‘Digital Collaboration, Infinite Writing and the *Differend* since 1983’

A THESIS

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Certified that the Thesis entitled

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re-submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University is based upon my work carried out under the supervision of Professor Sucheta Bhattacharya, and revised and amended according to the suggestions made by the second external examiner, and that neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/ elsewhere.

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Chapter 1

Digital Collaboration, Infinite Writing and the *Differend* since 1983: An Introduction

Digital Collaboration, Infinite Writing and the *Differend* since 1983: An Introduction

This thesis revolves around certain issues on authorship, writing techniques and its status in the age of the internet.

The whole idea to work on a topic, that for a long time, in the history of literary theory, was thought of as non-literary in nature, speaks volumes about why the extents of the topic is expansive, not just in terms of references of research works that has been done earlier, but in the general philosophical understanding of the boundaries of such theories. That is to say, it, for a very long time at least, had to struggle to find a place in a classroom that didn't have a relevant literary text to be based on. This directly reminds me of Stanley Fish's recollection in his extremely important work *Is There a Text in this Class?: The Authority of Interpretive Communities.* (Fish 2003), where he talks of a student, who after finishing his class, goes to a fellow-teacher to see if there was a text of that lecture in the other class. Initially, the fellow teacher thought that it was a general enquiry about the availability of physical texts of a particular lecture, which students want to cross-refer to, at a later time. However, Fish himself thought on the question a bit further. More than the availability of a text that a student wants to keep back in order to store not just knowledge, but confidence, particularly before examinations, Fish started thinking whether retaining texts was any more ontologically possible with possibilities of readerships and interpretations reaching infinity. To add to this problem, was the general crisis of the lack of a text that was understandably becoming difficult to compile, because of its moving and ever-changing nature, post the Sherman Antitrust Act, passed long back in 1890 (July 2nd), in the United States, under the Presidency of Benjamin Harrison.

The Sherman Antitrust Act has been consensually defined in and by the Wikipedia as follows:

> The Sherman Antitrust Act, or more commonly the Sherman Act, 26 Stat. 209, 15 U.S.C. 1–7 is a landmark federal statute in the history of United States antitrust law or "competition law" passed by the Congress in 1890 under the presidency of Benjamin Harrison. It allowed certain business activities that federal government regulators deem to be competitive, and recommended the federal government to investigate and pursue trusts.
>
> In the general sense, a trust is a centuries-old legal arrangement whereby one party conveys property to a trustee to hold for a beneficiary. These are commonly used to hold inheritances for the benefit of children, for example. The specific sense from 19th-century America used in the law refers to a type of trust which combines several large businesses for monopolistic purposes – to exert complete control over a market – *though the law addresses monopolistic practices even if they have nothing to do with this specific legal arrangement*. In most countries outside the United States, antitrust law is known as "competition law".
>
> The law attempts to prevent the artificial raising of prices by restriction of trade or supply. "Innocent monopoly", or monopoly achieved solely by merit, is perfectly legal, but acts by a monopolist to artificially preserve that status, or nefarious dealings to create a monopoly, are not. The purpose of the Sherman Act is not to protect competitors from harm from legitimately successful businesses, nor to prevent businesses from gaining honest profits from consumers, but rather to preserve a competitive marketplace to protect consumers from abuses.

> Over time, the act has also been used more broadly, to oppose the combination of entities that could *potentially* harm competition, such as monopolies or cartels.
>
> A cartel is a group of apparently independent producers whose goal is to increase their collective profits by means of price fixing, limiting supply, or other restrictive practices. Cartels typically control selling prices, but some are organized to control the prices of purchased inputs. Antitrust laws attempt to deter or forbid cartels. A single entity that holds a monopoly by this definition cannot be a cartel, though it may be guilty of abusing said monopoly in other ways.
>
> There are three accepted categories of cartels: cartels with national scope (considered the most common), regional, and international cartels.
>
> (2018)

While at the surface level, this Antitrust Enforcement seems to be pertaining more on the sides of law, and lesser on economics and philosophy and least on literature, it was not so easy to discard 'undercutting' as a category away from literary studies altogether. To my sensibilities in particular, such undercutting, particularly in literature, exists primarily in cases of "physical books", mostly because of the age-old debate as to whether the righted or copyrighted material must be the physical structure called the book or whatever is contained in it. Since the material and medium in a hand-written/printed book is inseparable to the contents contained in it, undercutting of a book was not just a business strategy; it became synonymous with (unfair?) free trade of contents as well. My journey to the current thesis began, when I started looking at alternative possibilities to restore and/or restructure content and save the intangible portions of the book; that regularly goes through such undercutting, out of the regular market schemes of the book-industry. Much to my amazement of course, I realized that I was not one of the first people to think on these lines. Lawyers, software

scientists, engineers, social theorists, et al, have already thought of the possibility of an existence of a category of writing that can emerge outside the existing parameters of conventional writing. However, there was an absolute void about approaching the specificities that I am going to talk about, from the point of view of literature. In fact, sometimes, I thought to myself, whether at all, I would be able to argue on the given sets of problematic, from the point of view of literature at all; or whether I should benignly accept that the book industry and the physical nature of the book should fall back on the domains of marketing experts, lawyers, printmakers, but not students of literature.

I am extremely thankful to my "anxiogenic" destiny for having been given the opportunity to pursue my PhD thesis from a department of Comparative Literature; a department in which, the very rationale (at the level of the discipline) whole-heartedly celebrates anxieties within the domains of their inter-disciplinary; sometimes multi-disciplinary literary pursuits. I had hope, but with doubts, that the expansive and engulfing nature of Comparative Literature will give space to accommodate my work within its ideological nexus. Shortly after, much as to why the European countries had to claim Greece as their own glorious past, I found refuge in the discursive contributions of Michel Foucault, whose works could take me directly inside an ontological question on authorship (Foucault 1969); in understanding what is an author and concluding about the author in ways that could be both literary and extra-literary in nature.

My thesis revolves around an extremely fundamental question on the ideas of a narrative; but in the digital space. Initially, it is not striking or even surprising to think why this study is even necessary, considering that "narrativity" was anyway never exclusive to non-digital platforms. However, such characteristics in general and few more in particular made me rethink the whole idea of narrativizing content and reflexively questioning whether it is coherent and consensual in nature, in the digital platform.

My primary research question is **to see if there is really any change in the ideological position(ality) of authorship, in the written form of intellectual content production and dissemination, in digital collaborative infinite writing,** but I will try and answer that question towards a later part of this chapter. The primary methodology used to conduct this research is "**Comparative Literature- Historiography**", and in places, I have also tried to read the thesis with the methodology of "**Analogy Studies**"; also an important research methodology practiced in the discipline of Comparative Literature.

I have tried to break the concerning issues in smaller fragments, based on the primary themes that mostly gain prominence throughout my thesis. After providing a thematic insight into the full thesis, I have also provided chapter-wise ideas of the several multi-disciplinary aspects that form the core spirit of this work. To begin with, however, a thematic spread of the work stands as follows:

Digital Collaboration and the Celebration of Infinity in Writing:

Let me begin by explaining what I really refer to while I talk about **Digital Collaborative Infinite Writing**. I am referring to "real-time digital platforms", where infinite number of writers, who are also readers, can participate and contribute, modify, edit, alter or even delete specific content within or about a work, in the "same platform" wherein the first work exists on open source or other related open platforms. It is to be strictly kept in mind, that if any of the parameters change, or cease to exist, then the other kinds of writings or intellectual content productions that can and do exist, are outside the purview of my current focus.

In fact, there are other kinds of content production models, outside the category of "writing" in which many characteristics and effects might seem similar, because of one or

more than one parameters matching. While indeed there are overlaps in causes, resulting in similarities in effects, I wish to reiterate, that I am only focussing on the medium of digital collaborative infinite writing in this thesis.

Till the current date, the most commonly used and popularized platform of this category are specific examples of certain softwares under the Wiki. A wiki is a website on which anonymous users collaboratively modify content and structure directly from the web browser (such as the entry on the Sherman Antitrust Act). In a typical wiki, text is written using a simplified mark-up language and often edited with the help of a rich-text editor (Dennis 2018)[1]. Let us look at certain examples in non-fiction:

- Ballotpedia - This is an interactive non-partisan almanac of the US politics, or
- Catapedia - This is a platform for collectors of comic strips, board games, model cars, and other kinds of memorabilia, or
- Choral Public Domain Library (CPDL) – This is a free library of typeset musical scores, or
- Tolkien Gateway – This talks about the works of Tolkien, primarily the *Lord of the Rings* and *The Hobbit*, or
- Most commonly the Wikipedia – This is the most popular, multilingual encyclopaedic project under the Wikimedia Commons.

Similarly, there are also examples of the model I am talking about, in fiction. Some of them are:

- Galaxiki – This is again a web-based, free content virtual community talking about fictional galaxies that can also be explored in 2 Dimensional maps. Most solar systems here are currently still locked, but new solar systems are open

[1] The word "wiki" was first entered in the *Encylopaedia Britannica* on April 24, 2008.

automatically for the community every day. When a Galaxician "frees" a solar system she can decide if the system shall become open for the entire community, or if the system shall become a private project. In this case it is also possible to dedicate the star or solar system to someone.

- Folding Story – This describes itself as a writing game where each writer writes only one line of a story, or 120 words, whichever is lesser, and another anonymous writer gets to write the next line/s and so on.
- Similar examples are Ficly, Fabulate, One Million Monkeys Typing, Storymash, Collabowriters, Novlet (multilingual; through real-time machine translation), and one can go on and on with examples.

Unfortunately for the collaborative digital text, as contrasted to more conventional studies in the Humanities, the process of theorization of a text happens before the reading of such text, and, the process of contextualization of a text, happens after the completion of the reading of it. As a result, conventional methodologies of reading a text gets altered and modified and in fact inverted in many ways both within the space of the text and beyond. Additionally, due to the participatory nature of digital writing, any reader can directly and wishfully choose to modify or alter a text in the hyperlink. What remains is a status of complete uncertainty. One can never claim with any form of assurance that the text read/accessed on a given date will remain so at a later date as well. In fact, if one tries to claim the story of the computer interface from the initial stages, one would need to start looking from the early days of the Macintosh, where computers were perceived as giants, designed and executed to not just rise above the human race, but eventually to render the

human race inadequate or even invisible. This notion of the hyper-threat[2] came primarily from the computer's visible potential to simulate in exactitude; without the human errors. Additionally, operating systems were constantly trying to exclude the idea of the "narrative" beyond the domains of literature. "Storytelling" was also becoming an expansive and non-inclusive category gradually. In the conventional and diegetic space of storytelling, the storyteller presupposes an audience, and often customises portions of the bigger plot according to the likes and general interests of the audience she is to cater to. With the advent of the printing technology, particularly in case of more elaborate storytelling such as in the novel, the reader might not physically exist before the writer, but is very concretely ideated in the mind of the "writer" (it is to be kindly noted that I am deliberately avoiding the use of the word "author") as to who she is writing for, how well her works would be received, etc. In fact, in contemporary literary studies, the popularity of the thought of "horizon of expectations" (Jauss, Bahti, & Man 1982) depends precisely on that; that the writer and the reader can and do presume each others' tendencies before actually taking a look at the real work. However, when the computer, or more technically the "system" begins to take up the position of the storyteller, both because of its universal, as well as anonymous character, it cannot assume the tendencies and wants of its readers-to be. Does that mean that in the era of big data, when the system knows where I want to travel for my next vacation, even before I decide to make any plans, cannot guess on the cultural identities of its reader-base? And, if it does get an idea of the cultural identity, or the IP, is it really all that difficult to understand who the reader is and what she wants? How is it then, any different from more conventional types of tendency-anticipations? The point is, anticipations depend on primarily two things:

[2]The term "Cyberphobia" was coined in 1985 and originally meant an aversion or anxiety caused by technology in general and computers in particular. This is to be understood as distinct and different from Technophobia (fear of technology in general) or Chromophobia (fear of conditioned response). The three, however, are often seen to have major overlaps.

- Whom one wants to target for the market (alternative markets included)
- This target again, gets defined on track-records of who has already been or who has wanted to be known as the potential market.

In each case, the "target" gets defined and designed, either in that order, or in the reverse order as well, only when the identity can be deciphered or is easily available. In the print medium, such identities have developed over five centuries (the Gutenberg Bible was printed around 1450); a period that is enough to be treated as statistics for what is to come in future. That for so many centuries, books would be written, printed, distributed and read, in my opinion, was not just a scholarly category, but an extremely intelligently designed market/capital category, in which the physical entity called the book, was chosen to be grossly misunderstood as an intellectual content for what lay inside of it. The interchangeability of the physical book with what lies inside of it, became something like a "magical coincidence" *(my metaphor)*, which, in monopoly, spanned for such a long time, that I wonder why this system was not ever brought under the scanner of Antitrust Enforcement Laws, at least, majorly before 1983. I shall, in due time, talk more specifically about the specificities of 1983 and its relevance to my current thesis. To come back to the present discussion, the book-market found a garb, an intellectual disguise of pride. People started taking pride in saying how many books one possesses, according to which how many books one has read, and further according to which, how learned one is or has been.

Because of so many mis-matches, connected together innocently (?) as inevitable, the digital hyperlinked writing came as a fresh break from earlier kinds of writing. In such kinds of writing, what is to be written, who it is to be addressed to, who will read it, is potentially infinite, therefore the possibilities are endless too.

Can Infinity and Coherence be combined? Should they be necessarily combined?:

In the context of the digital infinite writing, the one major problem that gets almost automatically attached to the nuance of the phenomenon is the question of "coherence". Can any infinitely growing and ever-changing text be coherent in the sense of it being both logical and consistent? Is coherence to be understood only in terms of logic and consistency? Is coherence compulsorily required in any narrative?

Digital writing is any writing that can be fairly understood as having been written in the digital platform, to be read, appreciated, argued or modified through the complexity of whatever the medium stands for. In fact, if a piece of writing was meant to talk the digital rhetoric, then much of its aesthetics, sensibilities and semiotic functions would render itself meaningless in any other platform outside of it. If a writer who intends to write in the digital infinite platform participates in it, it would become counter-foolishness to think that she already does not agree to the laid rhetorics of the space; specifically meaning the uncertainties of the text. The problem is that digital infinite writing does not congruently fit specifically to the narrative theories already laid in literary theories, film theories, game theories, etc. The new transmedia narrative or multiplatform narrative (as it is popularly known), raises, therefore, a few extremely important questions:

- Can print-based narratives, with a few characteristic extensions of the conventional, be converted to a digital infinite narrative?
- Can print-based narratives, with an application of whatever added cybernetics[3] is required, be rendered into a digital infinite narrative?

[3]Norbert Wiener, an American Mathematician and Philosopher at the MIT, defined cybernetics in 1948 as "the scientific study of control and communication in the animal and the machine". (Wiener 1948)

In every kind of text, there is a systematic orchestration of relationships between an author and a reader. Such relationships hold true because readers agree to the laid codified protocols of what they want to read. Exceptions, mostly in the domains of the content, might seem like an avant-garde practice, but of the similar ideological position of the conventional work. For instance, there have been innumerable examples of static collaborative writing in the analogue platform, where people have put their heads together in composing pieces of art, or there have been linear collaborations as well, in which one person, much like what happens in a relay race, has continued from a point the last person has left, like in sequels or otherwise. The point I'm trying to make is, in such cases too, there have been exceptions in practices of the shaping of a conventional narrative, but the digital collaborative infinite narrative has effectively thrown questions back to the inherent possibilities of the texts becoming incoherent; narratives defying logic of chronology, of contexts, of traditional supplements.

What I wish to emphasise is that some very inherent questions have already been asked about the narrative even in the analogue platform. Questions like "who is speaking these words"? "who is seeing the third person narrative with so much conviction?" are questions that were necessary, and have been asked and almost answered already. Slightly more convoluted questions like "okay she sees it, but who perceives it?" have been asked and answered too. The domain, about which I intend to speak, has begun to ask yet another kind of question which was unasked not because people couldn't think enough about it, but because it was not rationally necessary to be asked in the analogue platform: "who all conceived it and how, if nobody conceived it and in no way?" That precisely is the beauty of this incoherence. Here incoherence is not a lack of focus, dedication or effort; but an ideological position that is celebrated out of choice by people practicing it knowingly.

What laws? Why licenses? Effects of alternative licenses:

Historically, property could and did exist beyond the narrow binaries of the "public" and the "private". I have tried to locate that historiography in details in a specific chapter of this thesis titled 'Private Property Rights: A General History of Privatisation of (Intellectual) Property in the West'. Here, however, I wish to quickly run through the most prominently existing ideas of the "commons" (Laerhoven & Ostrom 2007), what it means in the domains of property in general and intellectual property in particular. The "commons" itself is a widely debated term and concept meaning anything from "public domain", to "freedom of sharing" to "freedom of copying", to "commonality" to "anti-copyright" or even "copyleft" for that matter. This discussion takes more important turns in the sphere of the digital commons such as the Creative Commons, GNU GPL, etc. The point however is to see, how much of any of these are commons and what impact could it have or does it have on digital collaborative infinite writing. The closest that I could borrow about the commons to suit my argument is from Multitude: War and Democracy in the Age of the Empire (Hardt & Negri 2004) in which commons is also (almost) located as a capital category which is stored "as a basis for future productions in a spiral, expansive relationship".

It struck me, some six years back, to specifically look at the year 1983 and see how certain changes were taking place in the domains of philosophy, politics, economics, software studies, etc; and look at trends that hail from seemingly disparate disciplines; and how they unveiled a new kind of (con)fusion that was making a mark in the new areas of interdisciplinary studies. It was the year in which Jean-François Lyotard, the eminent French philosopher and literary theorist, came up with his book titled *The Differend: Phrases in*

Dispute. In this, he talks about how some disputes cannot be resolved. Some kinds of disputes cannot be resolved because they operate within such different "language-games" that no grounds of commonality can be achieved in order to reach a consensus, essential for resolving disputes. The problem of *differend* cannot rely on existing structures of law, because the languages available to the conflicting parties defy mutual resolutions. One is only left with the choice of respecting the other side of the argument. It was a moment, when one needed to understand that in existing language structures, "not agreeing" was not essentially "disagreeing". While he focussed mostly on problems of land acquisitions, holocaust and other issues on ethics and philosophy, it was also amazingly fitting the problems related to laws of access, use and sharing of content in the digital media, etc. Mostly intellectual laws pertaining to print were being used to resolve the (un)possible problems arising in the areas of digital access; because obviously the new language parameters were not soundly developed till then.

Also, in 1983 (September), Richard Matthew Stallman, an American free software movement activist, programmer and founder of the Free Software Foundation, had for the first time launched the GNU project, to create an earlier UNIX-like operating system, composed entirely of free software. Of course, at the same time, he also launched the Free Software Movement. The GNU project is a free-software, mass contributory collaborative project, developed at the MIT Artificial Intelligence Lab. Under this, users are free to use the software, by running it, sharing it, or even modifying it; because the source code of such software is always open. This gave rise to major debates on rights worldwide, because if "do not steal" was not a philosophical conviction anymore, then stealing would become (un)possible.

I see the launch of GNU-GPL as a particularly poignant moment of differend. In the digital medium, old laws cannot resolve new problems; because the problems are philosophically of a different category and nature. If older laws were still to be used to solve problems of the new origin, then the resolution would be deemed as flawed as the charges of criminality in the first place.

To begin with, in the digital information society, the commons-agreements are extended and expanded as codes, understood by the computer and interpreted by human beings as understood by the computer. The resultant action of codifying property rights introduces doubts and difficulties when they are expected to be formalized in any legislative capacity. That is primarily because, for any ever-moving text, the shifts from $status_1$ to $status_n$ are so rampant and commonplace, that codification and standardization ceases to be the same thing any longer. In case of the commons, the claims to intellectual property neither remain on the object of the property nor on the makers of such objects. However, creators unanimously agree that these objects can be treated as property, yet exchanged and reused for free consumption. The point from which the necessity for digital commons even emerged dates back a long way when the first arguments were raised as to whether in a software, writing codes deserve a specific kind of rights of authorship or not (Ghosh 2006). Why should it not, considering that it also involves unique ideas and innovative designs and algorithms, be treated as rightable private property too?

In this thesis, I have also found it extremely interesting to note how different and disparate things happen at the same time and how later on relations between them can actually be drawn. For instance Foucault's 'What is an Author?' was originally published in 1969. Alongside to it, the Indian Antitrust/Competition Law, commonly known as the Monopolistic and Restrictive Trade Practices Act, ("MRTP Act") was also passed in 1969. I am reminded of analogy studies, a particular methodology followed and promoted by the

American School of Comparative Literature and almost that again is recognized as the Butterfly Effect in Chaos Theory of Mathematics, under the aegis of the Lorentz Attractor (discussed at length in the second and in the concluding chapter).

Whatever might be the mode of operation, depending on the type of object, upon which intellectual property rights are to be reserved, the most important anxiety concerning such rights in the digital platform is reaching a point where there is a prominent lack of "control". As a direct result of this, there occurs a difficulty in understanding which portions of the property to call an asset, which portion can be declared sellable, which portion can be called profitable in the money-making market, etc. Open software in general and open codes in particular are often looked at with extreme fear that they might end up compromising on revenue that was understood as a normal source of financial gain by corporate giants. Such giants, for their own vested monetary interests, in turn, started relooking at possibilities of how to read the new kinds of properties as congruent to the older ones, in order to fit to the older laws by any means; even if they were not congruently fitting to the earlier models. Doing so would ensure, that in such cases, the assumption of criminalities involved with the latter would be deemed similar to the older patterns; in judicial terms at least.

Having hinted at the problematic and also about the different nature of the commons laws, I however take this opportunity to abjectly ponder whether such new laws do not also rely on the age-old concept of the written contract, something which it inherently wanted to contradict and contest.

Ouroboros Snake Model of Authorship (My metaphor):

Digital Media Authorship has brought in the idea of collaboration like never before, in the entire history of authorship of writing. In the analogue world, the copyright system was, seen for a long time, to connect readers to authors. Not that it is a particularly problematic thing to do, but it is possible to do so only when there remains a clear cut distinction between the reader and the writer, with particular trust and hope that the reader cannot become the writer and vice versa, at least within a specifically defined piece of work. It does not mean that many people did not collaborate and write in the print medium, but it is certainly true that the number of writers (say $writer_n$) always had to be predefined and sealed before the publication of the work. Naturally, then, the flow of power of information in such networks were unilinear, or at best "multiple unilinear" (in this case, I am referring to printed books which could be seen as a precursor to the hyperlink; which said go to page no 32 if you want to follow Nick or page no 46 if you want to follow Tara, etc.). In the digital medium however, it is not so easy to mark an access of a reader as unauthorised, because of loosely defined boundaries of access rights. The second most fascinating thing about digital collaborative writing, as I have already mentioned earlier, is the celebration of infinity vis-a-vis a system of incoherence, resulting out of the infinity.

There of course, is a third major important characteristic of such writings, in terms of the flow of power in the networked economy of cultural production. Since every reader can contribute (not just by interpreting, but also by writing), to the already ongoing process of the writing; since every second reader, can, by contributing, become the second writer too, since every second writer can again modify the modifications of the earlier writer and become the

third writer again, the third writer become the fourth reader, she in turn, become the fifth writer and on and on, one can understand that the functions of the reader-writer become similar, congruent, and spiral in nature. So much so, each second function of power can modify or also delete the works of the previous "contributor" (used as a comprehensive word; to mean both reader and writer) in the infinite writing.

$$f(\text{Author}) = \infty \ldots . \text{ (i)}$$

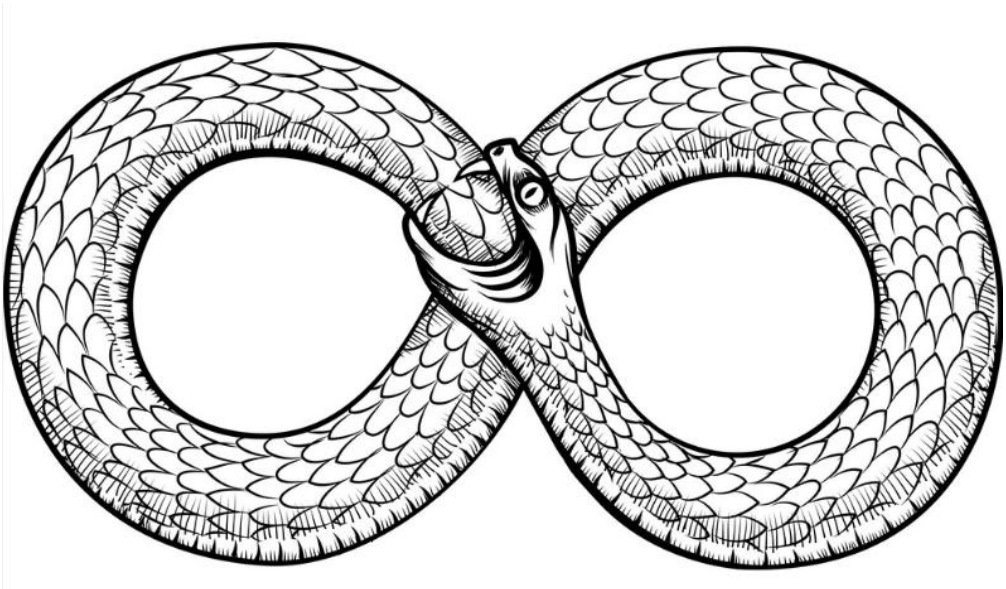
$$f(\text{Reader}) = \infty \ldots . \text{ (ii)}$$

Combining (i) and (ii), we have $f(\text{Author}) = f(\text{Reader})$

In order to refer to this unique phenomenon, where provisionally, every reader is a writer, every writer is a further reader, and so on, I have used my own metaphor of the "Ouroboros Snake" to define this model of authorship. In this model, authorship is obviously a function, like always, but in its own slight aberration, it is not a function of the process, but more of an effect. Let us understand what the Ouroboros Snake is and what this metaphor intends to mean.

The Ouroboros, is an Egyptian mythical symbol of a snake or a large dragon that is shaped in a circle and shown to be eating up its own tail. There are debates as to whether this was located first in magical traditions, or alchemic traditions, etc. It gives a sense of something constantly recreating itself, where the newness is not devoid of what it has left behind. Yet, it is not a structure of dialectics, of contradiction, of one voice negating another voice and reaching a third voice. There is a disagreement in the philosophy of contradiction. In the Ouroboros Snake, the next whirl is not a result of any disagreement of processes and

functions; it is a smooth whirl, meant to happen, as an effect, without any sense of threat, because it has itself agreed to eat itself up. The birth of the next is by choice not death of the former; but a unique amalgamation of little bits that is infinitely forming and choosing to get deformed, and forming yet again. I see *digital collaborative infinite writing* as this ouroboros snake, that is constantly put to a loop, where it can revolve constantly, infinitely, with the provisional hope that every moment it will break, change and take a new turn; but not such an absolute new shape, the presence of which was absent in the original loop. It was always there, it will always change, yet it will always be there again. The uncertainty is by a certain choice that people wished to make, which could become possible because of certain codes and laws that were restructured to suit new dreams. It could become possible because the digital platform, by logic, was not static like the print. Technical innovations took shape because of technological innovations. Authorship slightly changed its pattern, because certain paraphernalia changed elsewhere!



[Fig. 1: This image content of the Ourobos Snake, curled as infinity, is available under the Creative Commons Attribution-ShareAlike License]

Therefore, is there really any change in the ideological position(ality) of authorship in the written form of intellectual content production and dissemination, in digital collaborative infinite writing?:

If authorship was indeed something to be protected, and protected in such a way that authorization to access would delimit readership by sheer numbers first, and other man-made parameters of eligibilities next, then any content produced in the alternative, collaborative, infinite, digital network is certainly a fresh start by the basic fact that such accesses cannot now be outlawed easily. Next, authorial rights having become more flexible, begin to operate as functions of effects, as contrasted to functions of processes. What authoring is, now seems to fall in an infinite loop, which can be guessed by tendencies of ongoing processes, but never concluded for certain, because the work itself, at least provisionally, never reaches any point of conclusion, either in structure, or in content.

I, however, still place a small, very small note of doubt, that if verbatim permissions to reproduce, still need to be written and distributed in the digital work itself, in a world which talks so pragmatically about trusts, free use, redistribution, liberal derivates, etc., then are we not subconsciously trying to again reshape the earlier copyright models in those language games which we thought were incompetent to suit the disputes in the digital collaborative infinite media?

Mostly, however, I believe, that certain changes indeed have taken place because of the characteristics mentioned so far; and those, which I have tried to exemplify throughout the scope of my current thesis.

After the general thematic sectioning of the thesis, the following section contains a chapter-wise insight into the various segments through which I have segregated the whole thesis into fragments. This section is a chronological cartography based on how the work progresses, and which component is dealt as what and how, in which of the following chapters.

Chapter Cartography:

Succeeding the (this) introductory chapter, is the chapter titled **'Private Property Rights: A General History of Privatization of (Intellectual) Property in the West'**. In this chapter, I have drawn a historiography and trajectory of the birth of private property (in the west). Looking at the early works of Bachofen and Morgan, and Engels' take on the works of Bachofen and Morgan, this chapter traces the earliest ideas of the "property"; evolution and modifications of such ideas of the property; the changed and nuanced understanding of the property, et al (Engels 2012). Here I have argued on the notions of "inheritance", "procurement", production and saving of "surplus", creation of "wealth and capital", etc. and how each category, that had started as some kind of a necessary practice, ended by being considered as some kind of an ontological truth; where one naturally (?) led to the other. The main focus of the chapter is to locate the hidden mechanics of "normality" with regards to the idea of the "property"; which, if ceases to look normal, can give birth to infinite number of different or other possibilities of the existence of that very "property". One of the primary categories that were born as a result of the creation of "property" was the term called

"ideology"; which I have traced in this chapter too. From Locke, to Marx, to Leibniz, this "ideology" has always found great importance in human being's idea of the property and any kind of disputes that arose as a result of settlement of such property. The point from which, initially, the idea of "the body" was seen as a property, to the point when land was seen as property, to the point when houses, or married (particularly female) partners, or kids, et al., were seen as property can be and has been located in a broad historiography, to (expectantly) find out that there were more than ontological reasons, for the claims of such domains/relations to be known as the property. To add to it, is intangible and/or abstract "intellectual content", which soon, mostly for very similar reasons, like in previous cases, began to be seen as property too. If intellectual content got started to be recognized as property, (and we know that it did get recognized as that), then the single most important category that started existing as a result of the existence of this kind of property, are the creators of this property; the creators of the intellectual content; the "authors" (used independently from the word "writers").

This chapter therefore, in the second half, traces the history of the evolution of authorship rights in the west. This chapter looks at the earliest kinds of rights that tried to protect "intellectual property" in the west. Naturally, I have drawn this trajectory starting from the historical point when the Statute of Monopolies (1623) and the Statute of Anne (1710) were designed and implemented in order to recognize intellectual property as something extremely important and protectable. Following this, this chapter moves ahead to trace the birth of "Copyright"; which is one of the very first recognizable licenses that codified intellectual content as wholesome property, legalized the same and tried to protect the rights of authors of such property creators, for ensuring their complete authority over the creation, retention, distribution and monetary benefits associated with such content. At this juncture, however, in my chapter, I have specifically differentiated the extents of copyright

laws under its two most poignant characteristics: the moral and ethical rights (over the inherent components of the intellectual property) and the rights of acknowledgement of the "rightful" owner of such content.

