apache through open chat discussions and iStockphoto even by sporadically taking back some geographical space when hosting the offline events iStockalypses. Thus as opposed to inducing restraint from social interaction Democratizing Innovation seems to facilitate social

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[152] Sennett p. 14
[153] Hardt & Negri (2000) pp. 321-322
[154] Creative Commons (2016)
[155] Slashdot Media (2017) soruceforge.net/about

interaction and formation in common, through speech and collaboration. Furthermore the phenomenon is increasingly widespread, thus in the following we will introduce the last concept of *multitude*, which will pave the ground for a further insight into our suspicion that Democratizing Innovation forms a new paradigmatic tendency towards (a new) democracy, as we will learn that the multitude is closely related to biopower.

6.3   Democratizing Innovation – configuring a multitude

When establishing the values inherent to Democratizing Innovation we briefly brushed upon the concept of plurality in connection to the concept of action. As we leaned plurality according to Arendt scaffolds action as "action would be an unnecessary luxury … if men were endlessly reproducible repetitions of the same model."[156] Likewise we learned by reading Sennett that Res Publica signifies the public obligations creating community ties amongst strangers because,

> "The stranger himself is a threatening figure … [thus] Res Publica stands in general for those bonds of association and mutual commitment which exist between people who are joint together by ties of family or intimate association; it is the bond of a crowd, of a "people".[157]

Thus the diversity of man seems to be of significance, in the first case as a positive effect creating the demand for action in the second case diversity is negative which raises a demand for the enforcement of a Res Publica to create a bond of commitment amongst strangers. Nonetheless we find it productive to our understanding of Democratizing Innovation to unfold an understanding of *the multitude*, because as we shall see the multitude forms as a productive resistance as that we observed as Res Publica earlier and moreover in the Age of Empire multitude is held within and resisting Empire as a bio-political figure.[158] Thus by establishing user-innovators of Democratizing Innovation resembling the multitude we may come yet one step closer in our conceptualization of Democratizing Innovation as a paradigmatic tendency towards (a new) democracy.

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[156] Arendt, (1958) p. 8
[157] Sennett, (1974) p. 3
[158] Hardt & Negri (2004) p. 101

When turning to Hardt & Negri we are able to develop an understanding of the multitude. In short "The Multitude is composed of a set of *singularities* – and by singularities here we mean social subjects whose difference cannot be reduced to sameness, a difference that remains different."[159] This multitude however cannot be compared to groupings such as 'the people' a 'mass, crowd or mob'. Beginning with 'the people' this term signifies a reduction of a group to a unity of one people of fore instance a nation, thus forming one united body of the many. The 'mass, crowd or mob' though they concern some sort of plurality these terms, according to Hardt & Negri, does not maintain the singularity of the individual social subject, rather "their difference so easily collapse into the indifference of the whole"[160] And even more importantly the 'mass, crowd or mob' signifies a subjectivity which is fundamentally passive incapable of action of their own accord. In other words what we observe here is an interpretation of the crowd that call for leadership. Conversely "The multitude is an internally different, multiple social whose constitution and action is based not on identity or unity (or, much less, indifference) but on what it has in common."[161] Thus 'the common' and the production of the common is essential, because "the challenge posed by the concept of the multitude is for a social multiplicity to manage to communicate and act in common."[162] However this insight into the concept of the multitude sheds new light on our previous observations of the creative communities, which have been generated by Democratizing Innovation the Internet and digital globalization. These communities seem almost to be direct images of this understanding of the multitude because they build on and are rebuild on what the multiple share in common. (Though we have to notice, in making the resemblance of the multitude and Democratizing Innovation. We are to some extend reducing the concept of the multitude to a unity of those who engage in Democratizing Innovation. Conceptually this is in conflict with the multitude as it is not a defined unit, however since Democratizing Innovation according to our previous analysis does not per se denote a defined unity but rather a political philosophy of public action present in the creative common we take the liberty to continue claiming this resemblance.) Furthermore from this insight we must also revise our understanding of the crowd explicated by Howe, and reform our perception towards that of the multitude. Because as

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[159] Hardt & Negri (2004) p. 99
[160] Hardt & Negri (2004) p. 100
[161] Hardt & Negri (2004) p. 100
[162] Hardt & Negri (2004) p. xiv

Howe draft the crowd, we have leaned that the crowd of innovators in fact act of their own accord. Since action of own accord seems to be a trait belonging to the multitude, we believe that when Howe uses the term crowd this stands to be revised. In our case of establishing a political conceptualization of Democratizing Innovation and the crowd of user-innovators, we believe they form a multitude due to their inherent ability to act on own accord. This is further established by examples from Hippel. Hippel describes innovation communities, where contributors create in accordance with their knowledge hence act on their own accord and moreover within the limitations of their knowledge as subjects of inherent difference. We observe this as much medical equipment, fore instance is created by surgeons who experience a specific problem and invent a new tool to solve the problem.[163] Another example is kite surfers who modify existing equipment to increase safety, capabilities and surfer experience, modifications that are copied and used by producers of surfing equipment.[164] A third example is the mountain biker who invents a specific strap to carry a bike, but at the same time allows for a quick release if necessary in case he falls and need to discard of the bike fast.[165] All inventions made possible because of unique knowledge, knowledge that the specific person has compiled through education, personal experience, chance etc. What should be noticed is that the inventions are created as consequence of a conjuncture of a person's knowledge and a certain context. Thus a different knowledge and context would yield something different. Or as Arendt's remarks "Plurality is the condition of human action".[166] Because all humans are the same, but in such a way "that nobody is ever the same as anyone else who ever lived, lives or will live"[167] thus forming a multitude rather than a multiplication of 'one man'. As such we notice that the creative powers forming Democratizing Innovation seems to resemble the multitude because Democratizing Innovation emerges from plurality and the activation of a multiplicity of unique knowledge. The same goes for Howe's description of the billion, namely the creative power of those who are connected to the web[168] posing a billion opportunities to innovate. Thus we seem to be able to make a comparison of Democratizing Innovation and the multitude, leading us not only to revise the concept of crowdsourcing but more importantly

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[163] Hippel (2005/A) p. 30
[164] Hippel (2005/A) pp. 103-104 & 124-125
[165] Hippel (2005/A) p. 35
[166] Arendt (1958) p. 8
[167] Arendt (1958) p. 8
[168] Howe (2008) p. 99

allowing us a deeper insight into the inner workings of Democratizing Innovation as a multitude of fundamental different action.