The chapter following this (i.e. the third chapter) is titled **'Information Imperialism: Investigating the Binary between the "Information-Self" and the "Information-Other"'**. Working on this chapter, for me, has been an extremely interesting creative exercise, in which I have dealt with many important categories and domains discreetly as well as in a joint and cohesive manner. In this chapter, I have discussed certain specific issues ranging from politics, philosophy and economics, and tried to see whether such issues can be read in isolation at all; or whether they can be read only through a multi-disciplinary pedagogy of politics, philosophy and economics. Issues such as "exploitation" demands knowledge in multiple domains to even begin attempting a comprehension of it; let alone evaluation and/or litigation related to the same. Likewise, I have tried to locate "privatisation", "information", "imperialism", "information imperialism" as specific subsets that can be understood only through a multi-disciplinary pedagogic reading. This chapter focuses on the (processes of) birth of information, codification of such information, processing of information, and most importantly what can and does happen when information is irregular, random yet generates (important) meaning, nonetheless. It is only through a proper understanding of the information life-cycle, can one make a thorough idea of the irregularities of information production.

In this context, this chapter focuses on the Lorenz Attractor and hints at the Chaos Theory of Mathematics which could affect, particularly, the irregular, random and non-standard forms of information production. Through this, I have tried to establish a reading of the different kinds of data that get processed and converted as information and have also tried

to demonstrate which kinds of such information are commonly accepted and why (mentioned here in the metaphor of the *information-self*) as contrasted to the ones as to which are not generally accepted as reliable and also why (mentioned here in the metaphor of the *information-other*). There are different ontological and phenomenological connects that decide what one wants to do with information. Such connects, more often than not, have hardly got to do anything with the nature of the information per se. They are more commonly dependent on issues arising directly from politics, economics, philosophy and other common trainings of the rational human mind. Based on the independent trainings that one receives, or better still, chooses to receive, information can (or cannot) get acknowledged as trustworthy; as truth. Since the kind of writings (arising out of a specific set/s of information) that I am working on (read, *digital collaborative infinite writing*) is often terminated from the domains of literature, reportage, essay, and/or any other commonly existing genre of practiced writing, this chapter creates a critical insight as to what could be the reason for such dismissals and aversions to *digital collaborative infinite writing*. More importantly, I have tried to argue that the decisions concerning the acceptance and rejection of information through various kinds of writing, does not necessarily depend on, either the truth claim of the writing or the information; it exists outside, in a third domain of one's lifelong trainings in/of multi-disciplinary pedagogies of politics, philosophy, economics, etc. That affects one's notions of truth.

The next, or the fourth chapter, is titled '**The Philosophical and Legal Dilemmas over Intellectual Property in the Digital Age**'. This chapter tries to look at ways and possibilities in which, as was observed in the earlier chapter, information tends to get imperialized under the proprietary folds of the market led economy. While this chapter looks at information as a category in general, its primary focus is in dealing with the nuances of information produced, utilized, consumed and distributed in the digital platform. This

chapter, therefore talks about categories such as “gratitude”, “theft”, “sharing”, “consensual redistribution”, etc. and uses these terms within the manifold of intellectual content production and dissemination in the digital media. As a result of this attempt, this chapter begins talking specifically about Intellectual Property Rights (IPR), what it is, its scopes and limits and how it can be subverted to act against itself in more ways than one. This chapter examines possibilities of new digital licenses that have evolved over the years and whose ideologies seem to have taken very different turns and approaches towards “writing” as a category, than how it existed in previous years. It tries to draw a historiography and trajectory of the information economy, albeit in the digital age. In doing so, it introduces how and what type of “softwares” can help writers writing under the *digital collaborative infinite writing* model to seek refuge; even legally, from processes of retention and/or rejection, created mostly because of reasons mentioned in the third chapter. As a process of quest towards realizing this possibility, I have included “software studies” as a pedagogic tool to understand the nuances of “open source software”; its philosophies, strengths, scopes and potentialities in charting new paths for the kind of writing that I have talked in my thesis about.

This chapter also mentions about the history of F/LOSS (Free Libre Open Source Software) and how it can be beneficial to be read as a tool for defining writing technicalities in the digital age; specifically under the collaborative infinite model. Questions of control, vis-a-vis, its general misunderstanding with lack-of-profit seems commonplace, the moment open source software activists begin talking about alternative licenses. Whether we have enough tools to upturn the conventional models that act against the freedom of “infinite writing”, is therefore the primary focus of this chapter.

The fifth chapter, a less theoretical and more technical chapter is titled as ‘**Alternative Modes of Knowledge Production: Understanding the Nuances of the Wiki-Based Modes**’. While the last chapter looked closely at information and its production,

dissemination, et al, this chapter begins by looking at the next stage of information, viz., knowledge. As a result, this chapter provides a general history of knowledge and production of such knowledge by tracing its appropriate historiography, beginning from the writings of Francis Bacon, to Antoine Destutt de Tracy, to Antonio Gramsci, to Richard Matthew Stallman. Following this historiography, the next segment of this chapter focuses specifically on one such example of a changed system of knowledge production: the Wiki-Based Mode. The Wiki-Based Mode has been used as a specific case study to exemplify such standard modes of operation of the newer processes of knowledge production in the digital age. In this section, it has been specifically and categorically explained as to what exactly is a wiki project and it has also been demonstrated, as to how to create a very basic or beginner's level wiki project. Standard keywords have been explained, terminologies have been defined and operation processes have been designed at a step-by-step level which is aimed to help an uninitiated person to open a wiki-project on her own. I stand to believe, that only if a user experiences a hands-on approach with a wiki project; which anyway is meant to accommodate infinite number of (uninitiated) users, using a platform anonymously; can one understand the true essence of the completely new format that emerges as a process of such new forms and practices of writing. After reading this chapter, one can get a very basic and primary idea about composing and editing text in markup language in a *digital collaborative infinite writing* platform.

The sixth and the final, concluding chapter is titled '**Concluding Infinity: Connecting the Chaos, the Context and the Differend in Digital Collaborative Infinite Writing**'. In this final chapter, I have tried to connect those ends, which might seem disjointed during the reading of the thesis at first go; particularly to readers of literature, because too many non-literary (?) concepts and terminologies have found place in this multi-

disciplinary attempt. In this chapter, I have again specifically explained the Chaos theory of Mathematics, why it can be used to read phenomena existing in literary and social sciences and in what ways. A further question that seems to be initiated with this stage is to investigate the rationale that how far a Mathematical theory can be identified and acknowledged as Mathematical (alone), particularly in the age of hyperlinked connections. Can theories exist to particular pedagogic domains anymore?

If one understands the logic behind introducing Chaos Theory as a marker to understand *digital collaborative infinite writing*, one will automatically begin to understand why I have introduced the metaphor of the "Ouroboros Snake" in proposing and ideating the new model of authorship, which I have called the *Ouroboros Snake Model of Authorship*, throughout this thesis. As discussed earlier, in this chapter, the Ouroboros Snake is agreeable to eat itself up and create new points of generation from each infinitely deleted point; much as to how the chaos operates. In the chaos, too, every cause gives birth to new connections of effects; which consensually make space for earlier points to be modified or removed in order to enable the infinite continuum series to move forward.

In the next section of this chapter, I have tried to relate this Mathematics-Humanities nexus in the light of Marxist Political Ideology, so as to be able to see how a political position of subversion can begin to exist in "writing" when its rationale of creation is backed by newer positions of Mathematics, legality, software activism, etc. In doing this, I have specifically explained the legal position of the "differend", as propounded by Jean Francois Lyotard alongside the nuances of the GNU-GPL, as propounded by Richard Matthew Stallman to see how each parameter of varied disciplines joins together to create new processes towards an initiation of *digital collaborative infinite writing.*

Chapter 2

Private Property Rights: A General History of Privatization of (Intellectual) Property in the West

Private Property Rights: A General History of Privatization of (Intellectual) Property in the West

The Origin of the Family, Private Property and the State, an important work written by Frederick Engels in 1884, is one of the key books that traces the birth of Private property and class society. Engels studied the works of Bachofen and Morgan and collected reams of data from various other sources and applied the tool of historical materialism to it, which he and his comrade-in-arms Karl Marx had styled to trace the dynamics of different civilisations. In this most celebrated work of his, Engels focused chiefly on human history of antiquity, the primitive communal society, following whose disintegration, he argues, class society based on private property came into being. He suggests that it was through the birth of private property, that class society emerged.

Based on 'The Three Laws of Inheritance', Henry Lewis Morgan tries to locate the origin, growth and progress of property inheritances in different ethnical communities in the ancient periods (Morgan 1877). In doing so, he critically observes the logics associated with ownership and what importance and influences it directly had on property inheritance norms. He stated that the earliest forms of inheritances were directly associated with the idea of "procurement". Under normal circumstances, bereft of man-made or natural calamities, it would seem most probable that such procurement would subsequently increase each year; forming an idea of a surplus stock, from every last year. Each period would thus always thrive to mark advancement in terms of its procurements from previous years and such added stocks would start to be seen and acknowledged as progress in terms of economic value of an numbers as well as the productions of the ethnic group; as each was seen to be directly

proportional to the other. Thus, in order to increase such produces each year, it was evident to increase both the "art" of production as well as "producers" of such art as would contribute to the production of such produces.

The growth of property, for Morgan, is thus strongly connected with the rise of inventions and discoveries, as well as with the improvement of social institutions, which mark the several ethnical periods of human progress. Morgan makes distinctions of different stages in ancient history of property distributions and divides them accordingly. He calls the first stage as "Property in the Status of Savagery" (11). In the first status, where one talks of the status of savagery, the progress of the ethnical stage, because of its primordial primitiveness, is not as distinctly marked as the later; and consists of more documented phases in the history of property dissemination. Yet, however slow the progress might have been, it was certainly and distinctly marked as a proportionate phase in the history of property. The earliest kinds of human dependency on the natural habitat structure for food, was through gathering of fruits. Along with advancement in food procuring techniques, more coherent languages took shape, which energised the expressions for accumulating and storing more food. Gestures, Sign Languages, et al, gained parallel prominence with advancement in procuring arms; from simple spears to bow and arrows. In such methods of subsistence, the food gathering clans gradually shifted to the shores to collect shells and scales; for food and other extra necessities. Prior to the end of this period, humankind had figured out how to help themselves in groups, in contexts with crude occasions; where they need not have to engender themselves over the face of the earth, and come into ownership of the considerable number of conceivable outcomes of the mainstreams for human headway. In social association, they had progressed from the connected swarm into clans sorted out in gentes, and accordingly possessed the germs of the vital administrative foundations; of such age.

Humankind, at this point, was currently effectively propelled upon, by its incredible vocation for the achievement of progress, which clearly explains the birth of dialects among linguistic innovations, along with other innovations in expressions; such as the craft of ceramics. The gentes, too, was considerably guaranteed amongst other establishments.

The time of this savagery fashioned colossal changes in the state of humanity. That part, which drove the progress, had at long last sorted out gentile society and grew little clans with towns all over which had a tendency to invigorate the innovative limits. Their rude energies and ruder expressions had been mostly dedicated to subsistence. They had not accomplished the town stockade for protection, nor to farinaceous sustenance, and the scourge of savagery still sought after them. Expressions of the human experience, innovations and establishments could speak for almost the total of the acquisitions of humankind in viciousness, except for the sublime advancement in dialect. In the total it appears to be little, however it was monstrous conceivably; on the grounds that it grasped the basics of dialect, of government, of the family, of religion, of house design and of property, together with the important germs of human expressions of life. All these, their relatives fashioned out more completely in the time of brutality, and their more civilized descendants were as yet consummating towards perfection. Such was the idea behind understanding how property was conceived, stored, restored and disseminated in the older and earlier worlds.

At this point it might seem, on an apparent note, that the notions associated with the property of savages were irrelevant to an understanding of the modern “family”. Their thoughts concerning its esteem, its attractive quality and its legacy were weak. Primitive weapons, textiles, utensils, attire, ruins of rock, stone and bone, and individual decorations speak of the main things of property in savage life. An urge, interest or energy for claiming its ownership had hardly been ideated or shaped in their brains, in light of the fact that the notion of the "thing" itself barely existed. It was left to the time of progress to form into full

volume that "greed of gain" (*studium lucri*) (537), which is currently such a potential power in the human civilization. Lands and terrains, until this point, that was barely a concern or subject of property, were possessed by the clans in manners of common understanding, while dwellings were claimed together by their inhabitants.

Upon variety of personal articles that were simply expanding with the moderate advancement of developments, both in volumes as well as in esteems, the considerable enthusiasm regarding accumulating wealth was sustaining its gathering and incipient forces. Those regarded most profitable were stored in the grave of the perished proprietor for him to proceed with usage in its after-life. In this chapter, I propose to see these traits as the earliest kinds of ensuring commitments towards property, which continue to remain in the names of those to whom it had been initially assigned, for whatever reasons. What remained, however, was absolutely adequate to bring up the issue of its inheritance and proprietorship. Of the way of its dissemination before the association into gentes, our understanding is limited because the data of such scholarship is constrained. With the establishment of the gentes came in the principal incredible rule of inheritance and legacy; and in this system, the family members disseminated the remains of an expired member among his gentiles. For all intents and purposes they were appropriated by the closest of family; however the guideline was general, that the property ought to stay in the gens of the decedent, and be circulated among its individual members inside the collective groups.

The next phase to discuss in this context of ancient ethnicities is that of “Property in the Lower Status of Barbarism”. From the creation of earthenware to the training of creatures, or, as a comparable, the development of maize and plants by water system, the length of the period more likely than not has been shorter than that of the earlier phase of savagery. Except for the specialty of ceramics, finger weaving and the craft of development, in America, which gave farinaceous sustenance, no extraordinary creation or disclosure signalized this ethnical

period. It was more recognized for advancement and improvement of organized institutions. The standards of such innovative creations, which has since then, clothed and dressed the human family, were impeccably acknowledged; however they were not particularly able to extend it to the next generation of the woven piece of clothing. Picture composing and hand-painting, likewise appears to have shown up in this period. In the event that it began before, it presently got an exceptionally impressive advancement to make documented note of it important and appropriate. This is intriguing, as many believe that this is one of the stages of an art which culminated in the invention of a phonetic alphabet; one that many civilizations use most significantly, even till date.

The most significantly connected inventions that took place along the same times were likely to be as follows:

1. Gesture Language; or the language of personal symbols and sign systems

2. Picture Writing; or idiographic symbols

3. Hieroglyphs; or institutionalized and/or conventional symbols (includes the ones with phonetic symbols)

4. Phonetic Alphabet; or the codified written sounds.

Since a linguistic system consisting of written sounds was a development through progressive phases of improvement, the ascent of its predecessor forms is both imperative and enlightening. Some advancement was made in ceramics in the expanded size of the vessels delivered, and in their ornamentation. However, surprisingly, it remained amazingly inconsiderate to the finish of the period. A portion of these developments were acquired, not impossibly, from clans in the Middle Status; for it was by this procedure, that the more

developed clans lifted up those beneath them, as quick as the last could acknowledge and to perfect the methods for such advancement and progress. The property and impacts of a couple were kept particular and discreet, and stayed after their death in the gens to which each separately had a place. The spouse and kids took nothing from the husband and father, and the (male) spouse took nothing from the wife.

The assortment and measure of property were more noteworthy than in savagery, yet at the same time not adequate enough to build up a solid assumption in connection to inheritance and legacy of property. In such method of appropriation as might be perceived, the germ of the second great rule of inheritance, gave the property to the agnatic or related to one, and prohibited the same to the rest of the gentiles. Agnation and agnatic kindred, as now characterized, accept drop[4] and inheritance in the male line; yet the people included would be altogether different from those with whom the inheritance would drop in the female line. The standard is the same in the two cases, and the terms appear as appropriate in the first one as in the other. With descent in the female line, the agnates are those people who can follow their descent through females only from a similar basic predecessor with the intestate; in the other case, who can follow their descent through men only. It is the blood relation of people inside the gens by coordinate descent, in a given line, from a similar basic precursor which lies at the establishment of agnatic relationship.

With this, two major ethnical periods, covering over four-fifth proportion of human-living was covered. While in the Lower Status, the higher ascribes of man started to show its values very prominently. Individual poise, persuasiveness in discourse, religious sensibility, integrity, masculinity and boldness were presently basic attributes of character; however cold-bloodedness, foul play and devotion were similarly normal. Components of veneration in religion, with a visible diminish in the notion of origination of individual divine beings,

[4]The word “drop” for Morgan, means “coming down”; in the sense of inheritance. (Morgan 1877)

and of a Great Spirit, unorganized section making, joint-dwellings, and bread-making from maize, have a place in this period. It likewise created the Syndyasmian family, and the alliance of clans sorted out in gentes and phratries.

The third ethnical category of this time could be seen as “Property in the Middle Status of Barbarism”. The state of humankind in this ethnical period has been more totally lost than that of the others. It was displayed by the "Village Indians" of North and South America in savage wonder at the age of their documented existence. Their legislative establishments, their religious principles, their arrangement of household life, their specialties and their guidelines in connection to the proprietorship and legacy of property, may have been totally gotten; however the members was permitted to get away from their clans, if they wished so; for reasons that were accepted by the whole community. All the remaining ideas of early melodramatic parting are scattered segments of reality covered (often) in misinterpretations and sentimental stories; as has come down through popular fiction (Morgan 1877). This period opens in the Eastern side of the equator with the taming of animals, and in the Western, with the presence of the Town Indians, living in vast joint tenement places of adobe block, and, in a few territories, of stones laid in lines and courses. This period gained prominence with the development of maize cultivation. To add to it, one witnessed plants by water system, which required fake channels, and garden beds spread out in squares, with raised edges to contain the water until retained, in this period as well. As documented, they were all around the cutting edge towards the end of the Middle Period, a segment of them having made bronze, which brought them closer to the higher civilizational procedure of purifying iron and iron-based minerals.

The joint-community was in the idea of a fortress, and held a middle position between the segregated town of the Lower, and the walled city of the Upper Status. To the already existing culture of cultivating maize, beans, squashes and tobacco, were presently included

cotton, pepper, tomato, cacao, and the nurturing of specific organic products. A brew was made by aging and fermenting the juice of the maguey. The locals, notwithstanding, had created a comparative drink by aging maple sap. Earthen vessels had the ability to hold a few gallons of the brew, fine surface and unrivalled ornamentation were delivered by enhanced techniques in the earthenware workmanship. Bowls, pots and water-jugs were produced in plenitude. The disclosure and utilization of the local metals first for decorations, and then for utilities were very commonplace during this phase. Utensils, for example, the copper hatchet and etch, have their place in this period. The softening of these metals were done in the pot, with the plausible utilization of the blow-pipe and charcoal, and by throwing them in moulds, the creation of bronze, crude stone models, the woven article of clothing of cotton, the place of dressed stone, ideographs or pictographs cut on the grave-posts of perished boss, the timetable for estimating time, and the solstitial stone for denoting the seasons, cyclopean dividers, the training of the llama, of other types of canine, of the turkey and different fowls, have a place within this similar synchronic time of ethnicity.

An organization composed in a chain of command, and recognized by an ensemble, individual divine beings with icons to speak to them, and human penances, show up without precedence for this ethnical period. This time, therefore, marks the origin of icon-initiated religious worship. Around this time, in different parts of the world, one can discover household cattle yielding meat and dairy subsistence, yet presumably without plant and without farinaceous sustenance. At the point when the colossal revelation was made that the wild steed, dairy animals, sheep, ass, cow and goat may be subdued and domesticated, and, when delivered in groups and crowds, turn into a wellspring of changeless subsistence it more likely than not gave a ground-breaking drive to human progress and advancement. In any case, the impact would not wind up generally until peaceful life for the creation and upkeep of groups and crowds were institutionally set up and kept growing.

Europe, as a back-woods region in the primary, was unabated to the peaceful state of things; yet the grass fields of high Asia, and upon the Euphrates, the Tigris and different waterways of Asia, were the characteristic homes of the peaceful clans. Here they would normally settle; and to these zones the groups followed their own particular remote precursors, where they were discovered climbing against the rugged terrains, like their other counterpart – the Semitic clans. The development of grains and plants, more likely than not, went before their movement from the grass fields into the back-wood zones of Western Asia and of Europe. This, because, it was basically constrained upon them by the necessities of the household animals which were organically fused and integrated in their arrangement of life. There are reasons, in this way, to suppose that the development of oats by the Aryan clans went before their western relocation, with the special case maybe of the Celts. Woven textures of flax and fleece, and bronze arms and weapons show up in this period in the eastern side of the globe.

From the previous discussions it may throw light that a substantial increase of individual property had by this time, happened. Furthermore, visible sonic (linguistic) changes in the relations of people had occurred. The unorganized regional domain still had a place within the organized clans in a similar manner; however, different segments were carefully divided either for the help of the local government, or in another case, for religious uses, and another and a more vital one, that from which the general population inferred their subsistence (cultivators?), were accordingly segregated and isolated from the gentes, or networks of people who lived in the same ethical gathering. That any individual possessed grounds or houses in his own particular proprietary rights, with capacity to offer and pass on the expense and interest to whomsoever he satisfied, is not only not established at this phase, but even began to gain prominence in practice. Thus the **passing on of inherited property** can be convincingly marked to this period.

Similarly, their method of owning their territories in a like manner, by gentes, or by networks of people, their joint-dwellings, and their method of occupation by related families, blocked the person's responsibility for or of the grounds. A privilege to offer an interest for such grounds or in such houses, and to exchange the same to an outsider, would separate their modes of arrangements of life. Possessory descent in the female line still stayed in a portion of the clans, however most likely in the bigger unit, it had been changed to the male line. The impact of property probably caused that change; that youngsters may partake as agnates in the legacy of their father's property. With descent in the male line, the offspring of an expired individual would remain as the leader of the agnates, and normally get the more noteworthy segment or component of the property and legacy. It is not plausible that the third extraordinary rule (of the three rules of inheritance), which gave a restrictive legacy to the offspring of the expired proprietor, had turned out to be set up amongst themselves. A concrete written dialogue about such legacies by earlier and later authors, than Morgan, is either absent, or without exact data and verification. Establishments, committees based on traditions and conventions, still administered legal inquiries and litigations, and could alone clarify the framework of legality during such times. Without clear confirmation of what we currently have as data, a selective legacy by word-of-mouth; particularly about inheritance, naturally, cannot be attested. The last important phase of barbaric/savage time initiated in the eastern spheres, as per the rules of inheritance, concerns directly with the generation concerned with the utilization of iron. The way towards purifying iron mineral was seen as the early signs of the creation of developments, close to which every other innovation and disclosures hold a subordinate position.

Humanity, despite an excess in information of bronze, were still captured in their advancement for the need of productive metallic devices, and for the need of a metal of adequate quality and hardness for mechanical apparatuses. Every one of these characteristics was found with the advancement of iron. The quickened advancement of human insight dates from this development. This ethnical period, which is considered as everlastingly paramount, could, in numerous regards, be looked at, as the most splendid and amazing one in the whole experience of humankind. It is so filled with accomplishments as to prompt a doubt that a significant number of the advancements credited to it could also just have a place in the earlier period.

According to Marx and Engels (Marx, Engels, Arthur, & Marx 2016), possession of property becomes a social relation when it influences the existence of other people, as ownership over the means of production establishes itself as the most significant social relation, for it enables that class to exercise this ownership to gain exclusive control over the labour process, and thereby wield the power to extort and exploit all producer classes. Additionally, since labour, which they identify as another potential commodity, is also determined by the same laws of production of the commodity (in this case property) itself; the price of this labour, should therefore be in accordance with the cost of labour production.

But how did private property emerge? To this question historical materialism offers its socio-anthropological understanding. It holds that initially there was no forced division of labour but a natural division based on sex and age, ruled by the matriarchate, comprising women who gathered fruits, cooked the meal, grew crops with the primitive digging stick and antler peak, gave birth to offsprings and domesticated beats, etc. But with the development of productive forces, owing to the sophistication of the means of production, i.e., introduction of

heavy implements coupled with physical power of herds in agriculture, the gynocratic grip over the production sector started to shift from female hands to those of the male.

To understand the idea of property in ancient times, through the research and writings of Bachofen and Morgan, it is to be noted as to what Bachofen comments about the different social structures of sexual intimacy, marriage and families (Bachofen 1992). After Morgan, at this point, the issue of the wedded combine was consequently known and perceived by everyone: there could be no uncertainty about whom to call father, mother, child, daughter, sibling, sister, etc. In any case, these names were really utilized in an unexpected way, than how we know them or call them today. The Iroquois considered not just his own off-springs his children and daughters, he also additionally parented the off-springs of his siblings; and they called him father too. The off-springs of his sisters, in any case, like today, were called nephews and nieces, and they considered him to be their uncle. The Iroquois lady, then again, considered her sisters' children, and also her own, her children and daughters, together addressed her as mom. In any case, her siblings' children were also known as her nephews and nieces, and she was known as their auntie. Correspondingly, the offspring of siblings called each other siblings and sisters, as did the offspring of sisters. A lady's own biological children and the offspring of her sibling, then again, called each other their cousins. What is more, these were not minor void names, but rather articulations of real originations of closeness and remoteness, of fairness and contrast in the degrees of connection: these originations fill in as the establishment of a completely explained arrangement of affiliation through which a few hundred unique connections of one individual can and could be communicated.

Furthermore, this framework was not always completely realized by every single American Indian per se; but no special aberration could also be randomly noticed till the present studies and research. These structures additionally hold its legitimacy as relatively unaltered among the natives of India, the Dravidian clans in the Deccan and the Gaura clans in northern India. In fact, even right up to the present times the Tamils of southern India and the Iroquois Seneca Indians in New York State still express relations in excess of two hundred degrees of connection in a similar way. What is more, among these clans of India, as among all those of American Indians, the genuine connections emerging out of the current type of the family often negate the arrangement of biological affiliations totally. There could be an important question of clarifications and verification associated in this. In perspective of the conclusive part played by association in the social structure of all "savage" and "brute" people groups, the significance of a framework so far reaching cannot be explained with phrases. What was important in the relation, perhaps, was not the legal connection designed by biology, but the community's connect of wills, desires and intentions.

At the point when a framework in general is accepted all through America as much as it was believed to have existed in Asia, amongst people groups of very unique races, when various cases of it are found with more noteworthy or less variety, in all aspects, amongst people groups of Africa and Australia, at that point that framework must be verifiably clarified as true, or at least can be considered to not have been talked out of point, as McLennan, for instance, endeavoured to do (Mclennan 2013). The names of the father, child, sibling and sister are no insignificant complimentary types of address; they include very clear and intense common commitments which together make up a fundamental piece of the social constitution of the people groups being referred to. The clarification, be that as it may, was nonetheless, found. In the Sandwich Islands of Hawaii there continued to exist in the primary

portion of the nineteenth century, a type of family in which the parents, siblings, children, uncles and aunties, nephews and nieces were precisely organized in a way, as it took to be required by the American and old Indian arrangements of community association. In any case, there came more twists. Indeed, the arrangement of association in drive in Hawaii did not compare to the "real type" of the Hawaiian family, as has been discussed in Morgan (56). For as indicated by the Hawaiian arrangement of affiliations, all off-springs of siblings and sisters are regardless to other facts, siblings and sisters of each other and are thought to be the regular children not just of their mother and her sisters or of their father and his siblings, but irrespective of the considerable number of siblings and sisters of both their clans without necessary qualification and/or elimination.

While, in this way, the American arrangement of relationship assumes a more "crude" type of the family which has vanished in America itself, yet at the same time it really existed in Hawaii. The Hawaiian arrangement of connection, then again, focuses to a still prior type of the family which, in any case, more likely than not existed; for, otherwise, generally the comparing arrangement of affiliation would never have emerged. The frameworks of affiliation and the types of the family we have quite recently specified, contrast from those of today is the way in which each youngster has more relatives than just one father and mother. In the American arrangement of connection, to which the Hawaiian family very similarly seems to relate, sibling and sister cannot be the father and mother of the same offspring; however the Hawaiian arrangement of relationship, actually, assumes a family in which this was quite the prevalent practice. Here we wind up among types of family which straight-forwardly negate those, which until now, for the most part, were thought to be distant from everyone else who were legitimate in a family structure. The customary view perceives just monogamy, with, likewise, polygamy with respect to singular men, and at the most polyandry with respect to singular ladies; being the perspective of admonishing philistines, it hides the

way that by and by these boundaries raised by official society are unobtrusively and smoothly overlooked.

The investigation of “crude history”, has ethnographic problems of its own, undoubtedly, but even notwithstanding such “crudeness” of histories, it uncovers conditions where the men live in polygamy and their spouses in polyandry, and their regular children are in this way thought to be basic to them all – and these conditions in their turn experience a long arrangement of changes before they at last end in monogamy. The pattern of these progressions is to limit increasingly the hover of individuals contained inside the basic obligation of marriage, which was initially wide, until finally it incorporated just the single match, the overwhelming type of marriage today; commonly known as monogamy. Remaking along these lines the previous history of the family, Morgan, in concurrence with a large portion of his associates, concludes that at a crude stage when unlimited sexual flexibility won inside the clan, each lady started having a place similar to each man and each man to each lady. This however, along with the family, also facilitated an understanding of how to turn real people into notions of property. This notion, certainly inorganic, is man-made, constructed, construed and designed by mankind themselves, to suit their interests in governance and other issues; not in the least for any organic necessity.

Since the eighteenth century, there had been discussions of such a crude state, but at a very basic level. Bachofen – and this is one of his extraordinary contributions – was the first to take the presence of such a state genuinely and to look for its signatures in authentic and religious survivals. Today we realize that the links he found do not lead back to a social phase of indiscriminate sex, yet to a significantly later shape – to be specific, a mass marriage. The crude social phase of indiscriminate sex, in the event that it at any point existed, has a place

with such a remote age, to the point that we can barely hope to demonstrate its reality specifically by finding its social fossils among in reverse or other savages. Bachofen's legitimacy comprises in having conveyed this inquiry to the cutting edge for examination and evaluation. Morgan argues that, vertebrates mate together for a significant period, this is adequately clarified by physiological causes – on account of fowls, for instance, by the female's requirement for help amid the agonizing time frame; cases of loyal monogamy among winged creatures demonstrate nothing about man for the basic reason that men are not dropped from flying creatures. Also, if strict monogamy is the tallness of all goodness, at that point the laurel must go to the tapeworm, which has a total arrangement of male and female sexual organs in every one of its 50 to 200 proglottides or areas, and goes through its entire time on earth having sex in the entirety of its segments with itself. Limiting ourselves to warm blooded creatures, be that as it may, we discover all types of sexual life – wantonness[5], signs of gathering marriage, polygyny, monogamy. Polyandry alone is missing – it took people time enough to acknowledge and (at all) accomplish that. Indeed, even our closest relations, the Quadrumana[6], display each conceivable variety in the gathering of males and females; and on the off chance that we restricted it down still more and consider just the four humanoid chimps, all that Letourneau needs to say in regards to them is that they are once in a while monogamous, once in a while polygamous, while Saussure, cited by Giraud-Teulon, keeps up that they are monogamous (Westermarck 1925). The later declarations of the monogamous propensities for the humanoid chimps which are referred to by Westermarck (Vol. 2) are additionally extremely distant from demonstrating anything. To put it plainly, our proof is with the end goal that Letourneau legitimately concedes: 'Among well evolved

[5]In legal parlance, this word means grossly careless or negligent; reckless; malicious. The term "wanton" implies a reckless disregard for the consequences of one's behaviour. A wanton act is one done in heedless disregard for the life, limbs, health, safety, reputation, or property rights of another individual. (The Free Dictionary Web)

[6]A division of the primates comprising the apes and monkeys; - so called because the hind foot is usually prehensile, and the great toe opposable somewhat like a thumb. Formerly the Quadrumana were considered an order distinct from the Bimana, which last included man alone. (The Free Dictionary Web)

creatures there is no strict connection between the level of scholarly improvement and the type of sexual life' (qtd in Westermarck 1925). And Espinas (*Des sociétés animales*, 1877) says in as many words:

> "The herd is the highest social group which we can observe among animals. It is composed, so it appears, of families, but from the start the family and the herd are in conflict with one another and develop in inverse proportion."
>
> (qtd. in Engels 2012)

Since we know for all intents and purposes nothing unequivocal about the family and other social groupings of the humanoid primates; the proof is straight conflicting, it is not to be stood amazed at. The confirmation as to savage human clans is sufficiently conflicting, requiring exceptionally basic examination and filtering, and apes' social orders are significantly harder to see than that of humans, is self-explanatory. The part that is understood generally, be that as it may, talks about a superior beginning stage. Among the higher creatures the crowd and the family are not correlative to each other, but rather hostile. The social cartography, during these times, demonstrates extremely well, how the envy of the men amid the mating season relaxes the ties of each social crowd or incidentally splits it up. So far as the commonly accepted proof goes, the higher vertebrates know just two types of family – polygyny or separate sets of couples; each frame permits just a single grown-up male, with just a single spouse. The desire of the male, which both, solidifies and separates the family, sets the primary member of the family contrary to the crowd. The desire of the male helps to move the intention of the crowd, the higher social frame, from appearing, or debilitates its union, or splits it up amid the mating time frame, whichever suits them better, in bearing witness to its advancement. This by itself is adequate evidence that creature families and crude human culture are contradictory, and that when crude men were working their way up from the family structures of creature creation, they either had no family at all or

a frame that does not happen among creatures generally; as we understand it today. In little numbers, a creature so exposed as developing man(kind) may battle along even in states of segregation, with no higher social gathering than the single male and female match, for example, what Westermarck, following the reports of seekers, ascribes to the gorillas and the chimpanzees.

For man's improvement past the level of the primitive structures, for the accomplishment which the best propelled nature can appear and grant, something more was required: the intensity of guard lacking to the individual had to be made great by the unified quality and participation of the whole group. To disclose the progress to humankind from preliminary conditions, for example, those in which the humanoid gorillas lived till such day, would be very outlandish; it looks substantially more as though these primates had strayed off the line of advancement and were slowly ceasing to exist, or if nothing else, deteriorating. That by itself is adequate ground for dismissing all endeavours in view of parallels drawn between their types of family and those of the crude men. Common toleration among the grown-up and matured men, flexibility from envy, were the main conditions for the arrangement of those bigger, perpetual gatherings in which lone creatures could progress toward becoming advanced men. Also, truth be told, do we observe these groups to be the most seasoned and most crude type of families whose chronicled presence we can unquestionably demonstrate and which in a couple of parts of the world we can in any case think about today? – Group Marriage, the type of family in which entire gatherings of men and entire gatherings of women commonly have with each other, generally rules out such reasons of envy and inculcated a spirit of community living with each other. Also, at a later phase of advancement we locate the outstanding type of polyandry, which emphatically revolts each desirous impulse and is consequently obscure among creatures during those times.

In any case, as every known type of gathering marriages are joined by such particularly muddled directions that they fundamentally point to prior and more straightforward types of sexual relations, and in this way in the final turn to a time of unbridled intercourse comparing to the change from the creature to the human, the references to creature relational unions just take us back to the plain point from which we were to be driven away for a basic understanding of what began to be understood as good and what it meant not.

What, at that point, does indiscriminate sex actually mean? It implies the nonappearance of disallowances and limitations which are or have been in practice since later times. We have just observed the hindrance of envy go down. In the event that there is one thing certain, it is that the sentiment of desire grows generally late in the history of human emotions. The same is valid for the origination of inbreeding. Not exclusively were siblings and/or sisters initially man and spouse, sex amongst guardians and children was still allowed among numerous people groups till such times. Before interbreeding was concocted – for inbreeding is a creation, and an extremely important one, as well – sex amongst guardians and children did not stimulate any more aversion than sexual intercourse between different people of various ages, and that happens today even in the most philistine nations without energizing any awesome repulsiveness; even 'old maids' of more than 60, on the off chance that they are sufficiently rich, at times wed young fellows as young as in their 30's.

Be that as it may, in the event that we consider the most crudely known types of family separated from their origins of interbreeding – origins which are entirely unexpected from our own perspectives and as often as possible got comprehended as logical inconsistency to them – then the type of sex had been portrayed as unbridled – wanton in so far as the confinements later settled by custom did not as yet begin to exist. In any case, in ordinary practice, in no way did shape or form essentially infer to general blended mating.

Brief pairings of one man with one lady were not at all barred, similarly as in the instances of gathering relational unions today the larger part of connections are of this character. What's more, when Westermarck, one of the most recent essayists to preclude the presence from claiming such a crude state, applies the term 'marriage' to each relationship in which the two genders stay mated until the introduction of the posterity, we should bring up that this sort of marriage can happen under the states of unbridled intercourse without negating the standard of wantonness – the nonappearance of any confinement forced by conventional customs on sex. Westermarck, notwithstanding, takes the stance that indiscrimination 'includes a concealment of individual tendencies', and that in this way 'the most honest to goodness type of it is prostitution' (Westermarck 1925).

As per Morgan, from this crude condition of unbridled intercourse there grew, presumably early:

1. The Consanguine Family, or the First Stage of the Family

Here the marriageable partners are isolated by ages: every one of the grandparents inside the limits of their generation of the family are certainly the married couples of each other; so are additionally their children, the fathers and mothers; the last's off-springs would shape a third hover of basic husbands and spouses; and their children, the great-grandchildren of the principal gathering, will frame a fourth, and so on. In this type of marriage, in this way, just by way of forming precursors and descendants, and guardians and children, all are prohibited from the rights and obligations (as we should state) of marriage with each other; inter-generation. Siblings and sisters, male and female cousins of the main, second, and more remote degrees, are for the most part siblings and sisters of each other, and correctly too, since they are for the most part married couples of each other as wells. At this stage the relationship of sibling and sister additionally incorporates as per normal procedure the act of

sex with each other. In its run of the mill frame, such a family would comprise the relatives of a solitary couple-combination, the relatives of these relatives in every age being again siblings and sisters, and in this way married couples, of each other. The associated family, in this stage, is therefore, summarily terminated. Indeed, even the most crude people groups known to history give no certifiable case of it, in this kind of a family. However, that it more likely than not existed, we are constrained to concede; for the Hawaiian arrangement of association still pervasive today all through the entire of Polynesia communicates degrees of connection which could just emerge in this type of family; and the entire consequent advancement of the family surmises the presence of the affiliated family as an important preliminary stage.

2. The Punaluan Family

On the off chance that the principal progress of married association comprised in the prohibition of guardians and children from engaging in sex with each other, the second was the rejection of sister and male-sibling. Because of the more noteworthy proximity in age, this second progress was vastly more vital, yet additionally more troublesome, than the first. It was affected bit by bit, starting likely with the rejection from sex of one's own siblings and sisters (offspring of a similar mother) first in disconnected cases and after that by degrees when in doubt (even in the last century special cases were found in Hawaii), and consummation with the forbiddance of marriage even between insurance siblings and sisters, or, as we should state, between first, second, and third cousins. It manages, says Morgan, 'a great delineation of the activity of the rule of characteristic choice' (74). There can be no doubt that the clans among whom inbreeding was limited by this progress would undoubtedly grow more rapidly and more completely than those among whom marriage amongst siblings and sisters remained the constitution and the law. How capably the impact of this progress made itself felt is found in the establishment which emerged specifically out of it and went a

long ways past it – the gens, which frames the premise of the social request of most, if not every, savage individuals of the earth and from which in Greece and Rome one steps straightforwardly into human advancement.

After a couple of ages at the most, every unique family in this set up, would undoubtedly be seen to part up. The act of living respectively and respectably (?) in a crude radical family unit which won its place no matter how late in the centre phase of savagery set a breaking point, differing with the conditions yet genuinely positive in every area, to the greatest size of the family network. When such origination emerged that sex between offspring of a similar mother was not right, it would undoubtedly apply its impact when the old families split up and new ones were established (however these did not really harmonize with the large family gathering). At least the lines of sisters would shape the core of the one family unit and their own male-siblings would form the core of the other. It more likely than not, has been in some such way, the shape which Morgan gets from the Punaluan family. It seems to have started out of the related family. As indicated by the Hawaiian customs, various sisters, natural or extended (first, second or more remote cousins) were the basic spouses of their regular husbands, from among whom, in any case, their own particular siblings were, for some reason, avoided. These spouses now never again called themselves siblings, for they were not any more essentially siblings, however Punalua – that is, personal companion, partner or accomplice they might have been.

Likewise, a line of regular or extended siblings had various ladies, not their sisters, as normal spouses, and these wives were considered by each other as their respective Punalua. This was the exemplary type of family structure [*Familien formation*], in which later various varieties were conceivable, yet whose basic element was the commonly basic ownership of married couples inside an unequivocal family hover, from which, be that as it may, the

siblings of the spouses – first one's own and later the secured extensions – and alternately additionally the sisters of the husbands, were barred.

This type of the family furnishes with the most entire precision the degrees of association communicated in the American framework. The offspring of the mother's sisters are as yet her kids, similarly as the offspring of the dad's siblings are likewise his youngsters; and they are every one of the full group of siblings and sisters. Yet, the offspring of the mom's siblings are currently her nephews and nieces, the offspring of the dad's sisters are his nephews and nieces, and they are every one of the original person's cousins. For while the spouses of the mom's sisters are as yet her husbands, and the wives of the dad's siblings are as yet his wives (de jure, if not de facto at least), the social restriction on sex amongst siblings and sisters has now partitioned the offspring of siblings and sisters, who had up to this point been dealt with as one's own particular siblings and sisters, into two classes. Those in the first class remained siblings and sisters as in earlier practices (extended, as per the modern family framework). Those in the alternate and later class, the offspring of the mother's sibling in the one case and of the dad's sister in the other, could not be siblings and sisters anymore; they could never again have normal guardians, neither father nor mother nor both, and along these lines, now out of the blue, the class of nephews and nieces, male and female cousins, ended up at the fundamental level, which in the prior organization of the family would have been appropriated as silly, naive or juvenile. The American arrangement of connection, which shows up as absolutely irrational in any type of family in light of any assortment of monogamy, finds, down to the littlest points of interest, its normal clarification and its common establishment in the Punaluan family. The Punaluan family, or a shape like it, more likely than not, has been at any rate as broad as this arrangement of association.

Confirmation of this type of family, whose presence had aready been demonstrated in Hawaii, would most likely have been gotten from all finished Polynesia if the devout

ministers, similar to the Spanish priests of previous days in America, had possessed the capacity to see in such unchristian conditions much else besides a sheer 'evil entity' (116). Caesar's report of the Britons, who were around then in the central phase of brutality, 'each ten or twelve have spouses in like manner, particularly siblings with siblings and guardians with youngsters', is best clarified as a marriage of gathering. Barbarian mothers did not have ten or twelve children of their own, mature enough to keep spouses in like manner, yet the American arrangement of connection, which compares to the Punaluan family, gave marriageable connections to various siblings, since each of the man's cousins, close and inaccessible, would compulsorily, be his siblings too. Caesar's specifications of 'guardians with youngsters' might be because of misconceptions on his part; it is not, in any case, totally outlandish under this framework that father and son or mother and girl ought to be incorporated into a similar marriage gathering, however this does not hold true in exactitude about the father and the young daughter or the mother and (her) child. This or a comparative type of gathering marriage additionally gave the least difficult clarification of the records in Herodotus and other old authors about network of spouses among savages and brute people groups. The same applies additionally to the reports of Watson and Kaye in their book, *The People of India*, about the Tikurs in Oudh (north of the Ganges): 'Both sexes have but a nominal tie on each other, and they change connection without compunction; living together, almost indiscriminately, in many large families' (Watson 2007).

In the greater or larger part of cases the foundation of the gens appears to have begun specifically out of the Punaluan family. The facts confirm that the Australian classificatory framework additionally gives a starting point to it: the Australians have gentes, however not yet the Punaluan family; rather, they have a cruder type of gathering marriage. In all types of gathering family, it is dubious to know who is the father of a youngster; yet it is sure who the mother is; because of abject biological reasons. In spite of the fact that she calls every one of

the offspring of the entire family as her own children and also performs a mother's obligations towards them, she certainly, knows to distinguish her own particular kids from the others. It is therefore, clear, that along these lines that in so far as gathering marriage wins, inheritance was understood as obligatory to be demonstrated on the mother's side and that subsequently just the female line got perceived. What is more, this is in certainty the case amongst all people groups in the time of savagery or in the lower phase of such savagery. Bachofen was one of the firsts to make this disclosure (Bachofen 1992).

To signify this “elite” acknowledgment of inheritance through the mother and the relations of legacy which in time came about because of it, he uses the term 'mother right', which has been long accepted as the only form of right in property rights. The term is, nonetheless, problematic, since at this phase of society there can't yet be any discussion of 'ideal' in the legitimate sense. In the event that we presently take one of the two standard gatherings of the Punaluan family, to be specific a line of genetic, characteristic and collateral sisters (that is, one's own sisters' youngsters in the principal, second or more remote degree), together with their kids and their own security siblings on the mother's side (who, as per the presumption, are not their spouses), can have the correct hover of people whom we later find as individuals from a gens, in the first type of that establishment. They all have a typical familial mother, by temperance of their plunge from which the female posterity in every age is a sister. The spouses of these sisters, in any case, can never again be their siblings and in this way cannot be slipped from the same genealogical mother; therefore, they don't have a place with the same affiliated gathering, the later gens. The offspring of these sisters, nonetheless, do have a place with this gathering, since descent on the mother's side alone gets checked, since only it is certain. When the boycott had been built up on sex between all siblings and sisters, including the most remote extended relatives on the mother's side, this gathering changed itself into a gens – that is, it constituted itself as a firm hover of blood

relations in the female line between whom marriage was precluded; and henceforward by other normal foundations of a social and religious character, it progressively united and separated itself from alternate gentes of a similar clan.

When we see, at that point, that the improvement of the gens takes after, fundamentally, as well as flawlessly normally from the Punaluan family, we may sensibly derive that at one time this type of family more likely than not existed among all people groups among whom the nearness of gentile organizations can be demonstrated – that is, for all intents and purposes all brutes and edified people groups. Before Morgan composed his book, our insight into aggregate marriage was still extremely constrained. Only very little data was accessible about the gathering relational unions of the Australians, who were composed in classes, and Morgan had till that point of time in 1871 distributed the reports he had gotten concerning the Punaluan family in Hawaii. The Punaluan family gave, from one perspective, the entire clarification of the arrangement of connection in drive among the American Indians, which had been the beginning stage of every one of Morgan's investigations and enquiry; then again, the starting point of the matriarchal gens could be gotten straightforwardly from the Punaluan family. The Punaluan family spoke of a considerably higher phase of advancement than the Australian classificatory framework. It is hence fathomable that Morgan ought to have viewed it as the most important phase of advancement before matching marriage and ought to trust it to have been general in the earlier times which he is talking about. From that point forward one has turned out to be familiar with various different types of gathering marriage, and we presently realize that Morgan here went too far. In any case, in his Punaluan family he had the favourable luck to strike the most astounding, the exemplary type of examples, regarding gathering marriage, from which the progress to a higher stage can be clarified generally as well as specifically too.

For the most essential augmentations as far as anyone is concerned regarding gathering marriage, one could look back to the English minister, Lorimer Fison, who for a considerable length of time examined this type of the family in its exemplary home in Australia (Fison 2015). He found the most reduced phase of improvement among the Australian natives of Mount Gambier in South Australia. Here the entire clan is separated into two awesome exogamous classes or moieties, Kroki and Kumite. Sex inside every one of these moieties was entirely illegal; then again, every man in the one moiety is the spouse by birth of each lady in the other moiety, who again, in turn, is by birth his significant other. Not the people, but rather the whole gatherings are married, each moiety with the other moiety. What is more, one can see that there is no avoidance on the ground of contrast in age or specific degrees of liking, with the exception of, for example, the division of the clan into two exogamous classes. A Kroki has each Kumite lady legally as a spouse; be that as it may, as his daughter, as per the mother's right is additionally to hold the dignities of a Kumite, being the little daughter of a Kumite lady, she is by birth the spouse of each Kroki, including, along these lines, her father. Thus, either this association emerged when, regardless of the dark drive toward the confinement of inbreeding, sex amongst guardians and children was still not felt to be especially terrible – in which case the moiety framework probably began specifically out of a condition of sexual indiscrimination – or else intercourse amongst guardians and kids was at that point illegal by custom when the moieties emerged – and all things considering the current conditions indicate back to the related family and are as much the initial steps towards realizing it.

The last of course, is more likely. There are not, as far as the documented survey of Fison is concerned, any cases from Australia of sexual cohabiting amongst guardians and their children, and generally speaking about the later type of exogamy, the matriarchal gens, likewise implicitly surmises the forbiddance of this relationship as of now in compulsion to

those times when the gens appeared. The arrangement of two moieties is found, at Mount Gambier in South Australia, as well as on the Darling River further towards the east and in Queensland in the north-east; it is along these lines that such structures are generally conveyed. It rejects relational unions just amongst siblings and sisters, between the offspring of siblings and between the offspring of sisters on the mother's side, in light of the fact that these have a place with a similar moiety; the offspring of sisters and siblings, in any case, may wed and establish a family of their own.

Therefore, what we understand from such elaborate insights into primitive family structures are issues on the idea of a family, property inheritances and rights associated with such inheritance units. Earlier, it were the women of the society who had absolute control over the production sector. But the nomadic community of men, after appropriating agriculture and animal husbandry, established itself as a stable society that could rely on its own creative merit for food and shelter. Uninterrupted chain of food supply brought the concept of leisure in human life, which enabled man to think and carve out newer dimensions in his philosophical quest—'who am I?' and 'How have I come into being?' Man gradually, maybe through trial and error, came to realise the potency of his sperms, which fostered in him the idea of 'my seed', finally culminating in enslavement of the female race. Marx and Engels, therefore, concludes—'the nucleus, the first form, of which (i.e. private property – present author) lies in the family, where wife and children are the slaves of the husband. This latent slavery in the family, though still very crude, is the first property...' (Engels 2012)

The principal type of property, in the antiquated world as in the Middle Ages, is inborn property, decided by the Romans mainly by ways of war, with the Germans by the raising of dairy cattle. On account of the antiquated people groups, since a few clans live respectively in one town, the ancestral property shows up as State property, and the privilege

of the person to it as insignificant ownership which, however much, is to be taken as inborn property overall, and is kept to the domains of landed property as it were. Genuine private property started with the people of yore, similarly as with present day countries, with mobile property – (Slavery and community (*dominium ex jure Quiritum*). For the situation of the countries which became standardized out of the Middle Ages, innate property developed through different stages - primitive landed property, corporative portable property, capital put resources into fabricate - to present day capital, controlled by enormous industry and all inclusive rivalry, i.e. unadulterated private property, which has pushed off all similarity of a mutual organization and has closed out the State from any impact on the advancement of property. To this cutting edge private property relates the advanced State, which, bought slowly by the proprietors of property by methods for tax collection, has fallen totally into their hands through the different national obligations, and its reality has turned out to be completely subject to the business credit which the proprietors of property, the middle class, reach out at, as reflected in the ascent and fall of State subsidies on the stock trade. By the negligible actuality that it is a class and no longer is a domain, the bourgeoisie compelled to compose itself no longer locally, however broadly, and to give a general frame to its mean normal intrigue.

Through the liberation of private property from the network, the State has turned into a different substance, adjacent to and outside common society; yet it is just the type of association which the middle class fundamentally receive both for inward and outer purposes, for the shared certification of their property and interests. The freedom of the State is just discovered these days in those nations where the domains have not yet totally formed into classes, where the homes, discarded in further developed nations, still have a section to play, and where there exists a blend; nations, in other words, in which no segment of the populace

can accomplish predominance over the others. This is the situation especially in Germany. The absolute best case of the advanced State is North America.

The advanced French, English and American essayists all express the assessment that the State exists just for private property, with the goal that this reality has entered into the awareness of the ordinary man. Since the State is the shape in which the people of a decision class attest their regular advantages, and in which the entire common society of an age is exemplified, it is only after that the State intercedes in the development of every single normal organization and that the foundations get a political frame. Thus the deception that law depends on the will, is in reality on the very same will separated from its genuine premise – on through and through freedom. So also, equity is in its full swing, lessened to the real laws. Common law grows all the while with private property out of the deterioration of the regular network. With the Romans the improvement of private property and common law had no further modern and business results, in light of the fact that their entire method of creation did not change. With current people groups, where the medieval network was crumbled by industry and exchange, there started with the ascent of private property and common law another stage, which was prepared to do encouraging advancement towards civilizational progress. The plain first town which carried on a broad sea exchange through the Middle Ages, Amalfi[7], likewise created sea law. When industry and exchange created private property further, first in Italy and later in different nations, the very group created Roman common law and was instantly received again and raised, to perfection. At the point when later the bourgeoisie had gained so much power that the sovereigns took up its interests keeping in mind the end goal to topple the medieval respectability by methods for the bourgeoisie, there started in all nations – in France, particularly, in the sixteenth century - the

[7]Amalfi is a town and commune in the province of Salerno, in the region of Campania, Italy, on the Gulf of Salerno. It lies at the mouth of a deep ravine, at the foot of Monte Cerreto (1,315 metres, 4,314 feet), surrounded by dramatic cliffs and coastal scenery. The town of Amalfi was the capital of the maritime republic known as the Duchy of Amalfi, an important trading power in the Mediterranean between 839 and around 1200. (2018)

genuine drive for the improvement of existing laws, which in all nations aside from England continued to be based on the Roman Codex.

In England, as well, Roman legitimate standards must be acquainted with advancement as well as the improvement of civil laws (particularly on the accounts of mobile property). However, it must not be overlooked that law has similarly as meager a free history as religion.) In civil law the current property connections are proclaimed to be the consequence of the general will. The *jus utendi et abutendi*[8] itself declared from one perspective the way that private property has turned out to be totally free of the network of law and scheme of things, and on the other the hallucination that private property itself is constructed exclusively with respect to the private will, the self-assertive transfer of the thing, called the property. Practically speaking, the *abuti* has extremely clear monetary impediments for the proprietor of private property, in the event that he doesn't wish to see his property and consequently his *jus abutendi* go into different hands, since really the thing, thought about just with reference to his will, is not a thing by any stretch of the imagination, however much it might just turn into a thing, genuine property in intercourse, and autonomously of the law (a relationship, which the scholars generally call “an idea”). This juridical deception, which decreases law to the simple will, fundamentally leads, in the further advancement of property connections, to the position that a man may have a legitimate title to a thing without truly having the thing. In the event that, for example, the wage from a real estate parcel is lost inferable from rivalry, at that point the proprietor has absolutely his legitimate title to it, that is the point of origin of the *jus utendi et abutendi*. Be that as it may, he could technically do nothing with it: he possessed nothing as a landed proprietor and what is more, he had insufficient money to develop his ground. This dream of the legal scholars additionally

[8]Ius abutendi, a term in civil law and Roman law, is an attribute of dominium or ownership, best translated as "the right to abuse." By this phrase is understood the right to abuse property, or having full dominion over property, or "the right to destroy or use up the res altogether." (2018)

clarifies the way that for them, concerning each code, it is through and through happy that people go into connections among themselves (e.g. contracts); it clarifies why they consider that these connections [can] be gone into or not voluntarily, and that their substance lays simply on the individual [free] will of the contracting parties. At whatever point, through the advancement of industry and trade, new types of intercourse have been developed (e.g. confirmation organizations, and so on.), the law has dependably been constrained to concede them among the methods of acquiring property.

As the idea of exclusive ownership passed through different stages of production relation and gripped the entire society, it gradually developed into a social practice. Finally, in modern state-centric society private property assumed a legal designation, defined and enforced by the state's political system.

Before the advent of 18th century, English-speakers usually employed the term 'property' in relation to land ownership. In England, 'property' lacked any legal definition until the 17th century. Later, 'Oliver Letwin, a British conservative theorist, observed that the private sector had to be invented. This occurred with the great European trading companies, such as the British and Dutch East India companies, founded in the 17th century. Notions of property, before the Renaissance, assumed that different actors had different relations to the same property' (Morlino, Berg-Schlosser, & Badie 2017).

Till the end of the 17th century it was believed that property was conferred upon the King as an exclusive right, a creation of monarchist governance. But as John Locke's extremely important work *Two Treatises of Government* appeared in 1690, there was a sudden shock in the English society, for Locke argued: 'Government has no other end but the preservation of property', i.e., he regarded property not as an invention of monarchy but something that existed before (Locke 2010). He made a clear distinction between common property and private property. By common property he meant, actually, the absence of private

property, or more precisely '*Open Access Property*'. He maintained that 'God... has given the Earth to the Children of Men, given it to mankind in common.' By private property Locke meant one's personal labour, which he combines with open access property to create consumer and producer goods:

> "Though the earth, and all inferior Creatures be common to all Men, yet every Man has a Property in his own Person. This nobody has any Right to but himself. The Labour of his Body, and the Work of his Hands, we may say, are properly his. Whatsoever then, he removes out of the State that Nature hath provided, and left it in, he hath mixed his Labour with, and joyned to it something that is his own, and thereby makes it his Property. It being by him removed from the common state Nature placed it in, hath by this labour something annexed to it, that excludes the common right of other men."
>
> (Locke 2010)

Locke believed that "the grounds and principles of government necessarily depend upon the origin of property" and "all power on earth is either derived or usurped from the fatherly power, there being no other original to be found of any power whatsoever". The way he links his notions of property with public (in this sense consumer) in general and consumer goods in particular is extremely interesting because he thinks that Adam, the first male creation of God, is the absolute father of any kind of property that can exist on earth. The present author then needs to concentrate as to whether Locke's arguments suggest that there is one beholder of the ultimate universal finite property (Adam) or whether he suggests that no matter whatever the process of redistribution of property is, it needs to go back to the traces of Adam. In the first case, Locke ideates towards an option of open access property where the sum total of all the property belongs to some clock-maker god who does not really

bother about the processes of redistribution of such property anymore; because s/he has nothing to hide, nothing to lose, nothing to withhold.

The second, contrarily could mean just the opposite. It could mean that no matter who is using whatever goods, it ultimately belongs to Adam; strictly suggesting a clue towards enabling property rights. The confusion arises because Locke tends to refer to his Adam as omnipotent and leaves undecided clues for his readers to assume which aspect of Adam is being referred to his omnipotence: the fact that he has so much that he doesn't care about its redistributions or whether that he has so much and each bit should further keep going back to him.

After Locke's second treatise, the reactions that Leibniz routed to the Lockean hypothesis of individual personality continued, above all else, from a unique powerful origination which was no more that of Locke, than it was that of Hobbes. Specifically, the origination of a generous uniqueness that would be "a different world, free of each other thing with the exception of God" finds just the faintest resound in the two English masterminds (Macpherson & Cunningham 2011). Also, Leibniz's answer for the issue of individuation through plan of action to an "inside rule of refinement," or standard of indiscernibles, which depends itself on the outright peculiarity of the perspective embraced by God for making every substance, finds no resound at all in his two antecedents. The enthusiasm of the reactions that Leibniz routed to the Lockean hypothesis of the individual, lives somewhere else, outside the domain of private property. It lies in his raising doubt about the extreme refinement made by Locke (and recommended by the mortalism thesis) between close to home character, which dwells in the solidarity of cognizance, and physical personality, which lays on the solidarity of substance. At base, Leibniz denied that it was

conceivable to imagine that there could be an ethical individual who might not likewise be a physical individual—in other words, a genuine individual. Despite the fact that he didn't utilize the articulation, we could pretty much say that Leibniz expected to restore the Hobbesian idea of the character of substance even while he changed the power and religious philosophy in which this idea had beforehand been inserted (Leibniz & Montgomery 1980).

Leibniz's reactions had as their objective the reclamation of the connection between the ethical measurement of the individual and its physical measurement, a connection that had been slackened by Locke. While Leibniz concurred with Locke in perceiving in man an ethical identity, which lives in the way that the spirit of man is *conscia sui*[9], he declined to consider that "this clear personality could be protected without any genuine character." As he wrote in his Principles of Philosophy, Leibniz imagined that there existed a concordance amongst nature and beauty to such an extent that "things lead toward grace by the paths of nature herself."

This solid assurance of the individual as a characteristic and good individual, notwithstanding, surmises a hypothesis of human interminability, which implies that the ethical issue that emerged when Hobbes considered human mortality, gets blocked. The Leibnizian want of establishing human individual personality on a genuine premise must have as its condition the goals of the ethical issue presented by human mortality through a magical hypothesis of eternality.

Without such a hypothesis, Leibniz's prerequisite of a generous assurance of the ethical individual leads unavoidably to the vanishing of the ethical individual as well as the vanishing of the physical individual. It was this consequence, as we saw earlier too, which

[9]Consciousness of itself; here meaning that a man has an obligation of consciousness to himself/herself.

had driven Locke to certify the autonomy of the ethical individual in connection to its regular support and to suggest that only the exclusive observer of such awareness may legitimize the ascription to a similar individual of an activity performed individual before death upon the arrival of the last judgment. Also, the Lockean fiction that a similar substance could be bearing a few identities—consistently—suggests that it isn't conceivable to ground moral ascription on significant continuity. In guaranteeing the uniqueness and infinity of the individual, Leibniz's hypothesis of substance allows the reverse to happen too: from one viewpoint, he can reject the speculation of the separation of the individual from its substance; then again, he stays away from the theory that an aggregate demolition of the genuine individual could have any bearing on the personality of the ethical individual.

Leibniz, who is of the opinion that nothing concretely defines any substance except the power of God, and adds therefore:

> "Nothing can make us understand immortality better than this independence and extent of the soul, which absolutely shelters it from everything external, since it alone constitutes its whole world, and together with God is sufficient for itself. It is possible for the soul to come to an end through absolute annihilation; but its coming to end in any other way—being destroyed by dissolution, through damage, like a machine—is just as impossible as it is that the world should destroy itself unaided. Changes in the extended mass we call our body could not have any effect on the soul, nor could the dissolution of that body destroy what is indivisible, namely, the soul."

(Leibniz & Montgomery 1980)

The scattering or dispersal of the body does not imperil the everlasting status of the spirit, "for no substance ever arrives at an end, however a substance may extraordinarily change." Leibniz accordingly concurred with Locke in perceiving that the self identity likewise stretches out similarly as the awareness that one has of one's past activities, or to the

extent one's memory broadens, yet he was against Locke's conflict that the identity cannot be reached out past one's genuine memory. Leibniz declined to acknowledge this constraint, as it made a hypothesis of the everlasting status of the ethical individual establishment on memory very incomprehensible. Instead of Locke's genuine memory, he hence restricted a hypothesis of virtual memory, which enabled him to state that the human spirit "keeps dependably in its tendency the hints of all its previous states with a virtual memory which can simply be empowered, since it has an awareness or knows in itself that which every last one of us calls the self (qtd. in Macpherson & Cunningham 2011)." It is in this manner this virtual memory, as it very well may be actualised by cognizance, and not awareness alone, which constitutes the ethical individual. Because of the hypothesis of substance and the hypothesis of virtual memory, Leibniz could conceptualize the solidarity of man's good and common individual reasonably, without need of Locke's response to divine supremacy. In any case, this hypothesis assumes an investigation of awareness considered as a one of a kind model of good personality, as the hypothesis of virtual memory demonstrates; and the exact opposite thing this chapter will endeavour to indicate is simply the manner by which this scrutinized assumption lies on Leibniz's allocation of different enemy of Cartesian components in Hobbes' rationality.