This also signifies the end of the first part of our analysis where we have attempted to construct a conceptualization of Democratizing Innovation by way of political concepts gathered from Arendt and social conventions from our reading of Sennett and lastly introducing the multitude to understand how Democratizing Innovation form. The findings we will summarize in the next paragraph giving a short subset.

6.4   SUBSET – Democratizing Innovation politically conceptualized

We do not claim to be able to generalize on all innovation communities held by the concept of Democratizing Innovation. However we have established that we believe to be able to consider Democratizing Innovation as general phenomenon and human condition. We have don this by showing the extensive diversity of the concept and the immense development and growth of the phenomenon during the past decades. Furthermore we have also established that Democratizing Innovation trough a construction of mirror images resembles structuring structures of the political realm conceptualized in *The Human Condition.* Thus we believe us able to conclude there seem to be a political philosophy of public action present in the creative commons of Democratizing Innovation. Furthermore we have shown how we believe these structuring structures to govern the realms of Democratizing Innovation intrinsically trough values such as action, freedom, equality, obligation, excellence and negotiation as we understand these concepts from a reading of *The human condition.* Furthermore we have shown how structuring structures of a *Res Publica* seem to manifest both intrinsically and extrinsically as structures of resistance towards interference with Res Publica. Finally we believe to be able to arguably make plausible that Democratizing Innovation form and structure as *the multitude*. Moreover by introducing the multitude we are able to graps how the structuring structures form not as a unity but rather in common, communication and sharing. By this we mean successfully to have augmented how we are able to establish Democratizing Innovation as a multitude of social subjects; who share a philosophy of political action; forming a common; tied together and direction by Res Publica of resistance; instigating innovation based on a multitude of plurality and the activation of a multiplicity of unique knowledge.

Thus we commence with an analytical introduction of innovation, which may at first seem a bit out of place. However as we have come to know multitude as plurality of difference and as innovation forms the difference materializing as 'the new'. This development of innovation will hopefully prove relevant in the scope of our entire agenda. Namely the agenda of giving a critical review of Democratizing Innovation, showing how Democratizing Innovation appear as a multitude of productive resistance entailing a paradigmatic tendency towards (a new) democracy in global economy and the regime of Empire.

7   Innovation – towards (a new) democracy

The purpose of this paragraph is to build a case which shows that innovation as a concept does not belong to economy, however strong the past decades of economically directed innovations schemes seems to convince us otherwise. We mean to give evidence that the idea of innovation as servant of economy merely build on a social construct. Furthermore the aim is to re-conceptualize innovation per se as a conditioning force which on its own form a driving force of 'the new', a priori neither better nor worse only different, which enable us to redirect the initial understanding of Democratizing Innovation as a democratizing of innovation, towards a conceptualization which works both ways. Until now we have discovered that political values belonging to the realms of ancient Greece can be seen reflected in the dynamics of Democratizing Innovation. Likewise, we have determined that contemporary tendencies of detachment from the public realm, does *not* seem to be the dominating tendency in the creative communities of Democratizing Innovation. Also we know that innovation due to the demands of economy has become a commodity in demand, and thus we must envision innovation being influenced by economic fluctuations. However even though Democratizing Innovation is a contemporary phenomenon it seems to mirror values yielding from past eras and simultaneously be dictated by present economy. Though turning to the concept of innovation, it seems that innovation paradoxically has stayed intact and always been constant, as 'the new'. Why, in the following we will focus solely on the concept of innovation in order to fulfil the above agenda. Firstly we will briefly introduce how we comprehend innovation as a concept, which has stayed constant. Secondly we will build an understanding of the tie between innovation and economy, a connection, which has till now been mentioned as a com-

monality but not explained neither challenged. Thirdly we will develop the concept as a separate force, which paradoxically is described best as a constant difference.

7.1   Innovation – a case of social construction

As a concept innovation has essentially stayed the same, and yet through time it has been tied to several fields and been held differently in opinion. Etymologically innovation originate from Greek, kainos, 'new', and was used in reference to ideas and abstract thinking, in the sense of "making new", "creating new mines" and "cutting into the new."[169] As we learned from Arendt 'the new' was held highly, in relation to action and associated with political life of ancient Greece. Leaping forward though, innovation or 'Innovatio' the term used in Medieval Latin, was often, though not consistently, used to describe inferior novelties and disturbance of the old traditions.[170] Thus, while innovation kept the essential meaning of novelty and thinking beyond tradition, acts of innovation were nonetheless considered distorting. For the past century however, innovation has come to hold a dominant position in relation to economy and production, in fact in many cases innovation seems to bee *the* thing organizations depend on to uphold a continuing surplus.[171] This development was ignited by the industrial revolution. As stated by a citation from *Empire* by Hardt & Negri in the very beginning of this manuscript the common conception is that three economic paradigms have occurred since the Middle Ages. However the emergence of the second of these paradigms set in motion infinite number of capitalistic ventures due to new inventions and the creation of new markets emerging in the industrial revolution. Subsequently in the 1940's Schumpeter introduced the theory on Creative Destruction describing capitalism as an evolutionary process, where Creative Destruction appear as a means to create 'the new'. Thus in the following we will establish how Innovation has been conceptualized as belonging to economy.