In contrast to Locke, moral philosopher and economist of the 18th century during the Industrial Revolution, Adam Smith, drew a clear distinction between the ‘rights to property’ as an acquired right versus a natural right (Smith & Kelbrook 1998). He identified natural rights to be ‘liberty and life’ and put forth that ‘Property and civil government very much depend on one another. The preservation of property and the inequality of possession first formed it, and the state of property must always vary with the form of government.’

It has been mentioned earlier that 19th Century philosopher Karl Marx and his political collaborator Frederick Engels identified private property as a menace, which catalysed the growth of class society. However, later Marxists, mainly those of the Stalin-era, such as Maurice Thorez, tried to differentiate private property, which he said was absolutely obligatory to socialise, from personal property. In 1934 Thorez categorically stated:

> "It is not communism that expropriates the peasant's field, or the merchant's store, that ruins the small and medium industrialists, helpless to put up with the competition of the trusts. It's not communism that set alight class struggle. But it's capitalism that destroys the property of the little people in order to take it over; that buys at a low price the labour of the worker and makes weigh upon him the full weight of oppression and coercion. War, economic crises, unemployment, the expropriation and ruin of the middle classes are not our doing. They are the result of private property of the great means of production, which has become—after having been a stimulant—a hindrance to economic life and progress. The property of the great means of production is the only one that should be socialised, if we want to lay down the base for a rational economy."
>
> (Thorez 160)

History of the Evolution of Authorship Rights in the West

In Marxist terms, intellectual labour or 'head labour', as Marx mentioned in the First Work-men's International, is a source of creating intellectual wealth or property. This, however, was no Marxist exclusivity, for since the promulgation of the Statute of Monopolies (1623) and the British Statute of Anne (An Act for the Encouragement of Learning, by

vesting the Copies of Printed Books in the Authors or purchasers of such Copies, during the Times therein mentioned) (1710), intellectual property rights came to be recognised as something important. The first known usage of the term ‘intellectual property’ dates back to 1769, when a piece printed in Monthly Review employed the phrase. However, the first instance of modern usage may be traced 1808, when it was used as a heading title in a collection of essays (O' Connell 2010).

In the Statute of Monopolies (1623), An Act concerning Monopolies and Dispensations with Penal Laws, and the Forfeitures thereof: it has been clearly mentioned

> “…And all monopolies, and all such commissions, grants, licences, charters, letters patents, proclamations, inhibitions, restraints, warrants of assistance, and all other matters and things tending as aforesaid, and the force and validity of them, and every of them, ought to be, and shall be for ever hereafter examined, heard, tried, and determined, by and according to the common laws of this realm, and not otherwise”.
>
> (Section 6)

This marks a very poignant moment in the history of the intellectual property where any act of infringement of the same was being considered to be heard by the same system of judiciary as would hear other cases concerning infringements of non-intellectual property. Such intellectual property was at a stage of being therefore capitalized as wealth.

The next important milestone towards ensuring intellectual property rights was the British Statute of Anne or, An Act for the Encouragement of Learning, by vesting the Copies

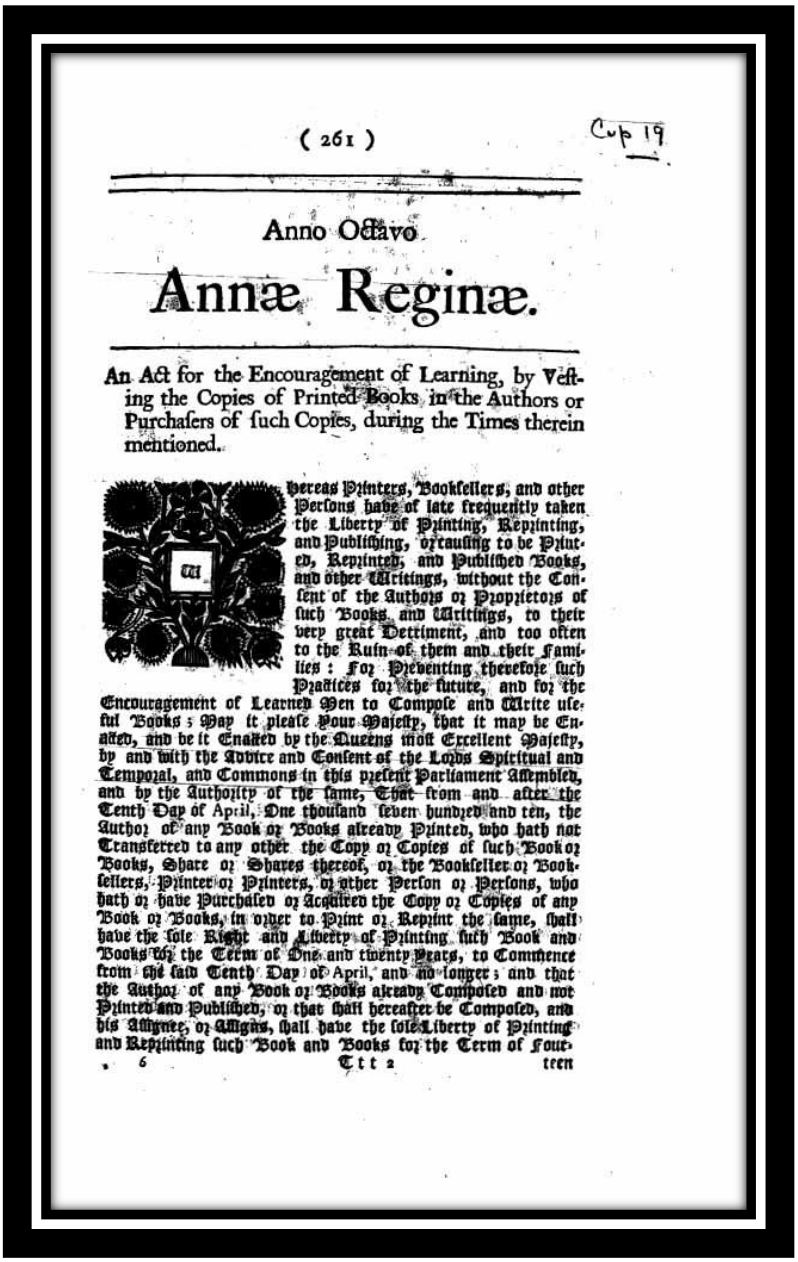
of Printed Books in the Authors or purchasers of such Copies, during the Times therein mentioned (1710). This Statute was the first of its kind to explicitly lay down the rights concerning the acts of copying, having the sole rights towards printing and reprinting of books and other necessary rights to prevent infringement of the properties produced by the authors. This enabled the publishers to keep a check on the process of reproduction of the same content in the name of another author as well as a check on the number of books being printed on that content.

In *Capitalism: The Unknown Ideal*, Ayn Rand comments, 'Patents and copyrights are the legal implementation of the base of all property rights: a man's right to the product of his mind (Rand, Branden, Greenspan, & Hessen 2008).' She further adds:

> "Every type of productive work involves a combination of mental and physical effort: of thought and of physical action to translate that thought into a material form. The proportion of these two elements variesin different types of work. At the lowest end of the scale, the mental effort required to perform unskilled manual labor is minimal. At the other end, what the patent and copyright laws acknowledge is the paramount role of mental effort in the production of material values; these laws protect the mind's contribution in its purest form: the origination of an idea.The subject of patents and copyrights is intellectual property."
>
> (Rand, Branden, Greenspan, & Hessen 2008)

She further points out that a "discovery" cannot be patented, only an "invention" can, making the importance of "originality of work" a prerequisite for copyrighting the material, more pronounced. Just as the invention requires a physical embodiment, a story needs to be written and then printed for it be to copyrighted. Through such arguments, she not only

justifies the importance of copyrighting intellectual property, but also understands the "printed form" of an intellectual work as an inevitable end.



(261)

Cap 19.

Anno Octavo

Annæ Reginæ.

An Act for the Encouragement of Learning, by vesting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned.

Whereas Printers, Booksellers, and other Persons have of late frequently taken the Liberty of Printing, Reprinting, and Publishing, or causing to be Printed, Reprinted, and Published Books, and other Writings, without the Consent of the Authors or Proprietors of such Books and Writings, to their very great Detriment, and too often to the Ruin of them and their Families: For Preventing therefore such Practices for the future, and for the Encouragement of Learned Men to Compose and Write useful Books; May it please Your Majesty, that it may be Enacted, and be it Enacted by the Queens most Excellent Majesty, by and with the Advice and Consent of the Lords Spiritual and Temporal, and Commons in this present Parliament Assembled, and by the Authority of the same, That from and after the Tenth Day of April, One thousand seven hundred and ten, the Author of any Book or Books already Printed, who hath not Transferred to any other the Copy or Copies of such Book or Books, Share or Shares thereof, or the Bookseller or Booksellers, Printer or Printers, or other Person or Persons, who hath or have Purchased or Acquired the Copy or Copies of any Book or Books, in order to Print or Reprint the same, shall have the sole Right and Liberty of Printing such Book and Books for the Term of One and twenty Years, to Commence from the said Tenth Day of April, and no longer; and that the Author of any Book or Books already Composed and not Printed and Published, or that shall hereafter be Composed, and his Assignee, or Assigns, shall have the sole Liberty of Printing and Reprinting such Book and Books for the Term of Four-

6 Ttt 2 teen

[Fig. 2: This image content is available under the Creative Commons Attribution-ShareAlike License]

In this context, initially, the field is excessively generalized, with a lot of consideration paid to the conflicts over universal (worldwide and provincial) rules and lawful arrangements to the detriment of examination of what is occurring inside nations. Unquestionably, universal laws on intellectual property, regardless of whether Internet

Protocol arrangements of territorial and Intellectual property exchange understandings (RBTAs) state, force imperatives on national strategy and set up the parameters of what sorts of strategies are reasonable. However inside these parameters the inquiries of how active reactors react to outer requirements and how nations approach actualizing their remotely inferred commitments warrant significantly more consideration than they normally get.

A distinctive component of the legislative issues of learning and data is that the partition between the circles of generation and utilization is typically powerless and now and then non-existent. In procedures of information generation, inputs are changed – yet more often than not in the manner in which unmistakable data sources are changed are observed to create changes in procedures of mechanical creation. The logical information that is utilized in examine ventures isn't on a very basic level different from the information that is created in this procedure. In fact, nor are there straight out differences between the information writers and artists based on how they draw upon and the books and music that are the result of their work. These perceptions are not intended to deny that new information is produced, nor to refute active characters' imaginative and inventive commitments. However as opposed to mechanical creation forms, where for instance metal is changed into press which is then changed into a road sign (to think of one as essential section of a solitary creation chain), there gives off an impression of being close to nothing if one is to compare classifications of crude material, (for example, mineral), moderate information, (for example, press), and final item, (for example, road sign) during the time spent producing scientific or social information.

The change of metal into iron and iron into our road sign in a general sense changes the sources of information, and extra modern procedures would then be required to re-establish them to their past states. That isn't the situation in learning creation: makers of information are likewise clients of similar kinds of information. The crude materials that add

to new music and writing are similar thoughts and types of articulation that officially existing music and writing consists of; in like manner, creating new PC programming involves progressively complex manoeuvres of ones, yet by the day's end we are still left with ones. This directly gives us an idea of a social reality that in a general sense structures the arrangement field. This is naturally similar for all domains that are concerned with intellectual content production. The crude materials that add to new music and writing are similar thoughts and types of articulation that effectively existing music and writing consists of; in like manner, producing new PC programming involves progressively complex plots of ones and zeroes, however by the day's end we are still left with the same ones and zeroes. Here the idea of prosumers (Toffler 1985) isn't a vacant expression yet a social reality that on a very basic level structures the arrangement field. This is valid for the biochemical learning used to make medications as well. The connection amongst utilization and generation depicted as above shows up very different scenes in the event that we consider the genuine modern forms that are utilized to deliver unmistakable merchandise in view of learning and data. However these unmistakable items are simply the conveyance holders, not the ensured intellectual property, and the requirement for capital and aptitudes to deliver the conveyance holders is contingent on the earlier presence of the fundamental learning and data.

Certainly, in a few zones the conveyance vehicles themselves have changed, so music and programming can be disseminated without substantial CDs and DVDs. However even these progressions involve procedures of physical and modern change, for example, the production of the vital broadband foundation, and these mechanical changes are separate from – and resulting to – the changes of the learning and data that yield the basic data content. On account of learning and data themselves, the lines between inputs (utilization) and yields (creation) are astoundingly foggy. It isn't only the foggy fringes amongst sources of information and subsequent yields that recognize learning and data, yet in addition to it,

the added connection amongst all kinds of information directly sources the yields. We realize that one individual's utilization of learning and data does not affect the sum accessible for others to utilize it; that is, the utilization of learning and data is non-rivalrous. In any case, it is more than that: the utilization of learning and data can really lead to increment – and not diminish – the load of information and data. Not exclusively can learning and data be devoured without affecting its accessibility for others; however its utilization, thus, is created from more information and data. Students and scholars in schools and colleges don't "go through"; in the sense of it getting used up; the learning and data that is conveyed to them.

Despite what might be expected, educating makes more to (of the same and at times even new) learning without lessening the supply of existing information. Along these lines, learning and data dislike the beacon that can be utilized by each intellectual property off the drift; they are more similar to a beacon that, once implicit in one place, can give introduction to intellectual property off every last drift. These perceptions have significant ramifications for intellectual property with governmental issues. From one viewpoint, given the broadness of client networks, we may hope to see more extensive and more fluid aggregates for intellectual property regulations that encourage the utilization of learning and data. We may accordingly hope to see strange alliances which will, all things considered, be stood up to – due to their fluidity, size, and scattering – with commonplace aggregate activity issues. An extra and related ramification of the elusive character of learning and data is that political conflicts over intellectual property have a tendency to be inclined to elements of expanding nature. The beneficiaries of solid intellectual property strategies gather assets that enable them to press for additional reinforcing, and establishments made to execute and authorize intellectual property tend to push toward this path also, while those performing artists who are burdened by fortified intellectual property frameworks regularly encounter lessened ability to activate for changes that would extricate intellectual property leads and encourage

utilization of the intellectual commodities. Solid intellectual property frameworks are along these lines prone to produce a nearly little gathering of champs who benefit altogether and, thus, have a solid enthusiasm for keeping up and additionally fortifying the framework.

Notwithstanding what is outstanding about mechanical actors in the biotechnology domain and content-based verticals, other particularly intriguing on-screen characters in this regard are patent experts and college officials/researchers. The former, for the most part benefit from more grounded intellectual property administrations that certify expanded livelihoods, while the last may see more grounded intellectual property administrations as introducing chances to make logical research more profitable, or may see them as obliging college spending plans and restricting the opportunity of scholastic research, because of dearth of academic investments and funds. Increasing expenses of the pharmaceutical industry because of more grounded intellectual property laws and the following activation and opposition are one case of this marvel. However scenes of assembly have a tendency to be encouraged by specific conjunctures of performers and occasions that are a long way from being programmed. Building and maintaining collusions to change intellectual property laws are phenomenally perplexing and troublesome procedures.

In reality, a significant number of the sections in this volume centre around examples of aggregate activity in the intellectual property legislative issues, and specifically how clients and proprietors of information frequently display exceptionally different – and uneven – examples of political activation. They particularly focus on unforeseen unions and examples of activation around intellectual property, and in doing as such uncover the restrictions of general instruments for understanding the inexorably disagreeable governmental issues of the said intellectual property. In Europe, for instance, programming software engineers could assemble mass dissent against a venture to change patent law while purchasers were not able do as such as to copyright requirement. The immaterial nature of

learning and data likewise makes approaches that plan to limit the utilization of information by building up intellectual property and authorizing intellectual property rights as something that is monstrously difficult and along these lines reliant on huge administrative endeavours and costs. This unavoidable element of intellectual property, obviously, implies that the holes amongst the laws and the truth are regularly gigantic. While examiners might centre on the previous, performing artists' interests and political techniques are formed by the last mentioned, driving, once more, to unforeseen examples of conduct.

The high perceivability and efforts required to authorize intellectual property additionally offer significance to surrounding forms. To the degree that limiting access to information is confined as a fundamental precondition to development and enhancing financial welfare, the expenses and efforts of doing as such may seem defended. However in the event that avoidance from information is encircled as a hindrance to advancement, social prospering, and monetary improvement, at that point the expenses of doing as such might be all the more effectively focused by adversaries. It is exactly therefore that such a significant number of the sections in this volume centre around the way toward encircling and the part that epistemic networks play in changing the limits of intellectual property legislative issues.

Without a doubt, the tenets of law, similar to the structures of the lawful framework, are multifaceted, once in a while entangled, and regularly hard to translate. The Internet's arranged correspondence and the digitization of content make it even more entangled for courts to translate the law in light of the fact that digitized content has qualities to which the 1976 statute does not talk specifically; along these lines, issues that emerge because of the utilization of digitized content are yet disrupted. For example, since copyright insurance results for a work that is "settled" in an "unmistakable" frame, portrayals of what constitutes "fixity" and "substantial quality" as to digitized content must be clear. What's more, when instructors utilize the Internet as the locus of classroom support, which can make classroom

material available around the world, especially in remote learning classes, they confront intricacies in deciding if the transferring of works for classroom utilization is ensured under reasonable utilization schemes. In fact, basically characterizing classroom is troublesome when the locus for class cooperation in separate learning gatherings in is "the internet." Since the current statutory law neglects to mirror the progressions that utilizing new innovation brings, it is often understood as essential that academicians who influence utilization of innovation in their classrooms to be associated with influencing the law that will affect their work. Statutes are made in both state and government courts, yet the copyright statute, governmental declared and given power for authorization by the Constitution, supersedes the state statutes.

The ability to sanction governmental restriction protected innovation law is expressed in Article 1, Section 8 of the U.S. Constitution, which furnishes Congress with approval to make laws that give "writers and creators the elite ideal to their individual compositions and revelations" subject to constraints by people in general's privilege of access. The courts can likewise make law by upholding and deciphering the statutes, refuting the statutes, or making new law based on precedence-based laws. The 1976 Copyright Act in the united States of America, gives a copyright holder a constrained selective ideal to shield the work from encroachment; where a court establishes that the authority lies with the offended party, it can uphold the statute against the encroaching party. Courts can likewise make law in regions not secured by the statutes, the "customary law" branches of knowledge.

For instance, the law neglects to address whether a maker can utilize copyright to ensure an articulation particularly in light of the fact that it is close to home or private, so the courts have made laws in the rights to attention and protection under custom-based law keeping in mind the end goal to cure circumstances not straightforwardly treated in the statute. At the point when precedential orders of the court turn out to be entrenched, the

governing body normally in the end presents them as a bill and systematizes them keeping in mind the end goal to give a clearer statutory law. Courts may likewise make law by deciphering the statutes while choosing court cases. Especially in light of the present statute, which gives no particular shape with respect to treatment of advanced correspondence, this elucidation is vital. For instance, as said earlier as well, the statute does not clarify the implications of fixity and substance as they identify with digitized correspondence; in this way, it is the courts' business to do as such.

Translation is troublesome in cases that require learning in specific territories of data like that engaged with the Internet; legal counsellors and judges are frequently not mindful of the unique relevant conditions that encompass the requirements for utilization of innovation and create specialized instead of reasonable comprehension, which can prompt profoundly negative elucidations of the law. For example, when courts apply entirely mechanical definitions to decide the parameters of fixity, they may find that an advanced archive isn't just settled yet in addition duplicated when it winds up obvious in a PC framework. The outcome would imply that only survey advanced work could be viewed as an infringement of copyright; along these lines, the strict mechanical translation, without setting, could prompt a chilling impact on the dispersal of computerized data. In this way, legal counsellors and judges must seek after cases including computerized innovation with an entire relevant and additionally printed comprehension of the effect of their understandings keeping in mind the end goal to make law that is substantial. Instructors and different people with specific interests in influencing and creating intellectual property law as it identifies with innovation can be expected to teach lawmakers, attorneys, and judges by taking an interest in associations with their respective subject areas, and in addition by creating contacts with neighbourhood bar affiliations and political associations keeping in mind the end goal to seek after these instructive purposes.

Moreover, all people take an interest in making protected innovation laws by ethicalities of partaking in the public eye. One type of direct investment is in turning into a prosecutor in a protected innovation suit. Be that as it may, in 1998, the No Electronic Theft (NET) Act was passed and marked into law, making it conceivable to charge and convict a violator of copyright under criminal law, which represses clients from seeking after their legitimate utilization of copyrighted materials. No case has yet been brought under the NET Act, and it is improbable that a criminal case would be brought aside from under outrageous conditions. Licensed innovation suits are basically respectful instead of criminal cases, started when one individual or association records an objection against another, asserting that it has duplicated or utilized its intellectual and scholarly idea. Lawful process can be scary and can make a boundary of dread that restrains people's declaration of their unavoidably expressed rights being used of intellectual ideas. Be that as it may, new law is made and old law is cleared up by people's support in legitimate procedures.

In fact, all people do take an interest all the while, either by testing the issues to set up answers for what is passable as reasonable utilization of materials in classroom settings or by staying quiet out of dread or aloofness and along these lines making an assumption of "passive consent" with the improvement of law as it seems to be. A considerable lot of the hierarchical and protected innovation rules and copyright circulars in sites and print materials are over-restrictive. Likewise, in adding to the discernment, utilizing copyrighted materials is completely disallowed. However, these rules are not laws; they are just common understandings of the law, based on conventions. What is more, when they demonstrate that copyrighted materials are completely confined to its utilization values, they are wrong and deceiving in the first place. Reasonable utilization makes the arrangement expectation of free expressions and gives particular language encircling utilizations that are not confined by the copyright law.

In spite of their feelings of fear, clients should realize that they are lawfully engaged to utilize copyrighted materials inside the parameters of such fair and reasonable terms of use. Academicians and individual clients might be scared that their activities in utilizing scholarly items could prompt an exorbitant suit. At the very beginning, the approaching assumption with respect to licensed intellectual property rights is that the copyright holder keeps up the most grounded allowances of security from the statute. This assumption is supported by protectionist attorneys who tout the solid security of rights to creators and innovators but however refuse to see the naturally constructed restrictions in the light of those rights. Materials needed to "help" the non-lawyer, non-initiated to "comprehend" licensed intellectual property law regularly do likewise.

A case of the run of the mill protectionist-based data is the Cyber-law offering, accessible on-line for nothing and touted as a short course in licensed intellectual property issues. This material is given on-line, proposed as a preliminary reading for non-lawyers who have an enthusiasm for finding out about licensed intellectual property issues. To get this data, the member should just buy in to the Cyber-law list. A few times each month the member gets an email message that "clarifies" a part of the licensed intellectual property law in straightforward, unlawful, and non-detailed language. The Cyber-law membership initiates no discourse and no real way to send reactions and feedback of the presented material on different beneficiaries of the Cyber-law "course." The data given is protected and arranged. In neglecting to give necessary details, regardless of whether for disentangling the data for non-lawyers or otherwise, it precludes references to proclamations in the statutes that favour clients' rights to copyrighted materials. Moreover, expansive proclamations that take a solid position for ensuring writers' rights are normal to the legitimate handbooks or ground works that are accessible for non-lawyer makers who need to know how to shield their function from manhandling by others. Handbook journalists centre on securing the interests of writers

to a limited extent on the grounds that the reasons and interests of users who purchase handbooks are in knowing how the laws will ensure their interests in creation; books that address these users' issues offer such solutions all the more promptly. Truth be told, there is a component of intelligence in giving cautions as opposed to hostile data. At the end of the day, creators who give material that disclose how to ensure data protection are not prone to be dependable if a client sues for her rights to get to the law, given that the data incorporated into the treatise is a right posting of the statutory law as expressed.

On the off chance that, then again, a handbook essayist gives a treatise on the most proficient method to seek after a privilege to utilize another's work, especially in light of the fact that reasonable utilization is so logically arranged that the outcomes change from case to case, the hazard is high that an author would give data that could involve a user in substantial legitimate procedures. Presentation of the Internet into regular trade has caused a protectionist drift among law experts. Legal counsellors are scrambling for approaches to secure their customers' advantages during a time where innovation makes it less demanding than at any other time to disregard copyright holders' rights. Digitization not just makes it simple to duplicate material rapidly and precisely, yet it permits an expansion of reproductions and disseminations in unpredicted times that was at no other time conceivable. Most books for non-lawyers are composed for users who need to make and utilize material for business markets, and many offer these as legitimate feelings of fear about ensuring their scholarly items of intellectual nature. These guidelines vouch to properly address the present group of users' interests. Furthermore, the colossal dominant part of licensed innovation is that legal counsellors are contracted by customers. For example, creators, film makers, artists, and programmers, whose intrigue is in ensuring their work, finds that the vast majority of the protection work done by licensed innovation legal advisors happens in circumstances in which cases the bend turn on arguments about copyright, trademark, or patent proprietorship;

contract understandings; or foundation of work for employee connections. It is characteristic that these legal counsellors, as essayists, would seek after a similar protectionist position that could drive their ordinary work into the intellectual domain; this is the data they know well and that will, to their psyches, position an advantage that their users would enjoy the most.

At this point, it seems to become quite clear now that Intellectual Property Rights include Authorship Rights within its own folds. Authorship Rights possess two aspects—the moral one, i.e., the right to acknowledgement—a perpetual feature, and the economic one—the right to earn profit from her creation. An authorship right includes the right to authorise the reproduction of the concerned work in any form. Authorship Rights are a part of the copyright law that gives the creator of an original work the exclusive rights to it, albeit for a limited time. Such rights apply to a wide range of creative, intellectual, or artistic forms, or works—although does not cover the ideas and the information expressed in the piece. It is only the form or manner on which it is applicable.

An author's exclusive right over her intellectual produce was first legally referred to in the US Constitution of 1787. Its article 1, Section 8, Clause 8, bestowed on the Congress the power 'To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries'. Through this the Congress was empowered to enact the legislations that were involved with governing copyrights and patents. Many argue that Author's Rights is a direct translation of the French term *droitd'auteur*, also German *Urheberrecht*, since it was first promoted in France in 1777 by Pierre-Augustine Caron de Beaumarchais, a close confidant of Benjamin Franklin.

Prior to the invention of printing, the requirement for this right was not perceived as a necessity owing to the very less number of handwritten copies as also to the limitations in

provisionally remaking handwritten copies of a document. There were not many authors by profession too. But from the sixteenth century onwards, to facilitate the control of the spread of thought and to guarantee the right of the bookseller, the police of printing erected the printing-houses in monopoly. Before any book would be printed, it became mandatory for every bookseller to apply to the king for copyrights. Gradually, the situations concerning intellectual property rights began to change. With the author's rights now in place, it was no further the fonts on the paper as a material thing which were considered, but the content of the tome.

The Indian Copyright Act, 1957, is the first such legislation in India post-independence which has also been amended six times since 1957. The copyright act of 1914, from which the act of 1957 largely takes on, with amended provisions for establishments of Copyright Office and a Copyright Board is still considered for works dated prior to 1957.

The Indian Copyright Act, 1957 interprets the contexts of copyright within the key parameters of any kinds of original artistic work, adaptations (original) of artistic works, conversions of artistic works from one form to another, rearrangement or alteration of an earlier work, etc. yet, in each case maintaining a certain notion of novelty in each new rendition.

In the current scenario, it is quite understandable now that an infringement of Authorship Rights could lead to legal penalty in almost any country of the world. Infringement is 'reproducing, distributing, displaying or performing a work, or to make derivative works, without permission from the copyright holder, which is typically a publisher or other business representing or assigned by the work's creator (Wikipedia 2018).'

Such actions are often termed as ‘piracy’. Mr. Darrell Panethiere, Attorney at Law (Member Illinois Bar; US Supreme Court Bar) and former Chief Counsel, Intellectual Property, US Senate, at the request of UNESCO Secretariat for the 13th Session of the Intergovernmental Copyright Committee, 2005, came out with a paper: ‘The Persistence of Piracy: The Consequences for Creativity, for Culture, and for Sustainable Development’, where he emphatically stated:

> “The cultural industry with the longest history of dealing with piracy is, of course, book publishing. Piracy continues to plague authors, particularly in poorer countries where trade in pirated books often exceeds the legitimate market, but also in established markets.”
>
> (Panethiere 2005)

Enforcement of copyright is generally the responsibility of the copyright holder. The Anti-Counterfeiting Trade Agreement (ACTA), signed in May 2011 by the United States, Japan, Switzerland, and the EU, and which has not yet entered into force, suggests that its parties go for criminal penalties, including incarceration and fines, for copyright and trademark infringement, and obligated the parties to take legal steps for any observable infringement. Of course, there are several limitations and exceptions to the copyright law, which permit controlled use of copyrighted materials across different platforms, particularly the digital spaces.

Differences between Intellectual Property Law and Intellectual Rights Law

Intellectual Rights (from French *droitsintellectuels*) Law is also used to refer to the legal protection of the intellectual capital but differs from the Intellectual Property Law in

certain conceptual areas. In 19th century Europe, certain advocates were of the opinion that intellectual capital needs to be protected in very similar ways as any other "physical property" would be protected from theft or manhandling. However, advocates pro Intellectual Rights Law believed that intellectual capital cannot and need not replicate the qualities of a physical property; hence the terms of its protection need not be facsimile in nature to Intellectual Property Laws. Rather, they wanted a restructuring of laws to enable the protection of such capital that is not physical; truly intellectual in nature. A different opinion states that Intellectual Rights protect works of a temporary nature of shorter time span as opposed to Intellectual Property Laws which is comparatively more permanent in nature.

Chapter 3

Information Imperialism: Investigating the Binary between the "Information-Self" and the "Information-Other"

Information Imperialism: Investigating the Binary between the "Information-Self" and the "Information-Other"

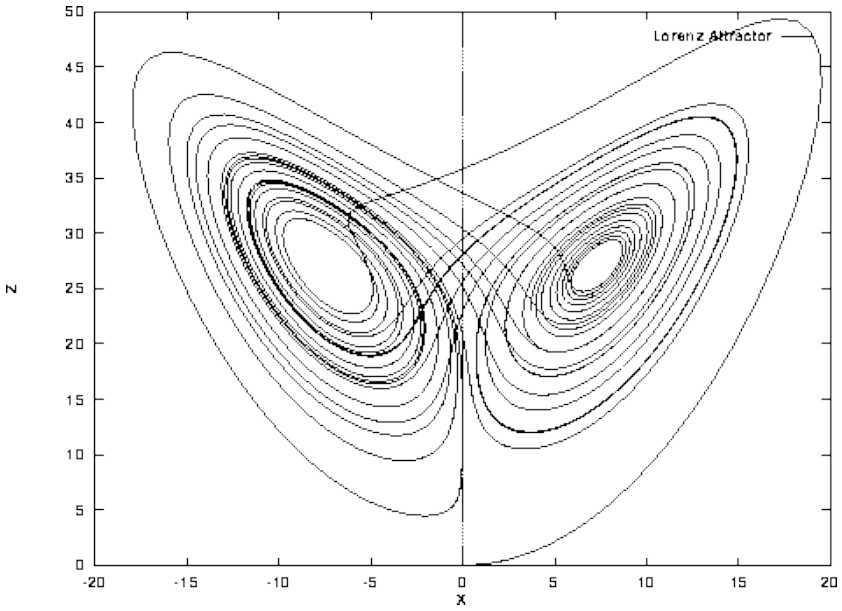
This chapter tries to solve a jigsaw puzzle containing pieces on economics, information, power and dissemination of knowledge. On one hand it needs to ask, whether questions on banking, investment, interests, money, taxes, etc. deal with economic concerns, or whether they have to be understood as studies in political economy or philosophy. Or further still, we need to ask questions like, whether categories of sociological concern like "exploitation" are political in nature or philosophical. The problems of understanding history or civilization as a study of international politics is like playing football in a green field with an excuse of studying Botany. While a Botanist may at best play the game of football well, it is not compulsorily true that the footballer will know her Botany well, because she has a constant touch with the greens. The ideological function that operates at different levels of "indisputable validity" of history so as to provide an optimal progress of human thoughts is therefore an aggregation of who spoke best; not what needed to be said. This argument is primarily based upon two presumptions: it is not possible to know what actually needed to be said; because "need" is such kind of a sociological premise, that it is made, twisted, remade and/or destroyed not upon sets of rules; but upon sets of ever-changing rulers. The second more important question is if the principles of specific ethics decide upon the choice of the best speech then can such speeches be studied in order to know the dominant phases of ethics in the history of evolution? If the second is true, then one, regrettably, has to admit that dominant ethics are congruent with not just the speech, but the speaker; in which case the question of exploitation, pointed earlier, seems to have an operational value: who was allowed to speak and in process, who was prohibited and why?

The privatization of the socialized, to say the least, is uncompromising in nature. The absoluteness of rights is established not as an ethical category but as an economic one. This is because this absoluteness revolves around sustainability of certain stagnant recognizable values, which in turn revolves upon and affects providence, property, etc. If such property is privatized, then, like a chain reaction, the ethics get privatized too. What also gets surreptitiously privatized is the human thought; the free speech; the capacity of recognition of this absoluteness. What is to be thought of is the fact that is privatization, in itself a homogenous category? Is it the same thing to privatize the telecom industry in the same way as wheat and/or security services? Is trading with public goods the same as trading with "Information"? Is information (not) a public good as well? Should different sets of economic analyses apply for different kinds of public property? While it is easy to say that even those people, who do not participate in the making of the hotel industry can reap its benefits, can this also be said about the information industry? Can there be a single participant from the human species who does not participate in the production, formulation and modification of information? The modes of production of information are of course complex, because there are many non- coinciding categories that produce similar information like those sets that regularly coincide willingly or unwillingly. However, the character of information as a public good is so illusory that it is often suspected because of its undefined terrains of profits, margin, analyses and other trainings in economics.

The initiation of the Second World War in the latter part of the 1930s saw a rapid increase in development of new academic and vocational disciplines. All countries involved in the great brawl—socialist and capitalist alike—spent millions of sterling-pounds on Research and Development purposes. On the one hand, there were destructive inventions such as the nuclear bomb, different lethal ammunitions etc.; and on the other, human civilisation witnessed blissful creations in the field of scientific knowledge for which it

conferred upon the creators great laurels of glory. The scientific marvels in the form of Penicillin, a group of antibiotics prepared from *Penecillium fungi*, and Colossus, the first programmable electronic digital computer, radicalised the realms of science and technology, society and polity. Although the Great War had inflicted upon the world populace miseries and poverty of exceptional degree, the humanitarian contributions of the scientists were constantly trying to be able to mend their wounds. One might, at this stage, wonder whether preparations of antibiotics indeed can bear any effect on a society's politics. How does one field, bear such effects on another in a seemingly disparate disciplinary world? In order to understand the relation, we too have to look at yet another seemingly disparate theory of mathematics popularly called the "chaos theory". This radical theory has often been questioned, challenged or even trivialised by earlier practitioners of mathematics in a huge way. Nonetheless, this could not be overturned as baseless, or be judged as outright non-mathematical in nature. Edward Norton Lorenz (23 May 1917 – 16 April 2008), an American mathematician and meteorologist at the MIT, was the pioneer of the chaos theory, who worked on the mathematical scheme of the "Lorenz Attractor" and introduced the term "butterfly effect".

Chaos theory is a mathematical system in which dynamic components yield extremely varied results due to differences in initial or later conditions. Very small differences (like rounded up decimals) can combine in large volumes to create such different outcomes that any study on speculation or mathematical computation would practically be rendered impossible. What begins as minute differences often end up creating completely different results than the conditions and contexts they began from.



The Lorenz Attractor

[Fig. 3: This picture has been duly taken from the internet under the Creative Commons' Attribution-Non Commercial 2.0 Generic license.]

Since then, the idea that any small differences occurring in one place as a result of a specific set of causes and stimuli can expand to huge proportions in the same or different domains got importance in other realms of science. Lorenz pointed out that if a butterfly fluttered its wings in Venezuela, it could as well produce a huge tornado in China. The cause of formation of the storm as a result of such fluttering of wings is neither specific nor accurate (Lorenz 1993). It forms as a result of many other causes that have taken place in different parts of the world weeks earlier, which in very small ways combine and contribute in a chain or series of actions. The causes that are unpredictable are minute but not absent; small but not insignificant. This often leads us to another more important philosophical question as to whether any two things on earth can ever be unconnected (even if they are apparently disconnected). Lorenz believes that the small causes do have connections; hence they are not "chaotic" per se, though so complex that the relations are hard to locate and specify.

Chaos theory becomes all the more intriguing and challenging when it is applied to the domain of humanities and social sciences. Can chaos theory be applied to understand the influx in the share trade and stock market? For a sector such as this which depends potentially so much on speculation, can chaos theory ease the conditions of speculation or will it further tend to complicate them? Next, what happens to the "industry of information"? If information is a result of a network of human/non-human relationships, then how chaotic or causal are the processes of the modes of production of such information? Chaos theorists argue that arbitrary assumptions should be necessarily denounced (first step against speculation?) because no market or industry specialist can be omniscient of the future by a study of common, current and general trends. Common, current, general trends are born out of smallest of events which in turn are born out of smallest of conditions of production. Any speculation needs to presume that the associated conditions of production will remain constant in the future for the speculation to hold true. This is not just a faulty assumption but a dangerous one too, for it not just tries to erase newer possibilities of production, but tries to underlook cultural, racial and other individual or collective specificities which would result in differences of causal conditions. A crucial fact of human history is that all historical events are interconnected, each bit of information is formed out of necessity of some other bit of information which in turn from another, and so on. No amount of training can "smooth out" data irregularities in the name of exceptions. It is these irregularities that define human existence, it is these irregularities that celebrate differences; to smooth out on such data is to disrespect such differences. Cause and effect do permeate humane tendencies between each other, but such interconnections are not homogenous and thankfully so. These differences are the units of the "other". To deal with the information industry is a very sensitive and risky affair. In this, one cannot tend to overlook any or all detail. If the majority of data are in

conformity with the general (data-self?), it doesn't mean that the exceptions (data-other?) can or should be overlooked. If it is overlooked then we will tend to enter that same self-other binary of political exclusion which seems extremely important for an academic engagement for a liberal or radical, but insignificant when it comes to practices of data and information. Philosophically, the chaos theory plays an important role to researchers of the humanities. It shows us certain possible domains of political subversion that exist in primary information.It goes beyond doubt that primary information is that information upon which later researches would be built, argued, contested, changed and accepted.

Does this not tend to break the basics of mathematical and political economics from within? Does it not say that all your theories could be heavily questioned because they have been built upon tendencies of commonalities and in trying to theorise the "information-self", youhave shamelessly ignored the "information-other"? Does it not say that all your understanding of information are bias pro-power because you have wiped out the decimals as insignificant and pretended that they do not exist? Such decimals might be infinitesimally small, but such approximation is not.

Of course, this also doesn't mean that the whole of chaos theory needs to be accepted the way it is and not challenge it further. This theory can also be flawed in infinite ways, and in trying to read those flaws, the point would be to observe the minor flaws as well, and not look at the average aproximate flaws of the theory, in order to save our argument from itself!

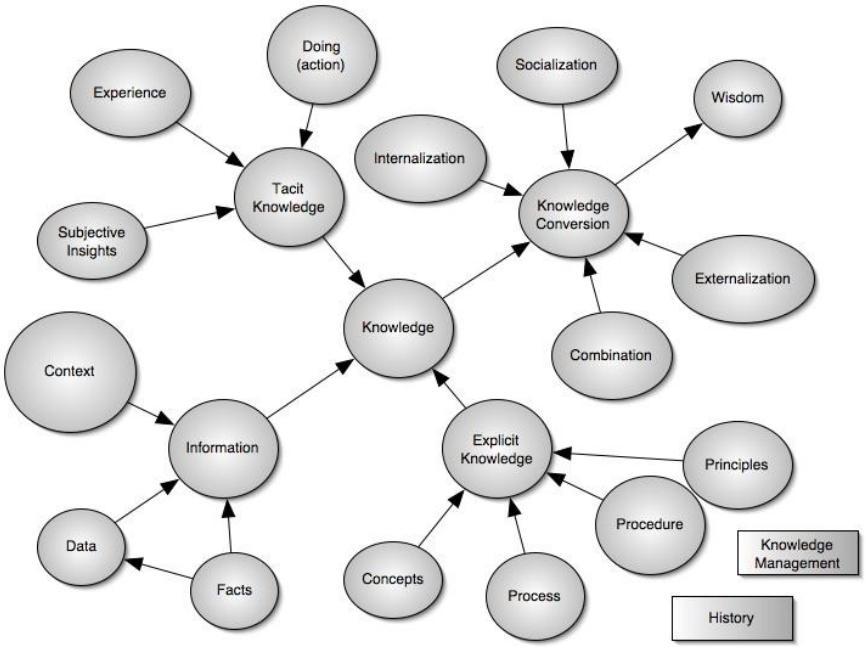
Despite huge escalation of scientific innovation during the war years, no government in the world, excepting the one in the U.S.S.R., bestowed attention upon organising Information, especially those of scientific accomplishments. Actually, the need for systematic organisation of Information was felt by the then regimes much later. The global imperialist

circle, almost half a decade after the conclusion of the Second World War, came to discover about the virtue of Information Organisation. It was the Space Race between the U.S. and the U.S.S.R. during the Cold War period that first brought to the fore the significance of Information. Here again, we face two questions: First, was management of information indeed historically overlooked? Or was it overlooked as a potential "system" which could bear direct impact upon policies of power? Second, even when information management did begin gaining some kind of historical significance and importance, why was it taken as an extension of the scientific domain? Was it merely because the first professional management of information systems occurred in an apparently scientific domain or was it some kind of a social imperative to consider processed data scientific? The result of the Space Race made this quite clear to all enterprising countries and organisations that Information is a key resource behind the advancement of a nation in all possible spheres. But despite getting such intellectual weightage, Information was hardly treated as something that could be commodified—exchanged for money. Its mercantile merit was totally ignored until Fritz Machlup published his important work '*The Production and Distribution of Knowledge in the United States*' in 1962. Nevertheless, he did not take into account the various intricacies of labour.

Fritz Machlup (December 15, 1902—January 30, 1983) was an American economist, who amidst many of his other feats, was one of the pioneers who had visualised and examined "knowledge" as an economic resource. While it is in vogue to discuss about the "knowledge-economy" as some kind of a pre-given on data management systems, it would be interesting to understand the philosophical and epistemological premise from which Machlup's work emerges. Of course, it is neither novel nor innovative to state that knowledge is very important in the fields of human sustenance, or Biology, or Aerodynamics, or even

Theology, but his work is seminal because it tries to understand knowledge economy in relation (both qualitative and quantitative) with the advent of new-age technologies. General economic tendencies try to understand knowledge in terms of its dissemination and distribution, during which one hardly focusses on the levels of its processes of production. For theorists of philosophy, one of course knows that there has been no dearth of interest in the fields of knowledge, cognition, and the like. Machlup, however, takes quite an innovative turn. He analyses the knowledge economy in the light of many seemingly disparate academic disciplines (as pointed earlier in the chapter) like philosophy, mathematics, accounting and information economics. Such a comparative approach helps us to understand that information is an interdisciplinary concept. Furthermore, it also provides us, (strugglers of literature, trying to grab a hand at economics, philosophy, mathematics, computing and what not and eventually being doubted and questioned by the departmental research committee on the intentions, possibilities and scopes of the research within the domains of literature) a faint ray of hope, that only such comparative approaches towards these disciplines can provide us with a proper understanding of the nuances of the information system and the knowledge economy. Machlup tells us that information needs more care than organizing, labelling and distributing. It is an economic system in itself that provides its assertions based on the dominant phases in history. As a student of (primarily) literature, it becomes imperative upon us to see information economy as that history which at best manifests itself in literary forms (Machlup 1962). Thanks to Machlup, we can dare to look at literary manifestations as historical products of the information economy and not information economy as something that happened only in scientific domains such as the Space Race and literature as something that happened out of a cultural "mal du siècle".

While Machlup scrutinizes knowledge as something that always rests its biases on history, he also breaks it into four prominent sectors of practice: education, research and development, communication and information. In these he lays maximum importance to information, and believes that while information (in this case, knowledge?) is associated with the productivity and economic growth of a nation; hence information economy is directly related to national accounts, he simultaneously also believes that information (knowledge?) has some kind of a social benefit, which is non-monetary in nature and can exceed private benefits in certain non-monetary parameters.



Fritz Machlup—Knowledge Industry Typology

[Fig. 4: This picture has been duly taken from the internet under the Creative Commons' Attribution-Non Commercial 2.0 Generic license.]

Lately however, the idea of "Infonomics" has surfaced, which is but an extended yet trimmed and timely version of Machlup's work in information and computing environment.

The term “Infonomics” is a portmanteau, an amalgamation of two separate expressions—Information and Economics, coined by Douglas Laney, a business analyst of the META Group, in the early 1990s. Infonomics is the study that asserts economic value to Information, treating the latter as an economic asset as well as a sellable commodity. Although the idea of Infonomics is credited to the business environment concerning the arena of information technology, we will not limit ourselves to it, for that would be a very partial reading of Information’s economic and social magnitude.

Laney, in his essay ‘Infonomics: The Economics of Information and Principles of Information Asset Management’ argues that the status of information is dicey in terms of understanding it as a commodity, more so as a sellable commodity because of many reasons. If information is a sellable commodity then what are the methods that quantify its equity? Does it understandably have the same kinds of asset to liability relations in spite of its amorphous nature? How would a consumer “consume” information? Yet, we know that information too has exchange value, it can have a major economic benefit upon an individual/organization or can even cause threat due to (lack of) possession of the same. One of the primary problems of treating information as a commodity in the more traditional sense of the term, according to the analysis of this thesis, is the fact that it is difficult to maintain a distinction between an information producer, an information keeper and an information distributor. As an extension of that then, first, there is no guarantee that the information that one possesses as secret/sacrosanct knowledge will remain secret/sacrosanct and keep benefitting the keeper in similar ways over a certain period of time and second, due to the non-sustainable nature of information, it cannot be guaranteed that the privilege of possession of secret/sacrosanct information in time $t_1$will remain equally relevant in magnitude and exchange value in time t_2 even if the secrecy/sacrosanctity is maintained. A more vital

problem is the fact that the anatomy of any society must be sought into the economic model it champions. So, different facets of Information must be studied from the economic angle of labour to also discover its social implications. This will serve two benefits: one, it will help us understand what kinds of labour result in the production and percolation of what kinds of information; two, it will help us re-question the very basics of intellectual labour, of which information-labour will play a major role in the revised understanding of the Information Capital.

Before proceeding any further let us first discuss about commodity economy, its nature and attributes. This is a prerequisite as the economy of Information, like other economies of the age, is also linked to the present phase of capitalist production. Or for that matter, any economy of any age, needs to be understood only by understanding the modes of its production, the kinds of labour involved in such production and the ways and means in which such information is capitalized to suit the needs of profit-makers and other interested groups.

Karl Marx, branded commodity economy as the foundation of the capitalist order. He enunciated in *Capital*, his magnum opus, that "the wealth of those societies in which the capitalist mode of production prevails, presents itself as an immense accumulation of commodities." (Marx, 1987) Now, naturally, the question that arises is—what is commodity?

Out of the many definitions of commodity, a certain one by the Soviet economist Leontiev, reads; "All products of labour, manufactured for sale, and not for one's own use, are called commodities." (Leontiev, 1971) However, this should be borne in mind that not only the product of labour, but the labour power itself assumes the form of commodity in a

capitalist society—which leads to the alienation of the worker from his human self. That means that commodities are products of human labour (and also the human labour power itself) that bear no use value for the producer herself but for the consumer, and are exchanged for a specific value of cash or kind which could be termed as value of exchange or exchange value (Berdi͡aev 1971). A commodity, therefore, should have two values—(1) the use value and (2) the exchange value. Use value, if put in simple terms, is something that satisfies human need, both individual and collective. It is the sole attribute for an article to be treated as wealth. In case of exchange value, however, Marx's conclusions are radically different. Exchange value, precisely, is the quantitative aspect of value, as opposed to use value, which lays stress on the qualitative aspect. Although exchange value is manifested in price, as the latter expresses the value of any commodity in terms of money, it differs from the use value in two ways—first, it is the actualisation of exchange value, "differing from one exchange to the next in response to a myriad of factors affecting the activity of exchange; second, price is the specific value-form, measuring the value of the commodity against money." (Encyclopaedia of Marxism)

Now, one may ask: how to ascribe value (exchange value) to something? Marx suggests that value of a commodity is the amount of labour embodied in it, and the labour that creates it may be identified as toil or abstract labour. This type of labour creates exchange value of articles on which the commodity economy of capitalism is based upon. Another kind of labour, the concrete labour, is a particular kind of labour employed for creating a particular article of need or its use value. The use value of any substance has value solely as abstract human labour is maintained in it. Marx states in *Capital* that "if we leave out of consideration the use value of commodities, they have only one common property left, that of being the product of human labour." (Marx, 1987) But how are we to measure this

value? It is only possible by calculating the socially necessary labour time. Moreover, according to Marx, abstract labour creates value. It is only if we understand the creation of value, in this sense, the process of creation of abstract labour, which in turn would ascribe values to an identifiable commodity, shall we be able to understand the process of treatment of surplus value independently, without its excesses, to read the structural characters of profit margins, interest rates and so on; upon which the world of speculative finance capital depends.

Anybody acquainted with the political economy of Marx is sure to have an idea about the above concepts and their aspects. Hence, we are not going into their further elaboration here. This brief outline, however, was necessary, as now we would show how information assumes the shape of commodity in a capitalist society. Of course, the reason why we are emphasising on the capitalist mode is not arbitrary. It is because in pre-capitalist times there existed in the main, the natural economy—an economic structure where the idea of the market as an organised system was virtually nonexistent.

Let us now find out what exactly is meant by Information? From a broader perspective, Information can be defined as a structured or an organised body of data, capable of changing the image structure of the recipient. Now the point is, who organises or structures the scattered data, how and why? It has been empirically substantiated that human beings, by employing their mental labour, create information, and its use value is realised when this Information transforms the image structure of any individual or that of a society as a whole. Every article has a specific degree of information in it, just as it has labour power that creates its exchange value. **Concrete labour, in actual sense, is nothing but a product of Information**. When information is conveyed or is intended to be conveyed to a receiver in

exchange of cash, it assumes the form of commodity. In such a case, the semantic side of that very Information becomes use value and the latter's processing creates exchange value. Thus, when it enters the commodity market, Infonomics becomes its logic.

In certain firms Information is generated on in-house basis and is utilised for the growth of that specific organisation. In that case Information functions as an ancillary tool or a resource for the economic flourishing of the concerned company, but not (merely) as a commodity. But, as a commodity, Information cannot exist independently. It always needs a carrier, a medium. When Information finally becomes a commodity, in most of the cases, its exchange value gets merged with the exchange value of the carrier. That is why, same information packaged in different carriers can and do contain diverse price tags. Such information can be sold inside gift-wraps of knowledge, empowerment, security or a combination of them all.

Martin C. Libicki (1952 -), senior management scientist and Professor at the Pardee RAND Graduate School, way back in May 1995, had opined that information (organized) can take the shape of the next warfare. It is not that before the advent of organized information, human beings did not enter wars and confront zones with each other. However, as Libicki puts it, organized information creates an easier premise of a unified field or an opportunistic assemblage of both attack and defence which can potentially manifest itself into the following warzones:

- Command and Control Warfare [C2W]
- Intelligence-based Warfare [IBW]
- Electronic Warfare [EW]

- Psychological Operations [PSYOPS]
- Hackerwar (Software-based Attacks on Information Systems)
- Information Economic Warfare [IEW]—War via the Control of Information Trade
- Cyberwar (Real-time Combat in the Virtual Realm)

What is an interesting observation is that if such warfares were indeed a capitalist trade, then these are never zero-sum enterprises. Those in possession of organized information almost always stand at a greater potential of economic gain than the others. Hence, it puts a serious question mark upon phrases like 'war (only) for ideology', etc. The initiator of a war stands prepared with organized information. The status of the war therefore depends on how efficiently the attacked or the defender can strategize her set of information and stand at par with the attacker who is already in possession of the same (this analysis obviously excludes ill-planned or random battles of sorts).

Commodification of Information is not a nascent idea, though. It dates back to the slave-holding epoch when Aristotle was placed at the pinnacle of occidental scholarship. One day, while he was passing through a primitive mart, Aristotle found that a few baskets of grain were being exchanged with a piece of writing of his, scribbled on a leaf of papyrus. This left the revered scholar absolutely awestruck. In spite of enormous brainstorming efforts he could not unearth the common factor that equated his cerebral findings with the product of a slave's labour. This was in fact natural as Aristotle hailed from a society that thrived on slavery, where human labour was scarcely considered equal and same. But anybody who has studied the Marxist treatise or has knowledge upon the economics of commodities, knows that it is the abstract labour that was common between the slave's labour and the mental toil of Aristotle.

Manifestations of Information Imperialism: Case Studies

The tremendous economic and political potential of Information is a known fact today. It is one of those assets that could make one reach the apex of power. Thus, to have supreme command over global policymaking and execution, monopolisation of information resources is almost obligatory. Since the passing of the age of industrialisation to that of Information economy, and the debacle of the Soviet led Eastern Front and Warsaw Pact, world capitalism, under the aegis of U.S. imperialism, has increased its hegemonic pursuits manifold. It has stretched its claws on every available data and Information resource, establishing control over all major news and Information agencies. Concocted (my adjective) Information has become the order of the day, owing to its potency to satisfy the concentration of human wealth in fewer and fewer hands. It is by promoting concocted or different or diverse Information, imperialism tries to introduce confusion among people, which, quite naturally, is enabling it to get its vile interests materialised. Installation of puppet regimes in Iraq and Libya by ousting their legitimate governments is a glaring instance of this plot. The claims that the U.S., under the pretext of safeguarding national security, is regularly financing pro-U.S. covert forces in anti-imperialist countries—as it wants to rid itself of the severe **economic crises** it is facing in its homeland, is as much an "innocent piece" of information, as much as its tall claims on world peace. The only way to achieve the trust of any mass is by instigating sporadic, local armed clashes in any land by supplying concocted Information. Those nations whose virgin markets are yet to be brutally penetrated are naturally then, are the chief targets of such Information Imperialists. Till the U.S.S.R. existed, the U.S. played the trump card of Russian Threat to justify its misanthropic acts of terror. It produced scores

of anti-Soviet films (as information; for instance) that propagated outright fictitious Information about the U.S.S.R. and socialism. Whether the situation has hardly changed even after the former's disintegration is yet another question that needs to be answered upon the premise of sets of information conglomerates. Prof. Noam Chomsky (1928 –), the eminent linguist and anti-imperialist activist who often dresses down the U.S. authorities, observes:

> "There is a 'received standard version', common to academic scholarship, government pronouncements, and public discourse. It holds that the prime commitment of governments is to ensure security, and that the primary concern of the U.S. and its allies since 1945 was the Russian threat.
>
> "There are a number of ways to evaluate the doctrine. One obvious question to ask is: What happened when the Russian threat disappeared in 1989? Answer: everything continued much as before.
>
> "The U.S. immediately invaded Panama, killing probably thousands of people and installing a client regime. This was routine practice in U.S.-dominated domains—but in this case not quite as routine. For first time, a major foreign policy act was not justified by an alleged Russian threat.
>
> "Instead, a series of fraudulent pretexts for the invasion were concocted that collapse instantly on examination. **The media chimed in enthusiastically, lauding the magnificent achievement of defeating Panama, unconcerned that the pretexts were ludicrous, that the act itself was a radical violation of international law, and that it was bitterly condemned elsewhere, most harshly in Latin America**. (Stress added by the present author) Also ignored was the U.S. veto of a unanimous Security Council resolution condemning crimes by U.S. troops during the invasion, with Britain alone abstaining.

"All routine. And all forgotten (which is also routine)."

(Chomsky, 2014)

Let us look into another example about the role of the U.S. media—the de facto commentator (and preacher?) on world peace and democracy. Despite tall claims of the U.S. government and its satellites, it has been proven on a number of occasions by alternate sets of information that they are actually covert lieutenants of the state's capitalist militia. Another thread of information, than the ones propagated by the mainstream U.S. media claims that the recent hullabaloo over Ebola virus's alleged attack on America is nothing short of a sham. A fresh case study on Ebola shows that U.S. media's propaganda over America being Ebola affected is nothing but a piece of fiction. (Somu, 2014) The media has cultivated this to de-channelize the U.S. citizens' rage against their government's austerity policy since the last recession—responsible for curbing the expenditure over people's welfare schemes. (Somu, 2014)

Was the media insensitive or nasty that they have propagated the story of Ebola epidemic in America to encash on the white community's xenophobic psyche—as the epidemic has its origin among the 'coloured' people of Negroid nationality? (Somu, 2014) A 'coloured' Negro has been identified as "Ebola carrier", though the few whites suffering from the same disease have been recognised as "Ebola Affected." (Somu, 2014) The author, obviously does not have clear answers to the problems, nor is she on the lookout for the same. The point that this chapter tries to raise and investigate is how Information can be procured, modified, altered and presented differently before different sets of masses to yield contrasting results even though they supposedly begin from similar presumptions. Then there are other sets of Information which do not even begin from similar premises and often gets

connected to the earlier set in disjointed manners. The resultant impact that Information can have on people and on cultures is different, dangerous and often scary. The owners in possession of such Information thus have the power to create and continue the fear factor among the ill-informed and the un-informed.

At present, U.S. imperialism's seemingly sole aim is to foster a uni-polar world which will be under its absolute authority. For achieving this object, it has appointed a number of multinational corporations, dealing with Information and Information Retrieval. Therefore, when Peoples Republic of China (P.R.C.), despite Google's threat to pull out of the Chinese market for alleged hacking (without any proof though) and censorship, denied to compromise on its internet regulations, Mrs. Hillary Clinton, the U.S. Secretary of State and wife of former U.S. President Bill Clinton, lashed out at the Chinese administration, alleging that it has erected a New Berlin Wall against free flow of Information. Not only that, naming countries like Vietnam, Tunisia, Uzbekistan etc., she threatened that they would face the consequences of what they have done (that is imposing censorship on pro-Americanised Information) and international condemnation. The White House, too, endorsed the statement of its Secretary of State and condemned the P.R.C., but without any factual evidence. The P.R.C. in reply charged the U.S. of practising Information Imperialism and criticised its policy of planting agents to destabilise the Chinese system. The Chinese commentator stated: "No country will allow information about subversion, separation, racialism and terrorism to circulate in it through the Internet. Sovereignty and borders also exist in cyberspace, which will need to be watched by each country's laws and regulations (qtd. in Somu 2014)." He observed that the Google's entry in the Chinese market was "not for commercial reasons but to act as a tool to penetrate into the Chinese culture as well as into Chinese people's values." He also exposed the reason behind this proactive initiative of Google. He said, "Google's

relations with the US government cannot be deeper. US media has said Google was the fourth-largest supporter of Barack Obama in his election campaign. Four of the company's former executives including Sumit Agarwal, who was the product manager for Google Mobile team and is currently deputy assistant secretary of defence, are now serving the US government." Basing himself on such arguments, the commentator finally threw the question—"How can people believe that the company's search results are without any bias when it lacks independence as well as business ethics?" (Jiawei, 2010)

Apart from such incidents, the U.S.A.'s imperialistic gluttony over appropriating every possible natural resource has gone to such an extent that, by exploiting the tools of Intellectual Property Rights (IPR), it has started grabbing indigenous properties of every third world country. In 1995 the European Patent Office (EPO) granted a patent on an anti-fungal product prepared from *Azadirachta indicia* or Neem to the U.S. Department of Agriculture and W.R. Grace & Com. (*Azadirachtaindica*) This step, however, met with a huge resistance from India and the patent, hence, was revoked.

How abuse of Product Patenting Laws is crippling the health sector of the third world, is evident from the activities of different Multinational Corporations (MNCs). A number of MNCs that own patent over several life-saving drugs make their prices so high that they become inaccessible to common masses. The state of affairs has become such that a common Indian cursed with cancer cannot even afford to buy any low price medicine, for low priced anti-carcinoma drugs such as Sunitinib and Dasatinib have been taken off the shelves of retail stores owing to patent laws—thus providing free access to drug manufacturing MNCs like Novartis and GlaxoSmithKline, whose products are exorbitantly priced. (Mukherjee, 2014) Earlier, a common Indian could have received cancer treatment for one month at Rs. 9,000

approximately. But due to filing of infringement suits against Hyderabad-based NatcoPharma in 2011 by BMS, which got a patent for Dasatinib in the end of 2006, the same treatment has gone up to 1.66 lakh (Mukherjee, 2014). In certain cases these MNCs even delay the launch of life-saving drugs in the third world countries. According to a report in *Times of India* of November 30, 2014, "Corporates such as Japanese firm Otsuka Pharmaceuticals, US-based Bristol Myers-Squibb (BMS) and Swiss firm Novartis are deferring the launch of medicines critical for treatment of serious non-communicable diseases like cancer, HIV, hepatitis C and TB"(Mukherjee, 2014). It further adds that "Otsuka, which has a patent for delamanid since December 2011, has not imported even a single pack into India yet. The drug, used to treat multi-drug-resistant (MDR) TB, has not been imported in enough quantities even for the mandated local trials. This, even as WHO estimates that India is home to the most number of MDR-TB patients in the world." (Mukherjee, 2014)

This chapter, therefore sets the premise on what Information is, and how dangerously they can be used and utilised by several interested groups to spread Imperialism, unrest and more, by appropriating an otherwise "scientific" domain of knowledge production—Information. For the rest of the thesis, we will understand Information-self as that kind of information which the producer wants to keep as her own, and Information-other as the ones which she wishes to percolate to the mass. The analysis, in later chapters will see how there can exist differences between the Information-self and the Information-other and how such differences can yield extremely diverse, dangerous and often hazardous social consequences by looking at the potential of information creation, modification and distribution. We shall also see, if at all, there are ways to open and make free such Information from the grips of the Information Imperialists.

Chapter 4

The Philosophical and Legal Dilemmas over Intellectual Property in the Digital Age

The Philosophical and Legal Dilemmas over Intellectual Property in the Digital Age

After having read about how information tends to get imperialized, it is important to know the ways and means of preventing and resisting the same from the hands of any such onslaught as may progress to capture information under its proprietary folds. From the very childhood a toddler is taught not to "steal" food or pencils from other kids; thereby establishing stealing as a crime, but more importantly, teaching and defining the parameters and margins of the act of stealing itself. So much seems to be a training in basic human values; unless the valuation of such values tends to benefit large proprietors in their own business models. Let us take an example from the non-digital domain to illustrate the problem. Say, drinking water is free in a country and every citizen enjoys it as a basic right. Suddenly, some large business conglomerate decides to create an artificial scarcity of drinking water in a land. Later that very business conglomerate advices people to consume drinking water sold by their company and also suggests to accept the newly packaged drinking water as some kind of a "privilege" that is being conferred upon the mass only by virtue of the "kindness" shown by the business houses. After a system of habitual naturalization of this process, it will be likely for people to start accepting the marketing gesture as kindness of a pure form and they may eventually consider not buying water as an act of disloyalty; even theft. What happens in due process is a paradigm shift of understanding a basic "right" as a kind of "privilege"; of converting a demand to a request; of subduing a protest of "not-getting" to a gratitude of "charity". Dehumanization of rights begins at this very point when a human being mistakes her ethical claims as her polite requests.