The reason for choosing Schumpeter's theories on Creative Destruction and Creative Response as basis for our attempt to illustrate innovation becoming servant to economy is merely a social construct, is the fact that Schumpeter to date is acknowledged for having created the most interesting theory on innovation and entrepreneurship and as such nearly a cen-

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[169] Godin (2012) p. 6
[170] Ladner (2004) p. 44
[171] Chia (1999), p. 209

tury later[172] it has still not been debunked or entirely replaced by any *one* other theory.[173] Bearing in mind we do not attempt to disprove the theory but merely challenge it to free innovation from economy, we leap forward to show how Schumpeter tie 'the new' to economy as a structure restructuring from within, hence inherent to capitalism:

> "The opening up of new markets, foreign or domestic, … illustrate the same process of industrial mutation – if I may use that biological term – that incessantly revolutionizes the economic structures *from within*, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in."[174]

In the theory two things are established. First it is established that "Creative Destruction is the essential fact about capitalism"[175]. Secondly Creative Destruction destroys old capital structures and gives way to and creates the new capital structures. In other words Creative Destruction is concurrently an undermining and cultivating force that drives economy. Thus intrinsic to capitalism is a direction towards tearing down the old in favour of 'the new'. Consequently in the second economic paradigm a tie between 'the new' (innovation) and capitalism emerges or becomes articulated and theorized on. The tie between economy and innovation becomes further persuasive by Schumpeter's later correlation between the entrepreneur and innovation, when he define the entrepreneur in his theory on Creative Response:

> "Seen in this light, the entrepreneur and his function are not difficult to conceptualize: the defining characteristics is simply the doing of new things or the doing of things that are already being don in a new way (innovation)."[176]

Thus the entrepreneur personifies innovation, as the defining characteristic of the entrepreneur is conceptualized and identified as innovation. Consequently as the entrepreneur is a character which by "getting new things done… produces consequences that are an essential part of

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[172] Swedberg (2007) p. 25
[173] Swedberg (2007) p. 2
[174] Schumpeter (1942) p. 83
[175] Schumpeter (1942) p. 83
[176] Schumpeter (1947) p. 151

capitalist reality"[177], the characteristics of innovation gets inescapably tied to economy. Subsequently innovation becomes destined to partake as the Creative Response leads to Creative Destruction, which sets in motion another Creative Response leading to Creative Destruction, etc. Furthermore in the union of innovation and economy as it is developed by Schumpeter innovation becomes a concept, which in relation to capitalism drives economy to destruct and re-produce itself continually. In this conceptualization we learn two things. First innovation is constructed in a way, which makes it seem like an economic concept, but it is not proven to be limited to economy. Secondly we learn that the effect innovation has on economy in this conceptualizations in fact mimic the effect we know as biopower, in that innovation forces a constant reconfiguration of economy in a motion of destruction and re-production which can be translated into power and resistance. However before going any further we return to innovation and attempt to establish an alternate conceptualization of the concept relating to Democratizing Innovation.

7.2   Innovation – essentially a constant difference

What is noticeable from Schumpeter's construction is that innovation forms a relation to economy and as such innovation materializes as a conditioning force in terms of Arendt's terminology. Simultaneously as a philosophical conception of thought innovation is de facto immaterial and never actual actuality. In Deleuzian terms innovation could be explained as *'a state of becoming'*[178] or *'lines of flight'*[179], as such as 'that-which-is-about-to-be'. Because becoming denotes the state of being open to something else, and is intangible like the act of contemplation. In fact the "… general affirmation of becoming: thought is becoming. (Although the word 'is' becomes problematic here, for in a world of becoming what something 'is' is always open to what it is not yet."[180] Likewise the idea of lines of flight describes the tendency to continually moving beyond status quo and finding new paths because: "Lines of flight, for their part, never consist in running away from the world but rather in causing runoffs, as when you drill a hole in a pipe; there is no social system that does not leak from all directions,"[181] Thus lines of flight are not consistently paths forward, rather lines of flight are

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[177] Schumpeter (1947) p. 152
[178] Colebrook, (2007) p. 126
[179] Deleuze (2004) p. 225
[180] Colebrook, (2007) p. 126
[181] Deleuze (2004) p. 225

like water escaping and finding passage where there seems to be non. Likewise we understand innovation which denoted that which is open ended and as such is not and *'is'* rather a *'becoming'* Further more Innovation is not predestined like lines of flight innovation seems to run off, and leak contingently according to the contextual context manifest as neither better nor worse only difference. As such innovation is always present but *only* as the thinkable potential of becoming different, thus not material. Conceptualized like so innovation does not belong to any one thing or concept, innovation incontrovertibly stands alone only as constant difference, however fundamentally different form the difference we know as multitude, but as a thinkable potential of *becoming difference*. Innovation materializes as 'the new' in contextual context enforcing difference onto whatever innovation is imposed on and as such condition the world by difference.

Consequently we show that innovation only recently has been tied to economy as a servant or as driver of economy, dependent on the perspective and that it merely builds on a social construct. However we believe in resent years this has led to an overemphasis on innovation as an economical scheme entailing business advantage, leading to an oversight of innovations other potentials. Following our conceptualization of innovation as incontrovertibly standing alone only present as constant difference, which may be imposed on whatever is undergoing innovation. Always present as the thinkable a potential of becoming different. We raise the question if Democratizing Innovation solely denotes that democracy is imposed on innovation or if innovation in fact is imposing on democracy as well. As innovation configures as 'the new' this suspicion seem to win merit. Based on the previous analysis bringing to light the structuring structures of Democratizing Innovation thus conceptualized mirroring political values and conventions, which originally was also tied to 'the new', as we remember that the capacity of beginning something new is incremental to political being and the human condition. We believe able to assume innovation to impose on democracy constituting Democratizing Innovation as a paradigmatic tendency entailing a re-politicizing of the collective common through innovation. Thus we reach our final analytical discussion of Democratizing Innovation as a multitude challenging the regime of Empire.

8 Democratizing Innovation – challenging the age of the Empire

In the following we will introduce the final layer to the analysis of Democratizing Innovation by introducing the concept of the Empire and thus further build the argument that Democratizing Innovation is a paradigmatic shift towards (a new) democracy and that Democratizing Innovation manifest as a global form of organization and identity produced by shifts in the substructures of economy, nation-state and politics. However before entering into the actual analysis of Democratizing Innovation in relation to Empire we will briefly introduce the concept of immaterial labour, as it also relates to and in part illustrate and explain the concept of Democratizing Innovation.