Imperializing information happens in exactly similar manners. What was originally supposed to be a right anyway gets commercialized and monopolized in such ways that

information becomes a non-tangible, yet sellable commodity and thereafter serves the benefits of the proprietors in exactly those ways as in which other commodities are produced, sold and distributed. The reason for which commercialization, packaging and selling of information by large multinationals does not seem so prominently inevitable is because it generally seems unlikely the a multinational should have to do anything with what movies I watch, what art I appreciate, what books I read, etc. However, increased aggression over monitoring general usage of digital content, protests, dissents etc. seems to speak volumes about business profits that may generate from innovative ideas, original concepts, etc. That then becomes the premise of implementing Intellectual Property Rights (IPR), as we have seen in the earlier chapters.

Many digital activists have rightfully felt the need to raise awareness amongst the mass about such profit-making ventures and possibilities and have also tried to provide alternatives to such crises. The new legal frameworks that have been designed to fight such imperialistic flaws also substantiate its base from the earlier patents and trademarks like the copyright. In order to do so, the new legalities have to define the parameters of rights and criminality in the new found contexts.

This chapter would primarily try to examine contemporary developments across the spectrum of new digital economics, politics and digital laws that contribute to the economies of creativity and simultaneous production of intellectual property laws and rights. This kind of digitally networked economy is closely linked to the philosophical crests and troughs of the operating software industry that takes an onus to facilitate quite a bit of the changes taking place (and would focus on the political-economic importance of such changes) towards a general (non) commodity-based production of software to an information economy.

The author's desperate attempts to draw a trajectory of a critical and historiographic foundation for the political economy of Free/Libre Open Source Software (hereafter F/LOSS) derives partially from the necessity to understand the main sections of F/LOSS culture as well as to gather an objective understanding of the trends that make F/LOSS so powerful as a digital movement. One of the major philosophies of information production in such systems is the new-formed oxymoronic understanding of "concentration without absolute centralization". The new society with its predicaments of information production usually refers to a magnetic and paradigm shift in the history of the development of Western economies from the production of raw goods to the production of innovations, ideas and/or building a market revolving around concept selling. The shifts from mass industrial societies that were epitomised by huge factories monitoring scales of mass-production of predictable mass commodities, to quite steadily that of an economy based on information and technology, made strikingly visible by the shifts in the patterns of new commodity consumption, triggered changes in workplace ethics as well as a higher and more determined focus of profit related growth from mass markets to a different strata of society that are generally high-earning, have more disposable cash to themselves and are not necessarily looking at same concepts revolving over and over again.

Historically, the shift is often assumed to have triggered in the 1960s and 1970s in response to various mostly economic factors such as trade union activities, the high staked maintenances of the welfare state economies, recurrent strikes occurring in several distinct and disjointed parts of Europe and perhaps also the sudden crude oil upsets that triggered the needs for new businesses, new concepts, new ideations and new notions of competitiveness in the West. Within more conservative and traditional information society theories, the USA, Europe (selected) and Japan are generally identified as the pioneers of the rising new

information age that have made prominent attempts in making their presences felt as part of the digital economic networks.

Peter Drucker (1968), Daniel Bell (1973) and Zbgniew Brzezinski (1973) were one of the first theorists of a new wave of economic development, which are often referred to as the post industrial society, "technetronic era[10]" or more commonly a knowledge/information society. In 'The Information Society and the Triumph of Capital', the current celebrations of capital's global victory accelerates a vital two-fold debate. On one hand, it talks of the steady rise of the knowledge/information society, one in which technology could be and would be used to solve the problems and crises of Capitalism itself by attempting to stabilize the economy with the help of technology, and on the other it suggests a steady fall of Marxism in the face of high technology. The "labour theory", "base-superstructure" models were beginning to give way to the newly defined USA, Europe and Japan in the face of production of those kinds of labour which were produced as a result of machine-generated data. Alain Touraine (1971) discussed and identified a new form of social movement and associated new logical sets of politics with what he termed as "a programmed society". Another particularly important theorist, Manuel Castells had vividly explored the rise of technology, digital networks and information society; has argued that we can see the emergence of an information society that is built around the growing importance of knowledge and

[10]**"The technotronic era involves the gradual appearance of a more controlled society. Such a society would be dominated by an elite, unrestrained by traditional values. Soon it will be possible to assert almost continuous surveillance over every citizen and maintain up-to-date complete files containing even the most personal information about the citizen. These files will be subject to instantaneous retrieval by the authorities. " – Brzezinski.**

information to the generation of profit. This is an important background to the changing nature of production and the importance of Intellectual Property Rights (IPRs). Castells believes that the Information Society will continue to remain a capitalist society at its core not only because of certain predecessor social movements that saw major downfalls of socialism, but more importantly because capitalism itself was changing from its earlier classical forms. In the newer times, information started to be taken as a new form of economic resource. Tangible raw materials as ingredients towards materials production now gave way to intangible information as the new raw material resource.

Along with the expansion of technology-based commodity production, especially into the realm of direct personal consumptions, the symbiotic connection of content with technology has resulted in a twofold threat within certain predictable sections of the corporate world – One, dangers of uncontrolled, unregimented and unprofitable digital copyright infringement and the resultant collapse in material profit thereof and Two, the sudden realization that technologically enabled delivery of cultural products could actually result in massive monetary profits, provided that sufficient legal redressal systems are available. Technology and natural science offer a strong "unquestionable" discourse of predictability and empirically tested decisions that are apparently objective and value-free, but this notion itself is value-laden, a point that is often forgotten by puritan practitioners of basic science.

What was earlier known as the antagonism between capital and labour, was now being reflected in the dichotomy between the public and the private; because (as stated earlier) capital itself was basing its premise on newer resources and much of labour was being converted as intellectual labour which started making an impact in technology formation, production and communication. Questions on intellectual property, freedom, etc. get aggravated with increased tensions between a profit-making private versus a common

public good; especially when they are at a clash with each other. The debates are often based on un-ignorable logic such as: the future of innovations would have to completely dependent in paying earlier patented information products, and the price that needs to be paid would indeed be very high, for no initiations can be made without paying a fortune to the giant profit-makers that hold the corpus of the patent along with the financial gain that it incurs. What was earlier thought of as "universal labour" was now becoming the talk of the day with the newer big corporations that used intangible resources as its raw ingredients.

The priority started shifting from **production and profit** to **control and profit**. Information has always been supremely important to the logic of the operation of capitalism, of course, but the relative weightage of the ownership of information is gradually increasing as the potential for monopolization of its control, of its creation, of its dissemination and use has been strengthened by manifold times. The source of control and codification of knowledge has become interestingly subject to the attention of capitalists as '[a]ccordingly, while the weight of current economic output is probably only modestly higher than it was a half-century ago, value added [i.e. knowledge and non-material additions], adjusted for price change, has risen well over threefold' (qtd. in Perelman 2003). In the recent times, it is being argued that creativity, originality and innovation has become the key source of "Value" (with a capital V) in the age of late capitalism, which draws on that same source of Value as can be extracted from living labour and real creative resources.

This tries to explain that, the productive labour (not necessarily leading to produce) to form immaterial objects or even deliverables through intellectual, participatory and affective endeavour is a fast growing and newly and extremely important source of the new Value in a capitalist milieu. Simultaneously, there has been a constant and parallel attempt to legitimize the ownership and control of knowledge and information. Heilbronner comments that 'much

of what is called “growth” in capitalist societies consists in this commodification of life. The continuous search of business for areas of social activity that can be subsumed within the capital-generating circuit’ (Heilbronner 2000). But, the deployment of laws and norms that legitimize informational ownership requires conscious social and political action resulting in institutional change (Dyer-Witheford 1999). This leaves traces that can be critically examined and opens the possibility of political contestation and debate (Barber 1984; Feenberg & Hannay 1995). The expansive conversion of capital into information and/or other modes of knowledge production and participatory communication raises pertinent questions about the limit and extent to which capitalism intrudes in our social and personal life in different ways and degrees than in the earlier modes of more conservative production. This is where conceptually ‘social factory’ gives a completely coherent and useful analytical means of discussing the way in which certain common, public and/or shared parts of our social existences are currently being attacked, targeted, hegemonized and groomed for profit. It is all the more interesting in relation to the emergence of unpaid, voluntary and free labour, found in the forms of digital workers who through their continuous collective and collaborative use of online sites, repositories or resources contribute towards a final intangible, but affective product, the primary examples of which being Wikipedia, the free online encyclopaedia, which are populated by anonymous netizens discussing and writing about topics of their interests, without demanding or expecting any financial gain or profit out of it.

By wanting to expand and alter or modify property rights to intellectual artefacts and objects (intangible products) and establishing social relationships as revenue-generating business processes, business models, methods and the like) the new avenues and concerns are strengthening and extending the concept of informational proprietorship or intangible business processes.

The beginning of intensification of proprietary ownership of the social, cultural and intellectual sphere is justified with reference to a number of socially acceptable schema, such as self expression and consent, human rights or economic necessity. Historically however, intellectual property rights (IPR) such as copyright, trademarks, patents, etc. have always been socially taught to be seen as a perfect balance between the public good and individual (artististic) justice, both in civil and common law traditions, in most of the countrties across the world, particularly in the first world ones. In any democratic capitalist society, the tension between free access to information, and an economic right to exploit informational know-how or cultural products has been a shifting and contested area of ownership and control (Jefferson 1999; Habermas 1992; Dyer-Witheford 1999). Having said that, the extent to which ownership and authority of the intangible has gained prominence in recent times is indeed unprecedented – from the authority and control of archived cultural texts (including images, film and music) to other fields of human life is intriguing beyond words. After talking so much about the theories of intangible labour and its effect on the ways of the new capital, let us now look specifically into the history of the software industry, where there has been a massive impact on how information is produced, structured and sold and how real money is made by initiating labour into producing the intangible. I shall also see, at this point, how the process of holding (back) information to one's advantage suddenly starts shifting to an act of withholding information to other people's disadvantage.

The advent of the software industry has to be slightly retraced from the beginning of laying an emphasis of technology. And unfortunately enough, the history of technology in any country is often marked with an understanding of the **military-industry complex**. One of the most important historical advances in the field of technology is the political ego battle

between the United States of America and the Soviet Union. Between 1953 and 1961, the 34th American President, Dwight D. Eisenhower, had constantly suggested and warned the world about the close proximities and connections with industrial and technological procurements and purchases with a country's war economy. Any country that was in a better position to procure and purchase technology was seemingly in a better position to rage war and win the same against its opponents. This can be exemplified with how, in 1958, immediately after being technologically threatened with the Soviet Union's launch of Sputnik I and II, the United States of America had to form its much discussed Advanced Research Projects Agency (ARPA). ARPA began with a budget of $2 billion and a staff of around 70 and was initially given direction over all US space programmes and advanced strategic missile research (Hafner and Lyon 1998: 21). Towards the end of that same year, the National Aeronautics and Space Administration (NASA) had been established and space research and missile projects were transferred to NASA from ARPA. This left ARPA with a $150 million budget and no clear future.

However, soon it had rethought and realigned its mission with newer kinds of basic research in the technological sciences that were directed towards special kinds of projects which would work directly with the universities and provide scholarships to meritorious and bright students to help further such technological research. Thus at one hand, the military was directly being able to influence research work across the top US universities, and at the other hand it was also propagating the message that meritorious students (should) work with technology. The projects developed by ARPA started becoming highly politically charged during (particularly) the 1960s, which saw so many parallel moments happening side by side, that it became impossible to call them "unrelated" or "natural". To begin with, there was a complete silent unease regarding the Vietnam war. At that same time, America saw a

(sudden?) emergence of quite a few countercultures like the civil rights movements and the Berkeley Free Speech Movement which made major impacts in the entire philosophy of software designs (the kinds of softwares that were being produced and why). Largely funded by the US military-industry nexus, hackers were turning towards their jobs in the guise of experiments; where soon hacking itself became some kind of a "cool" American counterculture experiment. Interestingly, some intoxicating drugs like LSD were also being marketed with a "cool factor" along the same time. The US government did not take time to understand that counterculture had a recoil of its own; that incorporated technology along the same "upping the ante" quotients like sex, drugs, hippy and punk cultures, etc. This breakthrough moment became critical **in** control technology and **for** control technology because of the invention and updation of sophisticated operating systems, introduction of small video games to the personal computer, first moments of understanding the logic of hyperlinks, etc. Of all these innovations, how the hyperlink superceded all logic of erstwhile technology to create a logic of its own, in the fields of art, writing and technology itself, perhaps marks one of those early moments where technology decided to join hands with newer forms of writing techniques (writing without a pen, cutting content and pasting them without physical cutters and adhesives) and vice versa. Paul Edwards, an important philosopher of the 60s decade, and a principal signer of the *Humanist Manifesto* (1962), made very poignant remarks about writing the history of computers. He identified 1969 as a key year and remarked that any history of computers written before this time would be based on **machine calculations** (meaning computer hardwares) and those written after 1969 would be based on machine logic (meaning computer softwares) and clearly defined the primary differences between hardwares and softwares. Why 1969 was chosen as a key date for conducting this research is also interesting as in June 1969, IBM had for the first time split their designed softwares from hardware systems and separated the two as independent market

produces following different schema of production, (market) penetration and sales. In 1967 the antitrust division of the US Department of Justice started an investigation into IBM and its 70 per cent control of the domestic computer market. IBM had stood accused of 'bundling', which was defined in court as 'the offering of a number of elements that are considered to be interrelated and necessary from a customer's point of view, in the computer field, under a single pricing plan, without detailing the pricing of the component elements themselves' (Campbell-Kelly 2004).

In different words, what IBM was actually doing was a major antitrust violation in the US: it was undercutting other suppliers way below a legitimate trade price. In 1969, Modicon would also release the first Programmable Logic Controller (PLC), an industrial digital "real time" computer in the US which would change industrial logic and control forever, through its processes of advanced industrial simulations. During the 1970s, there was a sudden and rapid change in the business processes, associated with culture and technologies of the newly structured and schematised software industry, together with a steep and significant rise in the magnitude and proportion of the software market. It is around a time like this, that the term "software engineer" came into widespread usage and all the computer science departments of the most renowned universities began to acknowledge and focus on the real and practical problems involved in the computation, implementation and operation of software projects from a technical point of view. This was a phase of a paradigm shift from a predominantly hardware-centric industry, one in which the hardware operational capability of a computer was understood as its primary, if not only, merit, and one where the software was supplied 'free' along with the hardware device as a primary functioning support to one where the requirements and needs of softwares changed drastically in order to fit a new type of software-buying computer owner. The 1970s also saw the early stages of the composition of the Unix operating system, that was written by Ken Thompson and Dennis Ritchie at the Bell

Labs. Unix was originally conceived of as a simple, reliable operating system for a single user as opposed to the 'software disaster' of MULTICS17 (Multiplexed Information and Computing Service), which conceptually was path-breaking but in practice slow to develop and iron out problems (Campbell-Kelly 2004). Thompson and Ritchie worked in a research ambience that was not entirely corporate. Because of the partly academic environment in which they were developing the UNIX, they could afford to make the source code open and freely available to their colleagues. By opening the source code, not only did they open a new (non) market possibility of software designs and development, but made a provision of making intellectual labour, a freely shareable category. The birth of UNIX became so important in the history of software development and studies, that it is often acknowledged and read as the most important milestone towards the birth of UNIX-like revolutionary operating systems like the FreeBSD (Berkeley Software Distribution), GNU/Linux, etc.

The 1970s were also the decade in which the ARPANET project began as part of DARPA's experimental network of networks. It was under this project that the crucial protocols of what was later to be called the Internet were designed and implemented as TCP/IP (Weber 2004). It was also here that Unix came under greater scrutiny as it was adopted as a common platform, in particular being open for others to view and change the source code, which allowed researchers in academic and business environments to experiment with improving the code. It also allowed the project to avoid the huge costs associated with using a proprietary platform, particularly DEC's VAX VMS, which could lock in users and programmers and could be difficult to transfer software from (Weber 2004). After the great crash of the software industry in 1970s, it took quite some time, in fact almost a decade, to regain the earlier status of the industry. In fact by the middle of 1980s, many

programmers started writing their own softwares to come out of the great crisis. Along this time, by 1971, Intel Corporation introduced and marketed the first integrated microprocessor.

This chip held all the necessary components for a computer processor to be contained on a single chip and in fact became capable of functioning as a stand-alone computer. In contrast to the large-scale industrial and corporate market focus of IBM's "bundled" software line, this processor was originally developed for the embedded computer systems market, controlling small yet specific applications and machinery. As a result of their considerable success in the industrial market, IBM, along with other giant players did not initially pay much importance to the possibility of the personal computer industry. Altair 8800, was the first microprocessor-based computer, which was manufactured by Micro Instrumentation Telemetry Systems (MITS). A very major event for the personal computer industry was the introduction of the Apple II computer in April 1977. The first Apple Computer had been formed by Steve Jobs and Steve Wozniak in 1976 and their first machine production, the Apple, had been a reference computer board for passionate computer engineers for ages. The Apple II, however, was a completely packaged, assembled and integrated computer system, with a proper keyboard, a monitor and the CPU all being a part of one single package. It greatly influenced and encouraged the launch of the Commodore PET, the Tandy TRS-80 and others.

In 1980, after all the issues with the US Antitrust Legislation, IBM had decided to enter the computer industry, but was suffering a big loss after submitting all the legal penalties. In order to speed through into profit, from the earlier incurred losses, it decided to outsource nearly all the different components and subsystems, of both the hardware and software categories. This later on, historically, became a decision with far reaching consequences for the software market as the personal computer designed by IBM had been

designed as an "open" platform to encourage non-IBM suppliers to create add-on hardware and software.

Microsoft, which was extremely smart in having signed only a non-exclusive contract to supply the MS-DOS operating system to IBM, was therefore able to sell their licenses for this software to any hardware manufacturer, independent of their separate supplies to IBM. The years 1979 to 1983 had seen the age of goldrush in the software industry. This age saw the bloom in the software industry to such an extent, that it in fact resulted in many ancillary industries or domains to relook at the scenario of the software industry in general. The most important moment in the history of Microsoft was of course, when it entered into a deal with IBM, to provide its entire software support to the IBM personal computers, by winning the tender over its extremely significant rival and competitor, Digital Research. By 1983, a year that became extremely important in the entire history of software studies for more reasons than one (more on that later), nearly a million IBM-compatible PCs had been sold and Microsoft had successfully managed in capturing 90 per cent of this tough and prosperous market, thereby giving themselves a sales of $70 million a year. The launch of the IBM PC had allowed for the creation of new and different types of software, the most notable of which was the spreadsheet, which had almost killed the market penetrability of the personal computer industry. So much so, such softwares were often referred to as “killer apps”. The ‘killer app’ hypothesis argues that a new and novel application that changes an activity in an innovative way, or allows something to be done that was previously impossible causes that new technology to be widely adopted (Campbell-Kelly 2004). Two more “killer apps” that definitely changed the ways in which the world looked at communications for the rest of their lives and also by revolutionizing and popularizing internet itself, were the electronic mails (e-mails) and the web browsers. The usage of web browsers was also the precursors for

generating e-commerce through the internet platforms. The emergence of WIMP (Windows, Icons, Mouse, Pointer) operating systems is often thought to have started with the 'revolutionary' arrival of the Apple Macintosh, in 1984, or perhaps the Windows 95, but actually it was based on a previous research project run by Xerox. Windows itself went through quite a number of very unsuccessful experiments before it could claim itself to have become a success and thereby be taken up convincingly by its users. Between 1983 and 1995, the computer software industry went through a period of rapid growth and considerable maturation that can be seen in the general interpretation made by software historians, particularly from their overrated focus on Microsoft – in fact there are more books about Microsoft than about the rest of the software industry combined in its entirety.

This maybe partly, due to the gathered fortune of the founders, specifically Bill Gates, but also due to the company's aggressions over profit-making that Microsoft steadily made from its sale of "bundled" computer softwares. Quite often, hence, Microsoft is seen as yet another giant monopolizing company which would keep controlling the entire computer software industry and keep having a huge share of revenue from it.So although by 1990 Microsoft was arguably the best known software firm, its sales of $1.18 billion represented only 3 per cent of the $35 billion worldwide market for computer software products, and this was still only one eighth of IBM's software sales of $9.95 billion (Campbell-Kelly 2004: 232). According to a market research company, OneStat.com, Microsoft Windows had a significant rising curve of 97.4 per cent of the global desktop operating system (DOS) market, compared to just 1.4 per cent for the Apple Macintosh and 0.3 per cent for GNU/Linux.

Between 1970 and 1980, there was a steep rise in the demand for simple video games installed as part of the basic operating systems. Pong (a very basic tennis game), Snake Xenxia (a game which would later become the philosophical premise of my last chapter) were one those first games that came as part of the Operating Systems package. By 1986, the video game console market gained prominence, with Between 1970 to 1980, there was a steep rise in the demand for simple video games installed as part of the basic operating systems. Pong (a very basic tennis game), Snake Xenxia (a game which would later become the philosophical premise of my last chapter) were one those first games that came as part of the Operating Systems package. Between 1970 and 1980, there was a steep rise in the demand for simple video games installed as part of the basic operating systems. Pong (a very basic tennis game), Snake Xenxia (a game which would later become the philosophical premise of my last chapter) were one those first games that came as part of the Operating Systems package. Between 1970 and 1980, there was a steep rise in the demand for simple video games installed as part of the basic operating systems. Pong (a very basic tennis game), Snake Xenxia (a game which would later become the philosophical premise of my last chapter) were one those first games that came as part of the Operating Systems package. Between 1970 to 1980, there was a steep rise in the demand for simple video games installed as part of the basic operating systems. Pong (a very basic tennis game), Snake Xenxia (a game which would later become the philosophical premise of my last chapter) were one those first games that came as part of the Operating Systems package.

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By 1986, the video game console market started gaining prominence, with Nintendo, Xbox and other integrated hardware consoles capturing the market. One major change that had happened in the way in which internet and the mobile platforms have changed is the way in which they have been viewed by the wide audience. Not only were they seen as platforms that could commercialize products, but they also became platforms that could and would get commercialized themselves. The history of the computer industry itself can be seen as a history of dynamic power control, in which power gradually started shifting from hardwares to softwares; from **what** you need to control with, to **how** you need to control. This is in acceptance of the fact that the hardwares became more self-sufficient and it no longer got to be seen as a category "bundled" with softwares. "Unbundling" became common and natural by all means. Key technologies under Web 2.0, have also started to be built on the Free/Libre and Open Source Software (FLOSS) ideologies about which I will talk at lengtgh in the next section of this chapter. Copyleft marks a beginning of such ideological licenses followed by the Creative Commons licenses, amongst others. How such licenses have shaped new technologies and how new technologies have in turn shaped new licenses is something that needs to be understood in connection with the applications of intellectual property in the digital age.

A Brief History of Intellectual Property Rights in the Digital Age

The 1709 British Statute of Anne marked the beginning of the modern concept of copyright that accorded exclusive rights to authors and their publishers (Litman 2001). The

duration of the license, by law, was designed to be of 28 years. It would first be applicable for 14 years and then could be extended by up to another 14 years. After such period of time, any work would automatically go to the public domain, from where readers would be able to easily draw resources, distribute or public contents of their choice and have easy, free and full access on any such redistributed material thereof. The only restriction that remained, however, is that such old work could not be re-copyrighted till transforming the rights officially and legally to other hands. When considered as part of the grand narrative of the history of intellectual property, the birth, advent and spread of the printing press in general and print capitalism in particular, has arguably facilitated significant advances in transferring knowledge, information systems and other kinds of non-physical property which felt the need for being copyrighted in the later times, in order to prevent its widespread unauthorised circulation. Gutenberg's development of movable type caused a revolution in the process of book production (McLuhan 1967).

Before this point, books were handwritten and copies were also reproduced by hand, which also meant that the only investment of labour needed for such production was concrete physical labour. With the advent of the printing press, publishers started getting worried about the unwarranted reproduction of large quantities of texts and reading materials and also about how re-copied books were being distributed and circulated. Before the formulation of proper copyright laws, if not by law, then at least by convention it was assumed that publishers of respective books held the rights of copying such works till an undefined time (read eternity). As a result of this confusion, it was not unlikely that publishers would be tempted to raise the price of books as high as possible; thereby delimiting the free access of knowledge available from such intellectual productions. What began with guaranteeing the sales profits for producers (through copyright), soon became a space for practicing monopoly.

After the cut on perpetuity was initiated by putting a time frame of 28 years, the monopoly was slightly curbed from the hands of the publishers and booksellers. ‘The Statute of Anne was an elaborate attempt to regulate publishers, a way to balance the interests of the book publishing industry with the concerns that monopolies were growing too powerful in England’ (Vaidhyanathan 2001).

The Statute of Anne was primarily Britain's stand on anti-monopoly, in order to establish a culture of a fair business market. It was more prominently towards establishing a pro-readership penetrative business than establishing an ideological and philosophical democratic position that would nurture open and/or free access, etc. Even when the scholars of the Enlightenment Age did raise their voices towards "education for all", it was perceived to be more of an aristocratic ruling class understanding about production and dissemination of knowledge, rather than a democratic view towards accepting "education for all", "free access to knowledge", etc. Indeed, to counter these aristocratic arguments, petitioners often used Locke’s arguments about the rights of knowledge production in favour of those who could and would be rewarded for their physical labour (NOT intellectual labour at THIS point), and that often carried some political and rhetorical force. This is one of the prime reasons as to why time and again the word "author" became important to understand and conceive. In fact the word often became a tool that was widely being used as a guise by publishers and booksellers at par to project and hide the "writer" in that perfect balance from which they could manage the highest percentage of equity. If the writer was decided to be made famous, a significant part would be engaged in deciding how much "famousness" would yield maximum profits for the publishers. Thomas Babington Macaulay, argued in the British Parliament in 1841, thus:

> "Copyright is monopoly, and produces all the effects which the general voice of mankind attributes to monopoly ... the effect of monopoly generally is to make articles scarce, to make them dear, and to make them bad ... It is good that authors should be remunerated; and the least exceptionable way of remunerating them is by a monopoly. Yet monopoly is an evil. For the sake of the good we must submit to the evil; but the evil ought not to last a day longer than is necessary for the purpose of securing the good."
>
> (Macaulay 1841)

Today, copyright has become such an intrinsic part of property laws, that the two have often been taken as synonymous and used interchangeably. To add to it, conventionally, "property" itself has become such a confusing category that people often assume and expect copyright to deal with "property laws" in exactly the same ways as laws would deal with physical property. Essentially copyright is a right to copy the expression of an idea rather than an unlimited property right – a copy-right (Litman 2001). In fact, one of the most important reasons as to why intellectual property or its rights cannot be equated with other kinds of property rights is because in the case of the former, the whole amount of labour required to produce an Artistic work is no way comparable to the very easy reproduction of its copies. The later copies can be reproduced at such nominal extra cost that it would seem an infinite mismatch between production of the first idea (copy) and mere reproduction of the easily reproducible subsequent copies. Additionally, if I give you a copy of the work, it does not diminish my use of the artwork; therefore we can all have a copy without anybody losing out. Again, contrasted with physical property, if I own a car, only I can drive it – naturally only one person at a time can use that car (Boyle 1996). Copyright establishes the author as the creator of an intellectual work and creates exclusive legal rights for the author to control

derivatives, duplication, performance or distribution of their creative works (May 2000). Next comes the most important aspect of understanding and clearing conceptions and misconceptions about copyright. If an author thinks of a brilliant idea which she wants to give shape into a novel, then she would generally write a draft or a manuscript of her ideas of the novel as the first step. Copyright, as a law, has the power to protect and prevent the redistribution of the draft or "manuscript" of the idea but never the "idea" itself. What gets protected is never the intellectual property but its consequent rendition of and into the physical property.

A dissatisfying result of this phenomenon begins when the two stages of difference get apparently erased and the general proprietary human psyche starts mistaking one for the other. That is exactly why, under specific written consent, copyright laws can be passed on to third parties for processing advanced business with the artwork, in which, the "idea" may have no connection with such third parties and vice versa. Copyright is one of a number of intellectual property rights, which also include patents, trademarks and design rights, that allow the creator to exploit the work by licensing others to use it (May 2000). Copyright is one of a number of intellectual property rights, which also include patents, trademarks and design rights, that allow the creator to exploit the work by licensing others to use it (May 2000). Assigning and allocating a monetary value to an intellectual or cultural piece is assumed to increase the overall worth of the product itself Copyright is one of a number of intellectual property rights, which also include patents, trademarks and design rights, that allow the creator to exploit the work by licensing others to use it (May 2000).

Assigning or allocating a monetary value to an intellectual or cultural piece not only enhances the market price of the product (in the sense of it being a commodity) but also

ensures that a planned market scarcity is/could be created amongst those who do not fit the best interests of the sale of such a product. Creation of scarcity becomes instrumental in rendering a product as important and it creates a notion of “exclusivity”; which is a hallmark of exclusive physical property. The whole difference between the consumption of a physical product and that of a non-physical cultural product is that if a loaf of bread if consumed, it gets lesser in quantity and the next person may not be in a position to “share” or “consume” exactly that same amount of the product each time as can be said in the case of reading a poem, where, upon being shared, every person involved in the whole process can read exactly the same piece each single time. For an intellectual property right to be implemented, there should be (naturally) the creator and the work. The work should have a clear point of origin, and/but it should be reproducible. It should stand the chance of being replicated in other places, but should not be replicated as part of the legal bindings. That it can be provisionally replicated, partly gives it the status of a physical property; but even under replication, the fact that any number of consumers would be able to consume the work in exactly the same proportion, takes away its possibilities of being treated as any other kind of physical commodity.

That is exactly why the treatment of intellectual property (and its rights thereof) as physical property (along with its rights) becomes extremely problematic and debatable too.
It appears to be seemingly important that in order to create new categories of rights, one should understand new categories of the subjects or works itself. To add to the general confusion is the fact that intellectual property rights are often confused inter-categorically; between social rights ("natural" rights?) and economic rights. Rights for consumption of an intellectual work by a consumer from a social point of view versus the rights of the creator to enjoy and reap economic benefits out of the produced work, by (often) not giving free access

to the expectant consumer from an economic point of view is a major debate that needs to be understood and sorted. Should a category of writing, such as computer codes, which has, almost always been commissioned, be treated as the coder's original work or should it become an alienated element in the bigger process of software development life cycle (SDLC)? The legal boundaries on non-physical property include the rights to charge rent for its reuse, which evidently proves that what has been out on rent is the physical capsule that encompasses the non-physical idea within it.In the digital environment, much of the debates that concern intellectual property are about the use and loss of control. Copyright is understood as a bargain between creators or authors and the public (and enforced by the state through legislation) to provide recompense to the creator but also to increase the amount of knowledge, music and art in our society for the benefit of all. It is therefore clear that copyright is being transformed from its original intention to that of meeting the needs of corporations wishing to safeguard existing profits and artificially create new markets (May 2000).

The increasing importance of intellectual property rights and any amount of debates circulating the same, involves a lot of political and social boundaries within which the production and dissemination of information (and knowledge) takes shape amidst a constant flow of user-produced culture. The commodities containing information, such as texts, create meanings and transform such meanings into culture and communication while the legal parameters between which such work can be accomplished, remained definite, finite and defined. This also calls upon them to present themselves in an active engagement with both commoditized culture (such as through decoding through consumption) and their own user-created transformation (Coombe 1998). With the strengthening and widening of intellectual property laws, these citizens' agency will increasingly be mediated and structured through a

juridico-technical apparatus designed to legitimate and prohibit certain cultural usage (Lessig 2002).