8.1 Democratizing Innovation – an instance of immaterial labour

The suspicion of this thesis is that Democratizing Innovation is more than a scheme of innovating in democratic collaboration, Democratizing Innovation per se, but in fact is or may be the early indications of an entirely new paradigm of human organization. When introducing this idea, and turning to the Empire, we must though acknowledge an obvious kinship between Democratizing Innovation and the explication of immaterial labour. Essentially immaterial labour or immaterial production can be divided into three types. Firstly immaterial labour covers labour which utilize and incorporate new technologies of informatization in ways, which fundamentally changes the modes of production and shifts the output towards immaterial services. Even actual material output is mixed with and becoming immaterial to some extend. Secondly it concerns labour, which handle creative and intelligent tasks analytically such as knowledge work and furthermore perform routine tasks of symbolic character. And thirdly and finally immaterial labour handles and produces affects. Affects meaning the production of different forms of networks, social organizations, and collective commons,[182] similar to those we recognized in the paragraph of the multitude. In short bio-power, via concrete or virtual human contact, and as such realized by actual bodily action.[183] But more important, what distinguishes immaterial labour from the classical understanding of work as a means to and end, be it monetary or otherwise, immaterial labour is not necessarily dictated from or by an outside authority, rather it is directed by an immanent logic inherent to the specific ac-

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[182] Hardt & Negri (2000) p. 293
[183] Hardt & Negri (2000) p. 293

tivity. Thus immaterial labour is still dependent on brains and bodies to create value but these a not necessarily provided and directed by capitalism.[184] In light of this explication of immaterial labour it would be easy to declare Democratizing Innovation an instance of immaterial labour, either with or without the preceding construction of a value-framework familiar to Democratizing Innovation. We thus acknowledge that Hippel's elaboration on Democratizing Innovation can provide examples, which employ all three types of immaterial labour. Thus when in the following we refer to production to an extend this production is an expression of immaterial labour. However, though we acknowledge Democratizing Innovation can be analytically constructed and categorized as immaterial labour. We, as mentioned in the beginning of this paragraph suspect that Democratizing Innovation may be the indications of en entirely new paradigm of organization in collective common. Giving credence to the concept of the Empire as an adequate theory on the contemporary human world construction, the notion is that Democratizing Innovation seems to be the counter-power of the multitudes opposing the all-enclosing bio-power of the Empire. Thus we proceed with an introduction to the concept of Empire and a further investigation into the concept of Democratizing Innovation as a new paradigm organizing commons of biopolitical resistance.

8.2 Empire and the opposition of a multitude of Democratizing Innovation

As we have previously stated the argument of the thesis hinges upon a previous acceptance of Empire as a current world order. Thus in the following we will move forward unfolding an insight into the regime of the Empire while relating this insight to our previously established knowledge on Democratizing Innovation, thus reaching a new comprehension of Democratizing Innovation having a third potential besides the two potentials we already know. It will become obvious how Democratizing Innovation appear to be a paradigmatic tendency towards (a new) democracy. Thus this paragraph will continue to be foremost analytical succeeded by a critical discussion in the following paragraph. Accordingly we embark on tracing Empire in relation to Democratizing Innovation:

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[184] Hardt & Negri (2000) p. 294

"In Empire, as indeed was also the case in modern and ancient regimes, the constitution itself is a site of struggle, but today the nature of that site and that struggle is by no means clear. The general outlines of today's imperial constitution can be conceived in the form of a rhizomatic and universal communication network in which relations are established to and from all its points or nodes. Such a network seems paradoxically to be at once completely open and completely closed to struggle and intervention. On the one hand, the network formally allows all possible subjects in the web of relations to be present simultaneously, but on the other hand, the network itself is a real and proper non-place. The struggle over the constitution will have to be played out on this ambiguous and shifting terrain."[185]

Thus, Empire is to be understood as a rhizomic battlefield, materializing as a vast communication network encompassing all universally and simultaneously non actually, since Empire is neither place nor final in its constitution. In this initial understanding of Empire as an infinite 'infinality' we find an instant kinship with the human condition, which we have come to know as an endless conditioning the human is subjected to, by a continuing self-conditioning due to a constant production of new conditions. A constitution we have also tied to Democratizing Innovation. And as we also briefly touched upon earlier in regard to the overtaking of the political by the social, the implication of Empire are not to be mistaken, put briefly, "In Empire and its regime of biopower, economic production and political constitution tend increasingly to coincide."[186] Thus aside from emerging as a new regime of biopower, Empire challenges how we think of 'economic production' and 'political constitution' as separable spheres of human activity. Hence the reference to the relocation and elevation of the social and private economy to matters of political concern also introduced earlier.

Consequently in many cases the nation-state and the national constitution has been surpassed by economic power, simultaneously we observe the nation-state are being challenged by how the multitude organize in and subdivide into transnational groupings, by Democratizing Innovation it seems they earn back some of the sense of belonging they have lost with the erosion of the state. This is instigated as we learned Democratizing Innovation seems to present struc-

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[185] Hardt & Negri (2000) pp. 319-320
[186] Hardt & Negri (2000) p. 41

tured by structures similar to political concepts and Res Publica. Though we established Res Publica through a negation of Sennett's sentiment, we simultaneously believe Sennett's claim to be valid and adequate in a description of a current state. What we propose is thus what seems to be a concurrent motion of decay and reproduction of Res Publicas orchestrated by the multitude. In short this concurrent motion of decay and reproduction forms the challenge Empire entails in terms of 'economic production' and 'political constitution'. Following this train of thought: Remembering the sketching of Democratizing Innovation where we observed Democratizing Innovation seemed to have a double potential; adding that we in the previous have seen how Democratizing Innovation forms as commons of shared interests and we have been able to construct a political conceptualization of the structuring structures of Democratizing Innovation. Thus enlightened we now reach a position from where we propose Democratizing Innovation having a third potential. Hence we propose that; as well as an innovation scheme where users become producers due to intrinsic and extrinsic motivation; a new business opportunity by simultaneously disrupting economy and proving a highly promising business advantage; Democratizing Innovation pose a third potential as a paradigmatic shift towards the production of (a new) democracy. As such Democratizing Innovation seems trough a multitude of resistance to be able to innovate democracy.

Returning to the development of the Empire. In negative terms the age of Empire denotes degeneration of the world as we know it, qua diminishing power of the nation-states, subsequently followed by disband of restrictions on international markets and a fading out of passionate opposition amongst state subject.[187] Consequently in this doomsday scenario the age of Empire forewarns the erosion of individual identity in terms of national and community ties, and a general weakening of national regulation of international markets as they grow increasingly towards total globalization and hence surpass nations in power. However,

> "…we insist on asserting that the construction of Empire is a step forward in order to do away with any nostalgia for the power structures that preceded it and refuse any political strategy that involves returning to that old arrangement, such as trying to resurrect the nation-state to protect against global capital."[188]

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[187] Hardt & Negri (2000) p. 13
[188] Hardt & Negri (2000) p. 43

In other words, despite the Empire in negative terms depict disruptive and enormously negative power; the age of Empire in more moderate terms announces a confrontation with and culmination of past regimes of world order and economical organization and the emergence a new paradigmatic shift,[189] towards a world of *global* economy. In fact remembering the statement from the very introduction, that though globalization has peaked regarding physical production "globalization is not heading into reverse. Rather, it is entering a new phase … [of] … *Digital globalization: The new era of global flows*."[190] Or in terms of this thesis it seems that globalization is becoming increasingly determined and produced by a multitude of Democratizing Innovation. However this aside what is incremental to the understanding of the age of Empire is, the Empire is not a return to past structures of the empirical times and nations. Empire is the structuring powers of globalization. It would be wrong though to surmise globalization as a final entity, more precisely globalization is volatile and open ended consisting of myriads of processes not unlike the power of Empire, which directs it.[191] In this sense Empire must be understood as "the center that supports the globalization of productive networks"[192] and concurrently Empire attempts to engulf all power relations within the Empire construct while also controlling and police against internal rebellious forces.[193] Thus Empire is in this sense a conceptual framework, and not a metaphor bridging a correspondence between present and past world orders.[194] Nonetheless the age of Empire is, according to Hardt & Negri, the (inevitable) consequence of the end of The Cold War, which appointed liberal economy world monopoly[195] and deemed predominance to westernized forms of political control[196]. However, as a conceptual framework the Empire does not denote a place bound power centre.[197] Rather the Empire is constituted firstly by the lack of borders. As such the Empire operates despite of any borders beyond space and existence mastering all civilized space.[198] Secondly, all though the Empire is introduced as the structural succession of the post Cold War organization, the structuring structures of the Empire should not be regarded as sequential events fixed in time. More specific the Empire is "a regime with no temporal boundaries

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[189] Hardt & Negri (2000) p. 8
[190] Manyika, J. Et. Al. 2016
[191] Hardt & Negri (2000) p. xv
[192] Hardt & Negri (2000) p. 20
[193] Hardt & Negri (2000) p. 20
[194] Hardt & Negri (2000) p. xiv
[195] Hardt & Negri (2000) p. xi
[196] Hardt & Negri (2000) pp. xiii-xiv
[197] Hardt & Negri (2000) p. xii
[198] Hardt & Negri (2000) p. xiv

and in this sense outside of history or at the end of history."[199] Thirdly the "Empire presents the paradigmatic form of biopower." [200] As it knows no boundaries the powers of the Empire saturates all levels and corners of society, simultaneously creating the world, which it regulates [201] and thus functions by a "governance without government."[202] Essentially Empire as the new paradigm, constitutionally seems to pre-assume its own power structure, meaning, the "exercise of power is affirmed from the outset, as the effective a priori of the system."[203] Materializing in regard to every human being and citizen, who in turn becomes measurable only by the standard of the Empire. Due to the effect of "governance without government"[204] "…means of the private and individual apprehension of values are dissolved: with the appearance of Empire, we are confronted no longer with the local mediations of the universal but with a concrete universal itself."[205] As such every aspect of the world, morally, juridical and ethical is set in an alternate dimension, which seems to erase the individual in favour of universal. However, remembering that Empire is the paradigmatic form of biopower, in the DNA of Empire are the masses, every human being, which form the creative force of a multitude. Being, as they are simultaneously uniform by the force of Empire and difference due to plurality, the masses of the multitude embody the oscillating property, of power and resistance, inherent to biopower. More specific biopower is signified by the democratic command as of the citizens, understood as an intrinsic (self)control system of Empire embedded in and actualized by the activity and embodiment of the individual citizen.[206] Meaning, that the "creative forces of the multitude that sustain Empire are also capable of autonomously constructing a counter-Empire, an alternative political organization of global flows and exchanges"[207]

As Empire manifest as an un-situated power structure saturating all, also Democratizing Innovation is subject to Empire. However as Empire is simultaneously absolute power and immanent in production through governance without government Empire is continually reproduced. Hence Empire is "defined by its virtuality, its dynamism, and its functional inconclu-

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[199] Hardt & Negri (2000) p. xv
[200] Hardt & Negri (2000) p. xv
[201] Hardt & Negri (2000) p. xv
[202] Hardt & Negri (2000) p. 14
[203] Hardt & Negri (2000) p. 14
[204] Hardt & Negri (2000) p. 14
[205] Hardt & Negri (2000) p. 19
[206] Hardt & Negri (2000) p. 23
[207] Hardt & Negri (2000) p. xv

siveness."[208] Moreover Empire is legitimized through production. Subsequently the only way to counter Empire is through production and reproduction. Here lies the importance of the creative communities of Democratizing Innovation as they form we are able to establish Democratizing Innovation as a multitude we are also inclined to notice "a positivity of the *res gestae* of the multitude, an antagonistic and creative positivity. The deterritorializing power of the multitude is the productive force that sustains Empire and at the same time the force that calls for and makes necessary its destruction." [209] Thus when Democratizing Innovation form in productive networks as a multitude of action in common, we interpret that Democratizing Innovation in fact simultaneously resists and oppose Empire trough productions and engage in the production and re-production of Empire. Furthermore this reproduction though antagonistic essentially holds a creative positivity and thus directed by excellence forewarns a motivation towards the better. Examples of this antagonistic resistance we gather from examples such as iStockpoto and Qt. In both cases the creative communities directly resist conventions, which does not apply to the community. And significantly in the case of Qt we learn that the conventions of the community in fact are applied to Qt instead, as Qt is reregistered from private licensed software to a GLP. Likewise we are prone to ague that other conventions and values from within the structuring structures of Democratizing Innovation, such as the peer mentality and negotiation through speech, free participation in communication and action within common sharing, arguably are likely to manifest in this reproduction. This is supported by the observation that according to the age of Empire "the multitude will have to invent new democratic forms and a new constituent power that will one day take us through and beyond Empire."[210] Thus in spite that Empire:

> "From one perspective … stands clearly over the multitude and subjects it to the rule of its overarching machine, as a new Leviathan. At the same time, however, from the perspective of social productivity and creativity, … the hierarchy is reversed. The multitude is the real productive force of our social world, whereas Empire is a mere apparatus of capture that lives only off the vitality of the multitude"[211]

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[208] Hardt & Negri (2000) p. 41
[209] Hardt & Negri (2000) p. 61
[210] Hardt & Negri (2000) p. xv
[211] Hardt & Negri (2000) p. 62

Seeing that the Empire forms both a power structure and manifest as a parasite on the multitude, novel communities of production will necessarily prove to be new feedstock for Empire to feed on. Thus, as the multitude in general entail an automatic reproduction of Empire, with the emergence of Democratizing Innovation as part of the multitude we believe Democratizing Innovation to be producing and innovating democracy by way of reproducing Empire. This believe is founded in the preceding analysis proving that Democratizing Innovation can in fact be conceptualized as communities which mirror political values and community ties resembling a Res Publica. Moreover we believe Democratizing Innovation as a paradigmatic shift, have been put in motion not only by the Internet but also by globalization. As such Democratizing Innovation is producing and re-producing globalization and Empire according to the structuring structures immanent. Because "Globality … should not be understood in terms of cultural, political, or economic *homogenization*. Globalization, like localization, should be understood instead as a *regime* of the production of identity and difference."[212] The manifestation of globalization in other words enforce a rearrangement of categories thus producing identity and difference as such globalization produce the multitude and vice versa. Previously we have in fact seen this in the case of Sourceforge.net. This open source community is an example of a multitude created by the Internet and globalization, which reproduce identities and difference on global scale. Understanding that production is structuring identity and difference as well as actual production of artefacts, while Sourceforge.net includes costumers when they define the scope if Sorceforge.net[213] they in fact also seem to produce the identity of those who do not partake directly in the community as well as participants of open source. In other words "the plural multitude of productive, creative subjectivities of globalization … are in perpetual motion and they form constellations of singularities and events that impose continual global reconfigurations on the system."[214] Hence we are prone to ague that Democratizing Innovation by reproducing the Empire, simultaneously reinstate the values pertaining to the social subject of the common, namely the values previously analyzed as structuring structures of Democratizing Innovation and hence the multitude. Subsequently Democratizing Innovation forms 'new' global 'locality' and a sense of belonging by way of creative global communities. Consequently:

[212] Hardt & Negri (2000) p. 45
[213] Slashdot Media. (2017) Sourceforge.net/about
[214] Hardt & Negri (2000) p. 60

"A new sense of being is imposed on the constitution of Empire by the creative movement of the multitude, or really it is continually present in this process as an alternative paradigm. It is internal to Empire and pushes forward its constitution, not as a negative that constructs a positive or any such dialectical resolution. Rather it acts as an absolutely positive force that pushes the dominating power toward an abstract and empty unification, to which it appears as the distinct alternative. From this perspective, when the constituted power of Empire appears merely as privation of being and production, as a simple abstract and empty trace of the constituent power of the multitude… the two are no longer different.[215]

In the above passage the possible outcome of Empire is obvious. The claim is that as Empire is constantly governing the multitude and the multitude is reproducing Empire consequently 'the two' will eventually merge and no longer be different, and as such 'the two' merging 'into one'[216] presenting as an alternate paradigm. Since we have already argued plausibly towards Democratizing Innovation as a multitude of politically structured commons. Subsequently we find yet another argument in favour of our suspicion that Democratizing Innovation is a paradigmatic tendency toward (a new) democracy. Moreover the reason for placing the brackets around (a new) becomes obvious again, as Empire and multitude forms a process (however not dialectic) so does democracy, being continually produced and re-reproduced by the multitude that constitutes this democracy. In reference to the above citation, we feel the need to point out the power pushing forward is neither dialectic as it does not form as an action-response-action etc. but rather manifest as a constant presence nor does the push forward signify a motion from a negative to a positive, in light of this we notice that Democratizing Innovation is a paradigmatic tendency toward (a new) democracy forewarning neither better nor worse only difference in the sense of the previous conceptualization of innovation. Hence the title *Innovating Democracy by Democratizing Innovation*. Acknowledging the inherent difference of the multitude, we must obviously assume the multitude presents other paradigmatic tendencies besides Democratizing Innovation as well, however since we previously

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[215] Hardt & Negri (2000) pp. 62-63

[216] 'The two' merging 'into one', is strictly speaking conceptually incorrect, because Empire is a structuring power and multitude is per definition *not* a unity but essential difference, thus the statement should be understood as metaphorically speaking of two concepts merging.

have established the magnitude of Democratizing Innovation, we are prone to believe the tendencies presently observed to be of some consequence. However Democratizing Innovation as a paradigmatic tendency toward (a new) democracy does not automatically forewarn the better. Due to the structuring framework of life, which is highly contingent and unforeseeable[217] so is any production of the multitude. However guided by Empire through governance without government and furthermore as we ague innovation of democracy will to some extend spring from the values of Democratizing Innovation we suspect innovation of democracy entails the re-production of the values and conventions of the multitude of Democratizing Innovation. Thus we have eminent grounds for believing that the paradigmatic tendency we predict will at least to some extend be an attempt toward democracy directed by values such as excellence, equality, merit as they were conceptualized to appear in Democratizing Innovation previously.