The threats on the individual in the contemporary societies are more prominently found as coming from private property rights of information dissemination than from any other form of moral economies put together. So much so, that post the Digital Millennium Copyright Act in the US, the legally exclusive policies and technical/technological protection measures are themselves being supported by various legal protections. If this shows anything, then it shows how intellectual property is being time and again treated like physical property and how that creates a confusion and discomfort in defining the legal boundaries that are expected to independently protect these categories. The tradition of law within a framework of liberal philosophy is to protect individual interests from the aggressive interventions of the state. The role of the public sphere becomes important because a mass opinion in the public sphere may become a potential check on the functioning of the state. But in contemporary societies, what delimits the voice and free speech of the mass, besides censorship by the government and/or the state are the copyright and private property rights which take up the guise of the state itself. For instance, Adobe e-Books can restrict to a fine level of granularity how you can use the text; the publisher can even mandate how many times you can print pages from the book, whether you can copy it, or if you can copy and paste sections into other texts. They can also set an expiry date for the book, so that after a certain date the book will self-destruct and delete itself from the system (Gillespie 2004). These legislative changes have been raised in reaction to the digital transformations of our use of culture, which have facilitated widespread cultural participation and interaction that previously was not possible (Castells 2000, 2001; Lessig 2004; Benkler 2006). The outflow of creativity, ideas and emotions in a material and physical format is usually encoded as digital information enabling

it to be readable, searchable and transferable through databases and hyperlinks. The production and dissemination of such (physicalized) information becomes a key resource of wealth capital (not just non-commercial cultural capital) and becomes a possible source of conflict with private property rights. The new clientele, who is nowhere in the process of the making of such information becomes a part of the compulsory buyer in order to have access to such information. Thus with the materialization and privatization of property, there arises a collateral restriction of delimiting concepts, ideas and institutions. Therefore, the informational or creative economy is seen as a viable economic model provided full property rights are extended in this way to the intellectual, informational and immaterial (Greenspan 2003). Post the *Digital Millenium Copyright Act 1998* (DMCA), a legislation had been passed which would criminalise any duplication of databases from the raw data; in a unique understanding of legality. Previously formation and duplication of databases from raw data were not understood to be a legal crime. In the European Union too, many such processes started coming under the perview of legal protection, which was indeed a novel move in terms of software patents after 2002, when (the) The Computer Implemented Inventions Directive critiqued the cynicism posited by the civil society in democratizing software patents as part of legislative implementations.

It is not new to understand that capitalists would wish to encapsulate knowledge as part of their profit-making investment model, however the aggressive and expansive nature of property law gave a new garb of justice, equality and democracy to the mass; thereby creating a confusion as to which process would be seen as more democratic and just. On one hand it would seem that ensuring rights of knowledge-production to the deserving candidate, is definitely a fairer side of patenting softwares; while on the other there would remain the possibility of exclusivizing knowledge within the bounds of the capitalist firewall. Therefore

it is important to understand that most knowledge and information industries would naturally want more legal categories to exist, which would guide information all the more within the domains of property rights itself. It is precisely against such encroachment that movements such as FLOSS (Free/Libre Open Source Software) have gained such prominence in portions of the public sector. FLOSS tries to establish an equity between wider public good and private personal benefits by ensuring open access to people over digital content. It does not close down discussions on property rights; it only reopens issues of basic understanding of access of property that is meant to be public, yet for mercenary reasons, are far from being so.

As users of the internet, we all keep using content that is not owned by anyone, shared and redistributed in internet innumerable times, without realizing the same. Government policies are increasingly being enforced in most of the societies leaving zero scope for democratic debates and discussions. As a result of this, the shared network economy is constantly facing challenges to reshape itself within a framework that tries to equate creativity with its corresponding high sales; not wider reach. It is at this point that free data can be transformed to a sellable property by arranging it in a specific format; known as the database. This situation becomes even more problematic than solving copyright problems, when they reach the scientific domain of patents. Patents are an undertaking in itself of its originality and uniqueness. Yet the commercialization of the same ensures narrowed, elite reach to a particular mass that can "buy" access to such patents. In fact, copyrights and patents are the two key areas that are most widely contested by the FLOSS activist groups. These days, patents have expanded their limits from ideas to concrete business processes, to make the philosophy of restrictions a full-circle and complete in itself. Naturally then, these are definitely viewed as direct potential threats to free softwares and open source projects that rely completely on freely contributed and redistributable work. Signs of aggressive use of

software patents in order to close open source projects have already begun to appear, with the LIBDCA project, which is an encoding software package, receiving a threatening letter from Digital Theater Systems Inc. which claimed that its patent was being infringed (Smyth, Smyth and Smith 1998; FFII 2004). Now then it remains for us to understand and operate upon “Who/What are the Commons?”

Chapter 5

Alternative Modes of Knowledge Production: Understanding the Nuances of the Wiki-Based Modes

Alternative Modes of Knowledge Production: Understanding the Nuances of the Wiki-Based Modes

> "We know only a single science, the science of history. One can look at history from two sides and divide it into the history of nature and the history of men. The two sides are, however, inseparable; the history of nature and the history of men are dependent on each other so long as men exist. The history of nature, called natural science, does not concern us here; but we will have to examine the history of men, since almost the whole ideology amounts either to a distorted conception of this history or to a complete abstraction from it. Ideology is itself only one of the aspects of this history."
>
> (Marx, 28)

In order to read what we attribute as social history, it becomes inevitable to look at the process of historical and material productions, reproductions and redistributions of not just power and surplus value, but also a process of generation, appropriation and redistribution of meaning. If "ideology" was to be read as "a" political category, then perhaps this category would act more to map the society in its own terms, than be mapped by social realities which exist outside ideology itself. Perhaps ideology would try to posit itself as some kind of an intellectual map within a social-political landscape. Let us start by looking at the writings of Sir Francis Bacon in *The New Organon*, as early as 1620:

> "Those who have taken upon them to lay down the law of nature as a thing already searched out and understood, whether they have spoken in simple assurance or professional affectation, have therein done philosophy and the sciences great injury. For as they have been successful in inducing belief, so they have been effective in quenching and stopping inquiry; and have done more harm by spoiling and putting an

> end to other men's efforts than good by their own. Those on the other hand who have taken a contrary course, and asserted that absolutely nothing can be known — whether it were from hatred of the ancient sophists, or from uncertainty and fluctuation of mind, or even from a kind of fullness of learning, that they fell upon this opinion — have certainly advanced reasons for it that are not to be despised; but yet they have neither started from true principles nor rested in the just conclusion, zeal and affectation having carried them much too far."
>
> (Bacon, Author's Preface 1)

In his writings, he makes a clear distinction between "belief" and "inquiry". What is crucial here is the fact that Bacon saw "beliefs" as something deeply rooted in people's minds. He asserted that those who firmly carried such beliefs, trusted entirely to the "force of their beliefs" and made no effort towards hard thinking, perpetual working and exercise of the minds. His argument tends to reach the lines of a binary; that between belief without proof and hard work which comes with documented evidence. Perhaps this is an instance where Bacon was trying to talk about an early notion of ideology, where a system of belief prevailed, rather strongly, without a demand of falsifiable proof embedded in it.

What precisely was Bacon's characteristic reasoning to accomplish certain information about common things and its laws, and how was he to put it to utilizations? The undeniable answer is that he was to take after a novel technique: however exactly what was this strategy, and would one say it was novel? Like his desires for regular rationality, Bacon's proposed strategies were totally novel for characteristic savants however they were not novel in any supreme sense. Similarly as his desires for characteristic reasoning were adjusted from the yearnings of his father's age of Tudor statesmen, Bacon's systems in normal theory were adjusted by him from methods in English law. In particular, certain methodology in lawful

examination and court preliminaries, when connected with Bacon's own particular recommendations for lawful change, not just precisely parallel his system for an improved common reasoning, they were in fact, also a model for it. One can perceive how productive it is for a comprehension of his logic to recollect that Francis Bacon was a Tudor statesman's child and to perceive what specifically this involved or entailed for him. It is similarly critical to recall that he was an accomplished and learned Elizabethan regular attorney: an energy about the workings of the law and the suppositions of the expert legal advisors is basic for understanding Bacon. In the 1590s, Bacon climbed quickly and high in the lawful calling. Genuinely, it was in the centre long stretches of King James' rule that Bacon won the colossal law profiles (Solicitor-General, Attorney-General and afterwards Lord Chancellor), however whatever the specific requests of these workplaces of state demanded, they acquainted Bacon with minimal introductions about the real workings of the law which he had not officially experienced amidst the rule of Queen Elizabeth. For Bacon, 'finding' or revealing the certainties of regular reasoning included a few phases, for every one of which a precisely parallel element existed inside the law as he honed it or needed it to be honed. One should critically analyze at least those parts of the Elizabethan law framework with this subject of 'disclosure' at the top of the priority list; where all things considered, just those legitimate procedures and establishments which served Bacon as models for an improved characteristic rationality require greater importance.

The narrative of generally medieval and Tudor English law is mainly the tale of the victories and improvements of the lord's equity. Despite what might be expected (particularly among seventeenth century legal counsellors), England's law is 'custom-based law' not on the grounds that it had been indistinguishable with the antiquated and nearby traditions of the 'ordinary citizens' but since it was general: it was the law apportioned all through the land by

the Norman, Angevin and Plantagenet rulers. Wherever the illustrious court was to be found (and it moved incessantly), there the lord and his nearest guides would hear and judge supplications. However, amidst the later half of the twelfth century, men to whom the lord had appointed a portion of his power to pass judgment on debate started to live at Westminster and they every so often visited the wide open court in his name too. Here started the immense imperial law courts and the normal assizes in the wide open, and the perpetual misfortune to neighbourhood courts of much business and managerial experts were very common to spot as well. The Angevin rulers did not administer a very basic level distinctive sort of law, nor did the neighbourhood nobles and dignitaries (in spite of the fact that they constantly declared the privilege to pass judgment on genuine violations — 'the pleas of the Crown'). They, as well, were to a great extent worried about residencies, wards and commitments, yet the ruler's power and ideal to give equity fundamentally outperformed that of any lesser master (or so the rulers have over and again asserted).

At the point when England's lords initiated courtrooms, they made additionally the new classes of regal government hirelings who worked in such rooms: the judges, lawyers and clerks. Proficient illustrious judges, whose specialties were gotten exclusively from an office that they held at the lord's pleasure, reliably conveyed a similar equity in their lord's official courtroom, and for their own direction they alluded to their own and other court-experts' past encounters and methodologies instead of focussing on case-specific or extraordinary evidences. As it were, before the objective examination of litigations became commonplace in England, it was important to have regal legal workers, for full time engagements, to be utilized in releasing their lord's duty regarding equity, and the institutional memory which took after from this perpetual quality. Men presently could expect objective examination of their litigations, and from courts controlled by the most elevated expert in the land. Men would ask into the 'actualities' of a given debate, men would

settle on choices from there on (construct incompletely at any rate with respect to their requests made and hearings granted, and following the 'courses' followed in and by the court), and not by any means get affected by the immense nobles who could effectively overlook or overrule the summons of an illustrious official courtroom. These extraordinary changes happened in the later twelfth and mid thirteenth centuries, and 'not until the point that it happened ... did we have a substantive arrangement of Law' (Bellamy 2014).

We often choose to consider 'courts' as foundations where settling about rights and commitments are directed by legal advisors, and where a body makes a decision about dispensing disciplines upon the liable. It is hard to recover the feeling of the term 'court' which was predominant in late medieval and Tudor England, and to recall that 'courts' were not committed exclusively to the mediations of litigation as perceived through objective debates. 'Court' was a general term, depicting those formal proceedings with courses of action by which men of honor all through the nation led and supervised business of any kind (both for themselves as well as for other people). 'To hold court' was to administer. The privilege to hold court surely gave its proprietor the obligation to apportion equity, if that was what the quick circumstance required. Primitive masters represented their properties and workers in seignorial courts. The old divisions of the nation were directed by the borough, hundred and county (sheriff's) courts. The regal family unit had a wide range of 'courts' adjacent to the 'imperial court' where the 'retainers' wandered; notwithstanding 'victualling' the family as was directed through the 'Court of the Green Cloth'. To put it plainly, the administration of the whole kingdom was directed through 'courts'. The 'custom-based law' existed as 'a side-effect of a managerial triumph, the manner by which the legislature of England came to be incorporated and concentrated amidst the hundreds of years after the Conquest'. The medieval imperial courts of Exchequer, King's Bench and Common Pleas accomplished more than 'offer equity' to the lord's subjects; they were the new, particular organizations by which he

governed and controlled his domain with an expanding expert. By mid-Tudor occasions, these courts had been supplemented by more current ones, for example, Star Chamber, Requests, and Wards. These frequently have been called 'privilege courts' keeping in mind the end goal to balance them ominously with 'precedent-based law' courts, however this qualification is deceptive and altogether misleading: 'the "custom-based law" courts of the sixteenth century had been the "privilege courts" of Angevin days'. As a result of this authoritative triumph, the nature and reason for law and courts 'of law' were comprehended to be substantially more extensive than the matter of settling debates alone. Law and official courtrooms were for the administration of entire England. It will be profitable to condense (in a profoundly preoccupied shape) what a late medieval and Tudor court preliminary consisted of. Put in its easiest terms, in a court there is a judge, who follows up for the ruler's sake to see the law watched and equity done, and who gets help from (and guides) a jury.

In the prior hundreds of years, a jury comprised vow takers who might pledge to the guiltlessness of one of the gatherings in a suit or to the reality of his testimony, yet by Tudor occasions, the jury was a board, making a decision about the believability of declaration and conveying their decision upon this to the judge. Instead of seeking after their claims, parties were spoken to by proficient courtmen in light of the fact that the 'course' of the courts (and along these lines the moving required to prevail in a suit) had turned out to be amazingly mind boggling. At the point when a gathering grumbled and looked for review in a court asserting that another had encroached the law by a specific activity, at that point a case is understood to have started. Offended parties constantly asserted two things: that something had occurred, and that it was an encroachment of the law. Thus, a suit necessitated that two inquiries be offered an explanation to the judge's fulfilment: above all else, 'did it occur?' and besides, 'would it say it was an encroachment?'

The Tudor legitimate term which alluded to an 'occasion', 'deed', or a 'thing done' was the term: **fact**. Albeit today a 'reality' is interpreted quickly as meaning something unquestionable or sure, for the Tudor legal advisors a deed could never be comprehended in this way in the primary occurrence. 'Certainties' were persistently being asserted by parties at law, and they must be asked after, additionally revealed and broke down. The feeling of certainty most basic in Francis Bacon's day, for instance, is protected in the lawful expression 'accessory after the fact', where 'truth' is a shrewd deed. Expound procedural hardware was created by the courts all together 'to set up actualities'. Towards the start of his suit, the offended party declared that something had occurred, yet all together for his claims of reality to wind it up as acknowledged or obvious, he expected to persuade the jury and the judge that his affirmations were 'facts' without a doubt. The central route 'to build up', or 'to demonstrate' that one's charges were genuine, was to gather and to display the declaration of witnesses. The witnesses would make a solemn vow to tell what it was that they knew, and the other party's backer would attempt to undermine or supplant their declaration by addressing them or different witnesses.

The status and the notoriety of witnesses made a difference an extremely incredible arrangement. For example, if a man was available at an occasion, his declaration was of more prominent weight than if it was second-hand learning: he was legitimately an unrivaled witness qua witness. Practically speaking, the declaration of a landed man of his word would be of more prominent weight than that of a town worker, a serving young lady or a poor person: his pledge was agreed in a more noteworthy regard. The nature of the witnesses was really of more noteworthy significance for the foundation of 'certainties' than the nature of the gatherings themselves. The point was to persuade the jury (and along these lines the judge) by methods previously decided, for the amount, quality and consistency of the declaration one had made that what one had charged was valid. To 'build up' a 'reality' (i.e., to settle to

the court's fulfilment that a specific occasion had occurred, and what it was), a gathering needed to assemble declaration, and after that effectively 'demonstrate' (i.e., 'test', 'contend for') it to the jury and the judge by methods for unbending techniques for seeing, contention and the appraisal of declaration.

Legal counsellors were required to take after acknowledged systems and to manufacture consent keeping in mind the end goal to 'set up actualities' in a court. 'Certainties' were legitimate substances; they were antiques painstakingly built amid the court's preliminary claim to truth. There were events when bids were not made specifically to a known law, yet rather to a translation set upon known laws and more seasoned judgements, and this understanding was guaranteed as help for one's request (or on the other hand disavowal) that an encroachment of the law had happened. By the sixteenth century, the custom-based law was viewed as enveloping more than the statutes, illustrious declarations and the more established legal choices; it was accepted to be an enormous group of law, including much which was unwritten. Additionally, it was accepted to be organized as per reason, and due to this structure, when the known laws did not give clear signs of encroachments, legal counsellors would speak to what they took to be the certain message of the custom-based law. Since the custom-based law was accepted to be reliable, and also balanced in character, an attorney was set up to contend from different cases to the present one and, in the wake of looking at those cases, to create an announcement about the law verifiable in them with a specific end goal to support his present cases. The legal counsellor's errand in instances of this sort was to reveal what the law, albeit covered up, had dependably 'said' about this case. This will be investigated all the more completely beneath, yet we require first to consider all the more firmly particular strategies by which declaration was assembled and realities 'built up' in Elizabethan court cases.

By the later half of the sixteenth century, the colossal illustrious Court of Chancery specifically had worked out expound systems for social affair declaration in common suits, and it was feasible for a gathering at law to buy the utilization of this Chancery procedure notwithstanding when the suit was entered in another court (e.g., in King's Bench, Wards or in a neighbourhood court). In Chancery, the foundation of realities ordinarily was accomplished by methods for 'examinations'. After the offended party enlisted his complaint with the court ('showed his bill') and the litigant at that point displayed his answer, a Chancery subpoena advertisement *testificandum*[11] would be served on each witness named by either side, and men engaged by the court would start the extensive business of social event towards their declaration. This should be possible either 'around the local area' (e.g., in Chancery Lane) by the Chancery analysts themselves or 'in the nation', for which a commission for examinations was granted to the chosen people of one or the two gatherings. Of course, Chancery examination, especially examination in the nation (which by definition was not administered by customary authorities of the court), ended up encompassed by a woods of guidelines intended to guarantee the uprightness of the methodology; yet the basic structure stayed direct. Each witness was requested to react upon vow to a rundown of inquiries (a 'timetable of interrogatories') surrounded around the pleadings made either by the offended party or by the respondent (contingent upon whose witness this was). The important insight had worked out these interrogatories and marked the material, a Master in Chancery investigated the inquiries in the timetable 'for adequacy', and after that the analysts or officials started their work. Comparative courses of action of interrogatories and statements were utilized in the Court of Star Chamber.

[11]A subpoena ad testificandum is a court summons to appear and give oral testimony for use at a hearing or trial. The use of a writ for purposes of compelling testimony originated in the Ecclesiastical Courts of the High Middle Ages, especially in England. (2018)

The noteworthy contrast from the systems of the Chancery was that notwithstanding the observers, here the respondents themselves were inspected upon pledge. In Chancery, the litigant's response to the offended party's bill was given in the wake of swearing a pledge and, in light of the fact that it met every one of the focuses in that bill, his examination was not thought of as important. In Star Chamber, where the Privy Council and Chief Justices sat to authorize the lord's tranquility (offended parties routinely charged 'mob and affray'), to implement illustrious decrees and to rebuff misuse of equity (e.g., prevarication, impacting juries or hatreds of court), it was thought important to inspect respondents. Albeit most Star Chamber suits were between private gatherings, it isn't astonishing, given the focal interests of the court that numerous suits were brought here by the Crown's law officers also. For instance, on 19 October 1597, in a suit against corn engrossers, 'Kooke, the Attorney-General, educated metal tenus, on the admission of the gatherings themselves ... these ingrossers were analyzed by Bacon, Counsel everywhere to the Queen' (qtd. in Bellamy 2014).

Analysts offered commissions to torment the accused, knew precisely well as to how long persistence may incite admissions, yet how could the uprightness and/or truth of these declarations be known? For such expound strategies to be effective against unwilling people whose psychological and physical well-being habitually was falling apart, the inspectors expected to depend mainly upon their expository aptitudes in confining testing questions and investigating the testimonies. The words from a detainee's lips were in themselves shameful of the analysts' trust (notwithstanding when the inspectors were allowed to torment, and were then joined by talented 'rack-experts', for example, Thomas Norton, Richard Topcliffe or Richard Young). What analysts trusted was the data at last coming about because of their thorough and rehashed arrangement of an examination strategy totally under their control: that is, they viewed as obvious the last record (i.n., the certainties) of what occurred, why,

and exactly who was included, which they themselves had produced from the numerous layers of declaration, questions, filtering, cross-referencing and investigation. At the point when such a report of realities was introduced at a preliminary inquiry of the litigants, independent of whether the respondents currently revoked it, it would in all likelihood be viewed by a court as convincing proof. This may clarify why these terrible assignments were typically given to men who had incredible regard for formal procedures as a rule, the capacity to reproduce past deeds from regularly clashing data, and involvement in assessing the full degree of any criminal plot: specifically, the law officers and a select hover of senior attorneys trusted by the Privy Council. However, what was an 'issue'? Like a reality, it too was a curio of the court. An 'issue' was to come to at whatever point a claim (or the presumption about the law which an affirmation may contain) was straightforwardly tested by the other party. For instance, let us review Bacon's debate with his neighbour over the feeding of his sheep. In the event that in his 'tally', he had pronounced that John beforehand had given him leave to pasture his sheep in that field, and John's answer was that he had not done as such, at that point they (or, rather, their lawyers) have achieved whatever it takes to be an 'issue', since a particular foreswearing of a declaration had been made. The members of the jury would then be requested to decide this issue (i.e., 'did John give the consent, or not?'). However, maybe John would not wish to 'join issue' on ground picked by one person; he may wish to acquaint new data by which he would want to absolve himself, instead of directly denying his affirmation. Along these lines, John may answer, 'Truly, I had assented, however simply because I was constrained into it.' The accused at that point could deny this specifically (subsequently coming to an 'issue': was John's assent constrained from him, or not?) or one could 'admit' to the new data (as John had done) yet 'maintain a strategic distance from' the issue by presenting one's own particular palliating data. Claims, at that point, included the fighting of the lawyers with respect to which conceivable issue they would at

long last 'join' upon, since each wanted to achieve an issue profitable to their own customer. The procedures overseeing the strategic arrangement of the different sorts of pleadings were a focal piece of the attorneys' exchange, and they were known among the men of the Inns as the 'art of well arguing'. As Sir Thomas Littleton put it, 'know, my child, that it is a standout amongst the most fair, gainful things in our law to have the exploration of well arguing in activities genuine and individual' (Littleton 2013).

Elizabethan normal attorneys perceived, as had the legal advisors of old Rome and the medieval Church, that their 'art of well arguing' rested soundly upon the antiquated specialty of persuasion, a learning of what is likely or plausible, or how honestly to develop proofs by contention from probabilities as opposed to from self evident convictions (as the savants favored). '*Dialectica est scientia probabiliter de quovis themate disserendi*', commented Sir Edward Coke, 'whereby it appeareth how important it is for our understudy' (Littleton 2013). Yet whatever the issue came to in a claim - regardless of how apparently minor or far expelled from the completion of the first 'genuine' debate - this by itself was the inquiry put by the judge to the jury for their assurance. In spite of the fact that it was a deception of reification and an expert fantasy, sixteenth-century regular legal counsellors immovably trusted that a colossal substantive collection of law, 'The Common Law', really existed in its own particular right, incorporating any outcome and holding answers for their each question. Obviously, such a confidence brought functional troubles. Since 'The Common Law' was to be comprehended as an omni-competent assemblage of law, and since debate without number were everlastingly rising - every one of a kind in its subtle elements - the immense majority of the law was essentially obscure under the steady gaze of specific court cases which had been declared.

From one perspective, the fantasy maintained the legal advisors' certainty that expert inquirers into the law were irreplaceable for the benefit of everyone, yet, then again, their

troubles (like that of the brotherhood of any prophet) remained that 'The Law' was not accessible to them in a solitary extraordinary 'book'. By and large, honestly 'contemplating the specialists' (i.e., perusing writings) and by getting to be 'learned in the law', legal advisors anticipated to see through portions of any legal ambiguity. English legal advisors and judges dependably accepted personal notes as private *aides memoires* on parts of law cases that intrigued them. However most cases were not 'fascinating'; that is, as to the details of arguing or methods, they were the same as a hundred others: an expert legal counselor gained from them nothing surprising about his exchange. In any case, a novel issue over pleadings or a contention among the judges and Serjeants about a state of law was probably going to draw in a note-taker's consideration; by and by, if the case generally fell into a recognizable example, no different procedures (regularly not in any case the inevitable result) would be recorded.

All things considered, noticing all the (anticipated) moves in the advancement of a run of the mill suit would have been silly work for the legal advisors. 'Maxims' were not seen by Tudor legal advisors as proclamations of general 'standards', as the term is typically comprehended: that is, as introductory premises or all-encompassing structures (for this situation, inside the law). The basic legal advisors utilized the terms 'guideline', 'proverb' and 'manage' reciprocally, and it is exactly in light of the fact that they didn't share the epistemological presumptions and the dialect of savants (and common attorneys) that they could do this.'That which our author here and in other places calleth a Maxime, hereafter he calleth a Principle; and it is all one with a Rule, a Common Ground, Postulatum, or an Axiome, and it were too much curiositie to make nice distinctions betweene them.' Contemporary rationalists and Roman attorneys were unnerved by English legal counselors' obvious manhandle of what were for them exceptionally specialized terms. The impact was to strengthen the pervasive Continental sentiment that the customary law was brutal and the

legitimate learning of the English attorneys something not exactly a scientia. Whatever the feeling of thinkers or common legal counselors, regular legal advisors kept on talking about their 'maxims'. They involved a special place in the regular knowledge and conveyed incredible weight in contentions among the legal counselors: to such an extent that a typical legal advisor could attest 'they be of the same strength & effect in law as statutis be'. Much the same as statutes, sayings 'were not to be questioned; they may only be interpreted and applied . . . But they may be compared, apparent conflicts may be reconciled, and they may be justified by reason.' (Any contentions of maxims were 'apparent' and not genuine, since the law was a normal structure.) The 'Student of the Law' in Christopher St Germain's Dialogue (1532) announced there were six 'grounds of the lawe of England': the law of God, of reason, 'dyvers general customs of . . . all the realme', the customs of particular places, statutes made in parliament and *dyvers pryncyples*, those that could be called by those learned in the lawe maxymes, the which have ben alwayes taken for lawe in this realme so that it is not lawfull for none that is lernyd to denye them; for every one of those maxymes is suffycyent auctorytie to hym selfe to such an extent that it is fruitless to argue with those who deny them. And whiche is a maxyme & whiche not shall alway be determyned by the Juges (1532). The Tudor legal advisors viewed their maxims as 'grounds' of the law, a state of mind which originated from the way that they were well-worn orders for the expert, 'givens' in their training at the Inns. We know they were gotten from the experts' action of belligerence and choosing purposes of law, however it is improbable the Tudor legal counsellors at any point considered where their maxims initially had originated from, or how they had turned out to be known to their ancestors, whose presentation of them had been caught in the law reports they pored over as understudies. To address them was to reprimand the idea of their training and expert learning, and should an attorney be sufficiently neglectful to do this he would cause extraordinary offense. By the sixteenth century, the maxims of the normal attorneys were

supported by proficient confidence alone. For all their conviction that their law was balanced and sweeping, the regular attorneys put strict impediments on how far one should address learning won from the 'shrouded book' of the law. 'A maxime is a proposition to bee of all men confessed & granted without proofe, argument, or discourse. *Contra negantem principia non est disputandum*.'

Antoine Destutt de Tracy first coined the term "ideology" in 1796, and saw it as a "science of the formation of ideas". Interestingly even around a hundred and fifty years later, Tracy seems to be almost of the same opinion about a binary between actions born out of belief and others born out of certain concrete material reality; thus opining that the two necessarily were different.

> "Let me be permitted then to mention here again, that I have reduced the whole science of logic to the observation of two facts, which result manifestly from the scrupulous examination of our intellectual operations. The first is, that our perceptions being everything for us, we are perfectly, completely, and necessarily sure of all that we actually feel. The second, which is but a consequence of that, is that none of our judgments, taken separately, can be erroneous, since, for the very reason that we see one idea in another, it must be actually there; but that their falsity, when it takes place, is purely relative to all the anterior judgments, which we permit to subsist, and consists in this, that we believe the idea, in which we see a new element, to be the same we have always had under the same sign, while it is really different, since the new element we actually see there is incompatible with some of those which we have previously seen there."
>
> (Thomas, 2)

However for Tracy, ideology was more of a method by which he proposed unquestionable governance and good to all. Iain MacKenzie, in his book *Political Ideologies: An Introduction* later opined that Tracy's ideas did not find much ground during the rule of Napoleon for whom ideology was a set of false, even subversive ideas. Written during 1845-46, (published posthumously in 1932) we come across perhaps one of the most important works on ideology written collaboratively by Marx and Engels; *The German Ideology*. In this they argue that the production of ideas is directly related to the material conditions of human life. Therefore at the level of thought and conception, every human behaviour is born out of definite developments of the material relations of production.

Ideology cannot be studied in isolation without considering other key concepts such as hegemony and discourse. A Marxist understanding of ideology suggests how a set of dominant ideas in any society more often than not reflect the interests of the ruling economic class. It is from this point that we need to look at the concept of "hegemony" in order to trace the movement of ideology from a key theoretical concept to a model of social implementation. If ideology is an attempt to link a mass consciousness into a mass consent then the social and material production, dissemination and redistribution of knowledge and human behaviour often seems to acquire its status through social inequities and gives rise to not any kind, but a particular kind of consensus. This consensus is a hegemonized one. However to state that ideology is a set of "values" or a stable body of knowledge which is transmitted only from the ruling class to its subordinate classes would not only be an over-simplification, but would enter the fallacy of the concept of unidirectional movement of power; the notion which is now largely challenged by the theoreticians of the postmodern strand of political thought. In fact, in the "**overdetermination**" model of social reality by Althusser, there is no fixity of one-way causality of hierarchies any more. As Althusser puts it, he wishes to use the term, in the absence of anything better, both as an index and as a

problem, to mean a certain kind of "cumulative internalization" (Althusser 1970). Whether Althusser finally brings in yet another linear causality in this model in some other form has been widely debated by scholars later; but that surely lies outside the scope of this debate. Althusser seems to break away from the Hegelian notion of principle by consciousness of the self, which he calls ideology, and argues that the Marxian notion of Base-Superstructure was not so much of an intention to portray a "direction" as much as indices signifying "two ends of the chain"(Althusser, 1970).

When Antonio Gramsci uses the term "hegemony" to describe how the state and civil society ensure a certain kind of consent from the mass and situate them to class hierarchies within the frameworks of a capitalist society, the ideology that guides the process of this situating often pre-assumes the unidirectional flow of power. Much against the notion of this unidirectional traffic, hegemony can be read as an element hung in the complex network of relationships of production of power which increasingly lack a definite centre. However the decentralization of the new centre is far from the dream of decentralization of power.

How ideology and hegemony enter a relationship with each other and operate at different levels of the society can be explained in a million possible ways. In this chapter, I will however try to take up one of such infinite ways. I will try to read a movement called FLOSS (Free, Libre Open Source Software) and see how this has tried to open up a new horizon of resistance in the field of Marxist political economy. If the word "hegemony" itself is taken from the Greek word "hegemon" meaning a leader, perhaps it signifies a certain kind of an ideological leadership; that of the dominant ruling class. In this chapter, I will not only look at the politics of open source, hacking and the constitution of LINUX; but also locate the FLOSS movement within the parameters of a new kind of hegemonic discourse; within the key concepts of "non litigation" and "non property"; borrowed separately from Jean Francois Lyotard and Richard Matthew Stallman respectively. A "différend" is a specific case of

hegemonic position of powers where in a case of conflict between two parties, the conflict fails to be resolved because similar laws may not be applicable to the parties involved in the conflict.