Seeing that we have been able to construct at political conceptualization of Democratizing Innovation and by negation proved it likely that Democratizing Innovation represent traits of Res Publica. Thus Democratizing Innovation appearing directed by inherent values and conventions, which mirror the structuring structures of the public realm, subsequently directing the multitude of production and re-production. We have reached the point where we are able to elaborate on and discuss how Democratizing Innovation appear as a paradigmatic tendency toward innovating democracy.

8.3   How Democratizing Innovation appear as a paradigmatic tendency

According to the statement from the McKinsey & Company annual rapport 2016 Globalization is upon us and has in fact transformed from pertaining primarily physical production towards increasingly concerning immaterial production qua global digitization. Deeming from the development of the regime of Empire, globalization entails serious ramifications to the conventional world order. Due to the diminishing power of the nation-state in a regime where global economy gain increasing dominance by its ability to transcend geographical limitations, economy increasingly pose as a rival to national power and hence national legislations. In this context we are able to re-construct Democratizing Innovation in a perspective where it

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[217] Hardt & Negri (2000) pp. 60-61

does not only concern the fact that global organizations come to have a global workforce as a consequence of the Internet, but also Democratizing Innovation manifest as a potential towards innovating democracy.

Democratizing Innovation also appears as three forms of political potential. The nation-state, economy and the multitude are all agents in Empire and as such Democratizing Innovation as a political philosophy of action in common sharing pose a potential for all agents to engage and utilize Democratizing Innovation in production and re-production of Empire. Thus when both Hippel and Howe describe that Democratizing Innovation is and opportunity for businesses to seize in the attempt to gain business advantage we propose to widen the scope of utilization to include a conscious production of the common either from the perspective of the social subject or the nation-state. As we have learned already Democratizing Innovation manifest through a freedom, which entails an obligation of participation, however it does not apply any moral pressure to participate and or compensate when benefits yield from the innovative output of Democratizing Innovation. Thus through an inherent spill over effect Democratizing Innovation is already involved in production where economic incentives seems to be secondary. Furthermore this spill over is directed by the immanent values and conventions of Democratizing Innovation, which form a self-governing regime through amongst others participation, speech and negotiation as previously conceptualized. Seen that the inherent governance in some cases like iStockphoto and Qt transgresses the creative common, we observe Democratizing Innovation proving able as a multitude of resistance in global economy. Thus we see Democratizing Innovation appear as a spontaneous reconfiguring of regulating powers such as those previously belonging solely to the nation-state. In this perspective the multitude of Democratizing Innovation becomes the constituent representative of the social subject of global economy as a paradigmatic tendency towards (a new) democracy.

Moreover the apparent decay of the public realm, which we se portrayed by both Hardt & Negri and Sennett, which Sennett portray as tangibly erect in the manifestation of architectural dead space, seem to be revived in a virtual non-space of both the Empire and Democratizing Innovation forming a multitude of creative common, sharing and collaboration. Thus Democratizing Innovation seem to transform the general tendency of apathy and indifference, thus in fact appearing as a motivational driver towards an engagement in the public realm and

the common. Furthermore since we via Sennett have also learned of a psychological sort of short-sightedness in concern with the decay of the public realm, manifest in a tendency towards a self-centred and emotional measure of the world, where personality and personal convictions are weighed over traits such as skills, deeds and intentions. Supported by our development of the Empire, which entails that every aspect of the world, morally, juridical and ethical is set in an alternate dimension, which seems to erase the individual in favour of universal. We are faced with a conceptualization of the world where the individual becomes increasingly insignificant partly due to a self-imposed reduction and partly due to the effects of globalization. However we find the fact that Democratizing Innovation intrinsically is structured by a peer to peer mentality build on recognition of individual merits proving that a concurrent re-production of a more rational world measured by values such as intention and excellence may be plausible.

In this capacity of constituent representative a multitude directed by Democratizing Innovation also pose as a political potential for the individual social subject. Because as the nation-state declines the political significance of the single person dissolves as well, thus the single persons real influence on the constitution of the individual's context evaporates. The emergence of Democratizing Innovation as previously conceptualized and developed appears as a means to regain influence, however not in terms of voting on political representatives but in terms of reconfiguring governing structures of globalization trough immaterial production and re-productions of values and conventions in global commons. Thus through the materializing as a multitude of resistance Democratizing Innovation offers the social subject a potential of resistance in global economy. Not understood as a resistance of the good against an evil but merely the ability to resist in a regime of globalization and Empire, an ability, which was initially suspended from the social subject by the exact same regime.

9 Conclusion

In the previous we have proved it likely that Democratizing Innovation seems to appear structured by structuring structures as those we know and recognize from political theory, thus we believe us able to claim a political conceptualization of the structures inherent to the concept of Democratizing Innovation. As such we are also able to conclude that Democratizing Innovation appear as realms directed by political concepts such as, action, freedom, equality, excellence, speech and negotiation forming a philosophy of creative action. However we simultaneously refute a representation of Democratizing Innovation in form of a political body, rather we claim Democratizing Innovation form a multitude because of the magnitude of the scope of the phenomenon and moreover as Democratizing Innovation function through and by productive difference. Furthermore we ague that Democratizing Innovation holds, what seems to be a Res Publica. Opposed to Sennett's claim of a contemporary tendency of the Res Publica to decay caused by apathy and indifference, we are able to establish that Res Publica pertaining to Democratizing Innovation, thrive and is continuingly protected and is in fact also imposed beyond the creative communities by way of resistance. Thus we conclude that, concurrent with a contemporary decay of Res Publica as it manifest in the tangible world, a re-production and regeneration of a different Res Publica seems to materialize in the virtual non-place of global communities. Furthermore by building a case which arguably shows that innovation as a concept belonging to economy merely builds on a social construct, and that innovation per se can also be conceptualized as a conditioning force which on its own form a driving force presenting as a constant presence of a potential of becoming difference. Following we are able to reformulate the initial understanding of Democratizing Innovation as a democratizing of innovation, towards a conceptualization which works both ways. This lead us to conclude that Democratizing Innovation pose a (third) potential as a paradigmatic tendency towards (a new) democracy. Finally based on the assumption that Empire depicts the current state of globalization adequately, we are able to conclude that Democratizing Innovation appear as a multitude of productive difference instigating resistance in global economy and the regime of Empire, entailing a tendency towards innovating democracy. Moreover the following discussion allows us to conclude that Democratizing Innovation as a paradigmatic tendency towards (a new) democracy, appear as a potential which does not only pertain the

social subject, but also the nation-state and economy however not posing as a potential with an economic incentive, rather as a potential of restructuring structuring structures by way of productive resistance. However in regard to the social subject we can conclude Democratizing Innovation appears to constitute a potential for the subject to regain political influence, in a regime otherwise directed by economy, a power, which has surpassed the nation-state. Finally due to the immense scope of Democratizing Innovation we are prone to conclude that as a multitude of resistance forming a paradigmatic tendency. Democratizing Innovation pose the potential to produce and reproduce democracy on a global scale. Furthermore we are inclined to ague that this (new) democracy will build on the structuring structures of action, freedom, equality, excellence, speech and negotiation through communication and common sharing, as we have seen Democratizing Innovation appear in the preceding conceptualization. However due to the properties of Empire and multitude as forces of structuring structures merging and that they are essentially conditioned by contingency, truly we cannot predict or conclude a paradigmatic tendency towards neither better nor worse only a different democracy if at all – besides difference.

10 Postface

Seeing that Democratizing Innovation potentially pose a significant tendency where a multitude of productive social subject are able to reproduce democracy as we have hopefully argued substantially we cannot help to ponder on. These continuing reflexions we will share with you in this postface. However they should not be considered additional evidence to the preceding thesis rather merely as examples to how this thesis might prove relevant as other than an academician's attempt to prove worthy of a final degree. Thus we introduce three perspectives on how our preceding work on Innovating Democracy by Democratizing Innovation may prove relevant beyond the scope of this thesis.

10.1 Can you formally legislate and unionize in a global work place

The welfare state is build around employer-employee, nation-citizens, taxation and reallocation of resources in society to level out the divide between high and low income citizens, create job security, medical care, childcare and care for pensioners. In order to get this to work, welfare states have for centuries build legislations to define nation-citizens relations, in order to secure taxation, and employer-employee relations in order to place rights and liabilities, legislations protected and enforced by unions. However the digital globalization seriously challenge these legislations as they are built on the premise of national boundaries. Or rather the virtual communities of Democratizing Innovation transgress national boundaries in ways, which challenges the conventional way of thinking employer-employee, nation-bound citizens. On an individual level this challenges how to define and enforce union-rights and from a state perspective how to determine distribution of well-fare benefits. Seeing that global communities of Democratizing Innovation entail a blurring of national boundaries since the work place becomes global and the aforementioned relations are usually determined by national legislation. An increasing formation of global communities will eventually pose the question what national rules to follow if any. Because how do you, or can you even formally legislate and unionize in a virtual community where borders are metaphysical and inclusion/seclusion is determined by merit and participation – and will it at all prove necessary?

10.2 Brexit – national boundaries vs. global communities

Another interesting perspective we arrive at, by looking towards Brittan and the current events regarding Brexit. Brexit were motivated by British citizens frustration over the influence of Brussels and EU in British politics and law. Moreover an increasing pressure on British local economy blamed on immense immigration led to the Britons' vote to leave the EU. (Financial Times: Why did we leave EU and other FAQ's).[218] Considering what we have gotten to know about Democratizing Innovation as an emerging multitude of global production, the political development in Brittan becomes very interesting. From one perspective the situation can be interpreted as genuinely motivated by a wish to secure the British citizens' work and welfare. However factoring in that production is becoming increasingly immaterial and takes place in global communities of Democratizing Innovation amongst others, however not economically motivated we have previously argued them not to be inconsequential neither to global economy nor to nations states or politics pertaining to them. In light of this one cannot help to wonder if Brexit will in fact prove limited in effect if not even futile in a longer perspective. By closing the market and the national borders to migration of EU-citizens, Brittan may secure manual work and hence the economy pertaining to that (if one for the purpose of the argument, may divide economy as such). But in a world of digital globalization where national borders are eroding and transcended by virtual communities (and their values) and immaterial production, we suspect the political and economical incentives of Brexit might be challenged, seeing that the producing multitude of Democratizing Innovation will not be stopped by geographical borders. Thus the nation might legislate however we imagine both globalization and the producing multitude will resist.

10.3 3rd world countries the political underdogs

A third perspective we gather from the United Nation Framework Convention on Climate Change (CCC). One of the returning challenges on the convention is how to formalize agreements on how to reduce CO_2 emission globally, without crucially paralyzing economic growth in 3rd world and developing economies. In this sense CCC has experienced negotiations to collapse and nations being unable to reach agreement because especially nations pertaining to the 3rd world perceive themselves to have lacking political influence and hence see

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[218] https://www.ft.com/content/f1300fb4-3c5a-11e6-8716-a4a71e8140b0

their only option to be, not to cooperate. As we see Democratizing Innovation posing a paradigmatic tendency able to innovate democracy, we pose that Democratizing Innovation in respect to 3rd world countries might pose as a possibility to gain some sort of influence globally. However how to relate the potential influence to CCC, we are currently unable to develop. But CCC or not, by engaging in Democratizing Innovation and hence as social subjects of a multitude of resistance and reproduction, imagine Democratizing Innovation may pose as a potential for individual from the 3rd world to gain global influence. Though the nation per se will not gain influence, indirectly however one subject at a time the 3rd world may potentially become less of a political underdog?

Thus introduced three additional thoughts on how Democratizing Innovation as a paradigmatic tendency towards (a new) democracy can be thought and maybe even relevant beyond the scope of this thesis.

11 Bibliography

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