This différend is different from "litigation" where the conflict can be resolved, at least provisionally, because the criteria for resolving the conflict can be applied to the parties involved in the conflict. For the time being we will call the concept of différend, a concept of "non litigation". While "non litigation" was often seen as a hegemonic point of no return, where the capitalist would inevitably win not because the state and civil laws are in their hands but because the formulation of the laws are outright not applicable to the ruled subject; the notion of "non property" uses this hegemonic oppression to its advantage. Stallman suggested that in software and coding, the control codes should be transparent to all and "free software" is one answer to a world built in code:

> "We could imagine a legal practice that was different —briefs and arguments that were kept secret; rulings that announced a result but not the reasoning. Laws that were kept by the police but published to no one else. Regulation that operated without explaining its rule."
>
> (Stallman, 18)

FLOSS tried to read the politics of the source code as the wealth of web networks; as personal property. It was such a code where the coders (labours) could only bear witness to the insoluble dispute of rights whose demands for justice could never be satisfied because the code needed to be hidden from the mass/users for the capitalist purposes of industrial monopoly. The state/police/patent held the code and the users were forced to use only parts of the software with limited access. Stallman saw this as the classical practice of alienation and echoed Marx's attempts to conceptualize how the big bourgeoisie mobilise the industrial

proletariat towards an alienation of their own work. The ideology put forward by the General Public License (GPL) came to be seen as a discourse on counter hegemony where provisionally the notion of workers and users got redefined and one came to mean the other immediately when the source code of a software was released. Such changes culturally came with a new meaning. In this new discourse, labours were not working towards a "free market"; because the labours, in the very least, were not working towards a pre-defined market. Each coder could now be seen as a hacker (independent or non-commissioned coder?) but could not be subjected to litigation policies (like earlier hackers) because the same would not be applicable to coders under open source softwares. What was created out of this movement was a different notion of property which did not obey the hegemonic rules of private property. Also the ideology that previously bound the ground rules for property usage or consumption could now be easily negated under the new circumstances. In the new system, anybody could provisionally be a coder, gamer, author, commentator, etc. Stallman calls this the notion of the "non-property" which potentially began to challenge the relationship between ideology, hegemony and discourse.

Does this mean that such counter-hegemonic innovations would result in an end of existing ideological practices? Does this mean that ideology would be less interrogative in the digital age? Does this mean that hegemony would completely work at different levels and leave the domains of Open Source Software (OSS)? Perhaps we should begin by asking questions about the continued relevance of ideological thinking in itself as well as its relationship with new hegemony. If the world is shrinking in the digital media and becoming one universal entity, then shall we still end up having competing ideologies and cultural conflicts? Or are we once again, as the classical notion of Marxist ideology would suggest, heading towards the unidirectional flow of power in terms of ideology and hegemony?

Beyond anticipating, let us take a look at the real chunks of crisis, involved with each segment of such alternative modes of knowledge production:

Understanding the Concept of the Wiki:

The wiki is a collaborative software on the internet that propagates the idea of free cultural cooperation, by process of enabling any internet user to be able to read, modify, change and even delete an earlier text. It is a website that champions modification of its content and structure on a collaborative basis straight from the web browser itself. A typical wiki allows the writing of a text through the 'wiki markup'—a light weight markup language for wiki based websites on HTML. It is usually edited with the aid of a rich-text editor, which is nothing but an interface allowing the editing of rich text within web browsers that helps the editor with a 'what-you-see-is-what-you-get' (WYSIWYG) editing area. It aims at reducing the effort of a user who wants to express the formatting precisely as a valid HTML markup. A wiki operates through the wiki software, also known as the wiki engine. There are number of wiki engines—both open source as well as proprietary. Some of them approve control over diverse functions such as levels of access like changing content, adding or removing materials. Others may permit access sans any access control. Other regulations may also be made obligatory to systematize content. It is basically a kind of content management system, albeit vary from most other such systems, including blog software.

The fact that **change** is such a celebrated concept in the wikis, is initially often a cause of great concern to authors who are uninitiated in such modes of writing. In a world where singlehood in terms of authorship is (albeit, mistakenly?) seen as a marker of originality, the irritation that results out of anticipating any second author to come and destroy the earlier "pure" text, is highly noteworthy. Wikis always get blamed as "impure" in

a certain collaborative sense of the term. What gets lost in the process of such collaboration is a sense of “control”, “responsibility” and “complete authority”.

According to French linguist Emile Benveniste, *auctor* (which also gives us English "author") is derived from Latin *augeō* ("to augment"). The *auctor* is "*is qui auget*", the one who augments the act or the juridical situation of another.

Auctor in the sense of "author", comes from *auctor* as founder or, one might say, "planter-cultivator". Similarly, *auctoritas* refers to rightful ownership, based on one's having "produced" or homesteaded the article of property in question - more in the sense of "sponsored" or "acquired" than "manufactured". This *auctoritas* would, for example, persist through an *usucapio* of ill-gotten or abandoned property.

It becomes clear then, that traditionally, for an author, the concept of authority reigns supreme. To lose that, for a collaborative wiki, is a major culture-shock for traditional authors uninitiated in such processes. A large number of wikis also principally adhere to the legal definition of Open Source and Free Software.

Most such wikis are subject to the GNU General Public License (GPL), which, among other things, prohibits a program to be converted into “proprietary” software. In this way, contemporary intellectual property laws prevent a program from being claimed as private property by a legal person for commercial and other derivative purposes. Furthermore, the free use, re/distribution and editing of the program is also additionally ensured. Wikis can increasingly generate so many standards and levels of functions in the collaborative mode that a high shift in the process of knowledge production is gradually speculated to find shape in this type itself. The wikiwikiweb uses the hyperlink technology as embedded within the content structure of the text, which renders a non-linear architecture to the said text. This is a novelty in itself because, such non-linear structure is extremely difficult to create or simulate

in the print format; vis-à-vis the narrative coherence of the text. Some wikis may have some architectural prescriptions for navigation though, but such prescriptions are also secondary in nature, to be understood only as an aide, and not a rule to navigate through the content which is philosophically and intentionally kept non-linear through the use of hyperlinks. The knowledge of content on an a-priori basis, or the knowledge of context is irrelevant and immaterial in case of a wikiwikiweb.

The ancient Libraries of Alexandria and Pergamum initially conceived the idea of compiling the world's knowledge in a single space. In modern times, this idea got a massive boost with the availability of the printed encyclopaedia of Denis Diderot. The 18th-century French encyclopaedists too played a laudable role in this direction. Use of automated machinery beyond the printing press to construct a more effective encyclopaedia originated with Paul Otlet's book Traité de documentation. He founded an institution, the Mundaneum, for preparing an index the world's knowledge in 1910. H. G. Wells' book World Brain (1938) further expanded the concept of a machine-assisted encyclopaedia. Ted Nelson's hypertext design Project Xanadu, which he began in 1960, could be termed as a milestone in this field.

With the advent of information technology, encyclopaedias experienced a revolutionary jolt. While earlier encyclopaedias like the Encyclopædia Britannica were available in book form, Microsoft's Encarta, which was published in the year 1993, was offered on the CD-ROM with hyperlinks. The development of the World Wide Web, as mentioned by Wikipedia, fostered a number of attempts to develop internet encyclopaedia projects. The first proposal for building an online Internet encyclopaedia was given by Rick Gates in October 1993. He proposed the creation of an encyclopaedia on the net on a collaborative basis, i.e., allowing everyone to contribute ‘by writing articles and submitting them to the central catalog of all encyclopaedia pages. Later the term Interpedia was coined

for this encyclopaedia, but the project never left the planning stages and finally died.' (2013) Many years after, at the terminal phase of the 1990s, open-source activist Richard Stallman advocated an open source web-based online encyclopaedia. But it also remained unfulfilled.

On 10 January, 2001 'Wales and Sanger created the first Nupedia wiki... The initial purpose was to get the public to add entries that would then be 'fed into the Nupediaprocess' of authorization. Most of Nupedia's expert volunteers, however, wanted nothing to do with this, so Sanger decided to launch a separate site called 'Wikipedia'... Within a few days, Wikipedia outstripped Nupedia in terms of quantity, if not quality, and a small community developed.' (Poe, Marshall 2006).

The Wikipedia project grew with rapid pace—with newer articles being added every day, both in English and non-English. Today, Wikipedia is undoubtedly the most popular wiki-based website, and is actually one of the most extensively browsed sites in the world. From 2007 onwards it is one of top ten sites viewed. Of course, before Wikipedia there were a number of wiki based encyclopaedias on the web. But they could hardly taste the fruits of success which Wikipedia enjoyed. The three main reasons behind this are:

- Wikipedia attracted contributors because it was built around a familiar product — the encyclopedia.
- Wikipedia focused on substantive content development instead of technology.
- Wikipedia offered low transaction costs to participation, and it de-emphasized the social ownership of content.' (Nieman Lab. 2016)

Presently, the Wikipedia project accommodates hundreds of wikis, each one for each language. There are thousands of other wikis used nowadays—for knowledge management

resources, as notetaking tools, community websites and intranets. The English-language based Wikipedia, as of September 2016, it possesses over five million essays. Ward Cunningham, which is the developer of the first wiki software, WikiWikiWeb, in the beginning described it as ‘the simplest online database that could possibly work’. (Cunningham 2002).

Ward Cunningham and co-author Bo Leuf describes the main features of the wiki web in their book ‘The Wiki Way: Quick Collaboration on the Web’.

(1) A wiki enables users from different stages and professions who may not be registered experts in the field concerned to edit any page or create new pages within the wiki website without any technical confusion.

(2) It promotes ‘meaningful topic associations between different pages’ through creation of page links, which shows whether the required entry exists or not.

(3) Wiki pages are chiefly meant for casual visitors, for ‘it seeks to involve the typical visitor/user in an ongoing process of creation and collaboration that constantly changes the website landscape.’ (Wikipedia article on Wiki 2018)

The most important characteristic of a wiki is that it enables its communities of editors and contributors to write on the basis of collaboration. ‘All that people require to contribute is a computer, Internet access, a web browser and a basic understanding of a simple markup language (e.g., HTML).’ (2018)

The wiki website is composed of different wiki pages, which are connected to each other by hyperlinks, which is the WIKI. It is basically a record for generating, browsing, and exploring information. The wiki pages could be created and updated easily, enabling a layman, who has little idea of technology and HTML, to create and edit content (with real time facility) with proper citation. There is no moderation before the content sees the light of the day. There are a number of wikis that could be altered without any prior registration of

user accounts. However, this is also true that such features may abuse the system. But such cases are getting rare nowadays as other editors if chanced upon wrong information would correct it instantly. Basically it is a space for creating collaborative knowledge which somehow manifests a journey towards social knowledge. But in case of private wikis user authentication is required to edit the concerned pages.

The Edit button is what technologically sets a wiki apart from other kinds of softwares. In very rare cases only, some pages may be exempted from being edited in a wiki, but most normally each page can be edited by subsequent users and readers. Wikis are hyperlinked, thereby increasing the probability of an infinite navigation.

But what do all these technological innovations mean to writers? Is there really some kind of a social revolution taking place or likely to take place through the conjectures of the wiki based modes of writing? How much is free software changing the scenario of the world of intellectual property, particularly with regards to the wiki? Or is there really a connection between internet-based technology and social progress? Is there a general perception of lack-of-control emerging with the wikis? Are the wikis propagating a tendency towards a writer's anarchy? Or let us ask, that what is it in the wikis that makes supporters of free softwares and wikis elated with this concept and others generally more uncomfortable towards the culture of the wikis? There are some serious issues that one needs to take care of even before beginning to talk about writing in the wikis. One needs to understand issues pertaining to "controls" in writing; establishment, de-establishment and re-establishment in hierarchies leading to power relations between writers and readers. To top all these, arises the major question of property relationships arising from such writings.

The different kinds of technical and cultural debates that the world has seen in large, include populist determinisms that have in common the rudimentary notion that social change is no longer a subject pertaining to human decision/s; rather it is a pervasive idea that stems from the logical practices of technical developments themselves. In earlier cases where information technology was clearly seen as a mass threat and/or a guarantor of an open (free?) society, this view was consistently met with deep frowns and criticisms.

In such manner, the underlying formative stage was less about social change and more about making a straightforward correspondence stage for decentralized programming advancement. Cunningham's idea that uncomplicated and non-various levelled participation is a piece of fruitful programming advancement was incorporated into the improvement. On the off chance that he had believed that product improvement would not be conceivable without a dictator, focal control, the program code would have grown in an unexpected way. Rather, the outcome is a program whose best in class utility would just end up evident with time. Subsequently, what Brecht said in regards to radio applies to wikis as well: "It was not general society that had been sitting tight for radio, however radio that had been sitting tight for people in general." For our situation, this implies that the wiki innovation has been taken up by and by, however it has been additionally created from various perspectives. The models of MediaWiki and TWiki exhibit that, all the while, different and on occasion conflicting goals are persistently streaming into the activities. In these numerous occurrences, the requirement for open correspondence and level orders with down to earth requests connive in building up a free reference book or a venture device with potential attractiveness. The individual work forms impact the members and also the general public all in all. As indicated by Rauter, the connection among people and instruments can be viewed as a rationalistic learning process: "Individuals exist since they make apparatuses. The instruments that man creates choose whether man lives, as well as how he lives. The encounters he has when he

fabricates and utilizes devices change him. His progressions stream into the instruments. The instruments influence how individuals manage one another." This additionally applies to the improvement of wiki programming. That implies that the improvement of devices is implanted in their way of life and society, with its particular basic leadership structures, and is firmly identified with the objectives, encounters and presumptions of their "makers." The shape and substance of the formative procedure, in any case, likewise serve to "structure" society. With them, their capacity proportion is additionally affirmed or adjusted – for example, when equitable and democratic transaction structures keep prevailing throughout the formative stage.

At the point when a protest is finished, a work and arranging process reaches an end that has gone up against material frame. Amid the advancement of the principal wikis, thoughts became possibly the most important factor that were "intrinsically democratic" However, a democratizing impact through wikis, despite the fact that the device opens new possible doors in this vein, isn't really ensured. Despite what might be expected, wikis are now being utilized in organizations today without having brought about any basic changes. At another level, a similar thing that can be said in regards to the conflicted social capacity of science and innovation likewise applies even to wikis. Specialized innovations and their utilization are without uncertainty of remarkable significance to the improvement of human social orders. Devices have given individuals their deserved space to make a move, since they have empowered normal restrictions to be surmounted. People constructed utilities that empower them to more readily control nature and mankind, in all senses of the word. Hence, points of view have opened up. Connections have turned out to be identifiable and the future plannable. The freeing intensity of innovation could likewise change into chains of freedom and into the instrumentalization of people. This scrape has turned out to be known as the dual use problem. In an outline, we can state that for the appraisal of whether a device has any

socially gainful impacts, depends, most importantly, on the topic of which objectives its creation depended on and with which objectives it is utilized; besides, this must be seen before the background of the degree to which social conditions are established or accordingly changed. This likewise applies to wikis as well. For the most part, digitalization and the internet as an overall duplicating and/or simulation machine have revived the basic discussion on the job and capacity of proprietorship, principally that of licensed innovation (copyright, licenses, trademark assurance).

The wiki networks likewise are also expected to confront this issue, for the straightforward certainty that, with the production of wiki programming and each further wiki clone, a principal choice in regards to their conditions for utility must be made. Does a legitimate element have the privilege to fitting the product or parts of the product, and for what purposes? Numerous wikis today are liable to GNU-GPL controls, and are in this manner free software programs that may not be sold. In this way, wiki developers are among the safeguards and protectors of free software. Be that as it may, we are often defied with abusive rights concerning softwares and programming, as well as to the real content and substance level of wiki pages. To whom do the written and graphic content belong? At what point in time and sensibility does a content become a content? Who is legitimately dependable on such content productions? Research into whether picture content is a piece and part of the public domain is an exceptionally tedious exertion at Wikipedia. All things considered, the site endeavors to ensure that Wikipedia really remains a "free content encyclopedia". This implies it bolsters a copyright which enables anybody to duplicate, change or generally utilize content for any reason. The first or modified variant might be freely distributable. The inverse also likewise applies: If you contribute substance to Wikipedia, that content is consequently subject to this license, and you can't retroactively declare copyright claims. Making accessible unreservedly available learning remains in

ponder complexity to the ebb and flow drift toward the privatization of open merchandise; a pattern that leaves out no region of society: from the emptying out of people in general character of organizations to the privatization of water supply or instruction, education or information. The discussion on the capacity to patent quality groupings or programming is additionally an intrinsic part of the whole issue. Partisanship for the recovery of the commons (Allmende) and open merchandise from the way of life of the private are the request of the day. As to open source codes, Himanen talks figuratively of the "foundation" in which researchers make their work accessible to other people so it very well may be used, tried and additionally created. Conversely, he figuratively alludes to shut models that withhold data and exhibit dictator connections as "monasteries." However, basic social scholars question whether a basically moral investigation is inadequate or not. The bone of dispute is whether a call to "social obligation" combined with "aggressive capacity" of a competitive market is attempting to unite two oppositely contradicted standards. By and by, legitimate social control models – not the ethical failures of people, for example, Bill Gates – should be examined.

The privatization of commons is the essential requirement to have the capacity to showcase these products – for this context, programming. To make data items monetarily utilizable, a lack of supply must be initiated. On account of programming, this implies withholding the source code and restricting it through authorizing and licenses. Programming in general and the software bin particular, is liable to a property rights administration. This outcome in an uneven battle, with endeavors of invasion, criminalization and dismissal and the improvement of new procedures and counter-techniques. There is question with respect to whether this can be followed back to an essential anthropologically steady parameter ("That's simply the manner in which individuals are") or to apparently "objective" necessities that are the outcome from a financial constitution that wipes out or controls existential basics of

contenders. The free software network speaks of a counter-draft to the commercialization of data items – particularly as an option in contrast to Unix. Free programming capacities here act as an elective model that produces the expectation that the extension of the data-innovation based driving division can have the capacity to be genuinely obstructed by making accessible steady and free software. These expectations have often been incompletely figured out. The property rights administration was not the slightest bit addressed by the interest for opportunity of data in general or the freedom for networked information at large. A few types of ownership can coincide and coexist. Free merchandise can be used extremely well as a part of a general item; for example, on account of free programming, through help and books. In the endeavour to change computerized merchandise into products through copyright, licenses and trademarks, the music business is driving the route, in its battle against contraband duplicates with their saying: downloading is robbery. On the contrary side, with the Wikimedia gathering, a noteworthy player is developing that is betraying the showcasing of programming licenses, picture, film and content rights with its free distributable content by seeking after the objective of working up enclaves of advanced lodge. The Wiki Commons venture has just been specified, as has Wikibooks, whose centre is the arrangement of without cost course books whose business options must be acquired at awesome expense. This is done in the expectation of extending access even to classes with disposable income; in good faith that a business model is to be seen as a model of morality. The "key lawful political innovation" (Rilling) of the free software culture is the GPL permit. It fills in as the premise of further free substance licenses, for example, FDL or Creative Commons. Utilizing such licenses, and in view of the individual national legitimate frameworks, an endeavour is being made to use the lawful system to anchor open products and house. In such manner, be that as it may, the discourse can't stop at the point of advanced and licensed innovation. The inquiry will be presented as to the general idea of common proprietorship. When endeavouring to

answer the inquiry, it could recollect that the issue of proprietorship does not center around the connection between a man(kind) and a thing, but instead the connection between individuals with reference to a thing.

It has been implied at different events that the wiki theory rouses one to reconsider the future association of work. Halfway arranged, controlled and managed hierarchical models are countered with those that are decentralized and self-sorted out. One rationale in this is the propensity to subject work procedures to bureaucratic controls (for example over the span of value or issue administration) limits space for outline and chokes out any natural inspiration. As right on time as the presentation of Linux, the free software development not just stood up to Windows with another working framework, yet in addition with a decentralized and democratic authoritative rationality. Options are being looked to heteronymous and repelled work connections, which at the very end likewise influence one's whole way of life, private life and the association of one's available time. A portion of the protectors of free programming see here the sprouting of another, non-capitalist social request and expectation that the creation strategies for software engineers can be persisted to other social domains. In such manner, wikis are one of a series of a progression of free software examples of overcoming many an adversity. It is being demonstrated that, as on account of other programming ventures, free work structures can be utilized to surmount even complex issues. Over the long haul, their items and administrations will even show a high level of perpetual quality, since more individuals are associated with the advancement and execution procedures ideally from the very beginning. The degree to which Linux and the wiki reasoning are as of now precedents of genuine counter-ideas along these lines remains to be seen in full and analyzed. The Net world is at present a revolutionary one, yet it likewise imitates existing control models. Amid the Linux banter, Nuss as of now contended that the decentralized work shape could likewise help less free creation ideal models:

> “Their [free software's, R.H.] production method is based on public knowledge, cooperation, flat hierarchy, flexibility, international networking, and largely unpaid work, usually without contractual obligations. The production model of open source and free software has been serving as a role model for industry for quite some time now.”
>
> (Nuss, n.d.)

Expansive and/or privately owned businesses are additionally hunting down answers for their auxiliary emergencies and for approaches to be more adaptable and available. Be that as it may, most midway monitored and controlled models demonstrate excessively unbending tendencies at an initial period. Workers have been autonomously adjusting for the subsequent issues for a very long time. They have been balancing blunders, flawed arranging and glitches. Without a focused deviation from plans and directions, organizational protocols can't be satisfied. This implies, to the very least, that organizations, as well, have been reliant upon the self-governing activities of their representatives from the start. Some observe that the answer for all issues in the advancement of a worker is self association. The objective is to make work charming once more, rouse volunteerism or incorporate clients as being an intrinsic part of the development procedures. Nonetheless, this is combined with unbound employments and a solidification of working hours through – machine operated – improvement. Corporate arranged security is moved to the impediment of security being arranged by work force themselves. However the capacity to design and plan is an essential perspective of human being's modes of self actualization. The wiki networks are proliferating their thought that work association "from below" can work by giving it a shot, and with a decent proportion of achievement. Their work association model varies from the regular example through a specific transparency for results: The obligation regarding arranging and execution of the work procedure is totally exchanged to the makers. The wiki networks, with

their activities, extremely advance social creativity. Their endeavours in starting vast wiki ventures have an outside impact, as well as a type of self-illumination in such trials. Yet, as far as the credibility of things are concerned, open networks are often mistrusted and seen with a frown.

Renouncing a medium (quality) control makes many uncertainties the very validity of the data, which is less a result of the philosophical measurement examined previously. Doubt is coordinated at the inquiry concerning whether or not the majority even have enough learning to create something reliable. Furthermore, it is hard to check from whom the data begins. Are the postmodern scholars trying to locate a remedy when they talk about a vanishing of the creator/author? On the Internet, it is anything but difficult to go up against another personality – one need just think about the "sock puppets" specified toward the beginning of this book. Besides, in online collaborative writings, singular writers frequently can never again be observed. Likewise, after the past exchange on the political measurement of the wiki marvel: Is this not in truth a procedure of control and counter-control? We have to consider this inquiry as extremely important. In what manner can objectivity and quality be accomplished; together?

Let us take this opportunity to start with the inspirations of the wiki authors. The issue of vandalism has so long been discussed. Potentially dangerous (?) practices of anonymous clients are an enduring issue of open frameworks. Notwithstanding, it is fascinating to inspect alternate reasons why creators avoid needing to be named. Comparable procedures can be seen in wikis as have been examined as to the free programming network and basic data innovation. In open procedures, creators don't vanish – an incredible inverse is valid. Inside the networks, many find thankfulness and work frames that they only from time to time find in proficient life. The Wikimedia ventures, as the free programming activities that also existed previously to them, empower self-decided work in a sensible project coordinated at

the benefit of the network. Acknowledgment and the way that one's very own commitments are seen and examined, rouse members in an undertaking that further encourages them to keep working. In any case, this also likewise implies that most Wikipedia messages in certainty are not made secretly. Despite what might be expected – as we will see while watching the statistics – a gathering of individual shapes that knows one another and sets up trust in one another. This is for the most part pertinent: In the assessment of open frameworks, one must not overlook the solid social connections behind them. Cooperation and collaboration alone isn't sufficient. That is the reason wiki frameworks must create assessment conceivable outcomes and traditions that advance checks and trackability; along with locations of versions and history. By and by, Wikipedia, for which a bundle of such measures has been produced, fills in as a positive and one of the most apt models.

At first, numerous individuals take a gander at the articles in the reference book. In a perfect world, they would promptly alter any inconsistencies. At that point administrators check the alterations of articles. The ongoing changes offer a fast diagram to redraw. What's more, as often as possible vandalized pages are put under the supervision of the common as well. This changeless exertion is precisely the result of an open framework. Moreover, traditions in regards to language, procedure and equalization of substance have been stipulated, for instance, concerning the degree to which each conclusion ought to be referred to in an article. This is where the Wikipedia people group directs its discussion on the connections between objectivity and inclination, which similarly applies when managing each other's medium. We are discussing on the possibilities whether there can really be any position called the neutral point of view (NPOV). Fundamentally, it expresses that articles in Wikipedia are to consider an unbiased perspective. This at first means at least quality measures and the adherence to specific traditions are to be followed: target language, a revealing point of view and circuitous discourse is an important point in such a condition. For

example, the perception "Picasso was the best painter of the twentieth century" progresses toward becoming "In the workmanship world, Picasso is thought to be one of the best painters of the twentieth century." Among Wikipedia participants, there are different takes with respect to NPOV. Some people think about whether the content thus generated will be unbiased, target depictions would be conceivable, etc. For other people, non-cited perspectives, even in a reference book, are incomprehensible: "We can only seek a type of writing that is agreeable to essentially rational people who may differ on particular points" (Jimmy Wales). In the events in which science tries to profess itself to be objective, another recognition has grabbed hold in the most recent century in which each announcement is at first specific. The view is as of now present in the choice of a point, the phrasing, the neologism, illustrative examples and models. We realize that, truly, word references have dependably been a declaration of the information of a specific time and class (generally speaking, the informed, initiated and educated bourgeoisie).

Basic hypothesis has endeavoured to deal with this issue, among different courses, by demonstrating that the abstract individual makes target connections. The hypothesis focuses on a fulfilment of cognizance that acts as a goal as conceivable from the logical inconsistencies of the connections. To put it plain, the contrast between what is and what could be results in a standard with which singular practices and thoughts can be "estimated" – a perspective that can likewise be utilized inside the setting of productions in wikis. The discourse on objectivity could profit by thinking about basic hypothesis. So what do we do to acquire however much objectivity as could reasonably be expected?

1. In any case, subjectivity is essential to target cognizance. Objectivity isn't an opportunity from values. Those needing to be objective must have a perspective and have the capacity to state where they need to go. At exactly that point would statements be able to be examined. The critical elements in this regards are undeniable

nature, intelligent argumentation, and estimating contentions with broadcasted objectives and their recognition.

2. Endeavouring toward objectivity is in every case additionally a type of self education. For example, this implies soliciting one, who utilizes a piece from wiki programming; on the grounds that regardless of whether the new media incline toward blasting conventional social classes, utilization of the Internet, up to now, has been portrayed by significant social disparity. This is the same in case of wikis. As indicated by Wales, 10% of the clients of Wikipedia perform 80% of the modifications, and 5% perform 66% of the alters. In this manner, in spite of the receptiveness of the framework, center gatherings of creators have solidified. Investigation into this wonder is still in its underlying stages, and presently can't seem to be escalated. Under thought of these conditions, it is smarter to appraise which ventures are worked by which social gatherings and which mentalities they speak to all the while. What is their social and chronicled position from which their activities start? Utilizing this necessity, we should clear up to what degree incompleteness or add up to a factor of intrigue, can be spoken to. This requires extra information of the human science of gathering forms. (*Wikipedia,* Wikipedia 2018)

3. As we have effectively exhibited in our model of levels in the primary area of this chapter, wikis, as well, are deep inside not expert free zones. There are different power connections that are identified with regards to getting to the rights, for example. What's more, genuine power connections (proprietorship, business connections, free enterprise arranged structures, and so forth.) cross with the capacities inside the wiki network as they would do anywhere outside. This reality, as well, should likewise be considered while looking at the apparently democratic claims of the wiki structures of open networks.

In the twentieth century, "advancement" has changed into quite a risky term. For instance, Walter Benjamin expresses: "Marx says the revolutions are the locomotives of world history. But perhaps they are something different altogether. Perhaps revolutions are the hand of humankind riding in the train grabbing for the emergency brake." His feedback is coordinated at contradictory ways of life that bet on recorded change occurring with or without the mediation of people. His perfect world is fundamentally the same as that of many free programming designers. It is about the crystallization of a genuinely self-deciding way of life. This implies that, what advance is, should consistently be re-examined and settled upon. All the while, the accentuations of social labour, however, keep shifting. In the case of the wiki networks, we see that the initial step is a little one. Enzensberger comments that each communist technique of the media must seek to take out the detachment of individual members in social learning and creation forms. This is not conceivable without self-association of the members. This is the political centre of the media issue. The Wikipedia venture gives off an impression of being re-figuring the states of progress. One critical centre is the common acknowledgment of comparing people or adversaries as sensible – and we might want to include non-focused – contributors in this as well. The gigantic challenges combined with this procedure can’t be disregarded. One could maybe talk about advancement when wikis turn into a really synergistic and integrative medium reaching out past certain social gatherings. In any case, if there is to be a collaborative effort, then what would be either the point or the objective? Wikis are captivating instruments, however not fix alls. Each process should ceaselessly be dispatched with new thoughts keeping in mind the end goal to have the capacity to progress towards the far off objective of free advancement of the person as a condition for the free improvement of the system. In the wiki world, this has just been acknowledged till this day in several little zones.

What is a Wiki Project?

It is the writing on project administration endeavours to characterize an undertaking, utilizing three primary attributes:

1. It is a one-time occasion with a predefined result.
2. There is a predefined planned beginning, and a foreordained end to the task.
3. The number of individuals involved, production and financial means, and gear accessibilities are arranged ahead of time.

Be that as it may, these qualities can be utilized to portray pretty much anything from development ventures worth millions to moving furniture around in an office. Its probable clearness prompts the utilization of the term in everyday language to allude to any arbitrary human movement. All things considered, it just depicts the way that a wo/man predefines her action in his mind ("plans"), actualizes them and assesses the modified reality for any additional activity. Yet, contemporary utilization of the term isn't subjective. "Regardless of what your project looks like, you always define it on the basis of the three same elements: output, start and end date, and resources,," watches Portny. "Project" in a project or venture administration is identified with Taylor's guideline of inward division of work. As indicated by this rule, all work steps are partitioned into their individual segments (in venture administration, into "undertakings" and "work bundles") and institutionalized. The individual work steps would thus be able to be re-appointed and asset utilization all the more unequivocally arranged. Therefore, effectiveness and efficiency of large scale manufacturing can be expanded significantly. Be that as it may, essential to this achievement is the correct recognition of calendars and the broad disposal of fortuitous event. Undertaking and faculty alike are under focal control. The undertaking idea, as it likewise frames the base of the wiki rationality, counters that of the first importance of "project."

The more seasoned term "project," originating from the seventeenth century French word "*projet*," has a substantially more extensive target and is far less technocratic. It implies something like "outline," "encourage forward," "push out," "toss forward," and "push out;" all more reminiscent of the English verb "to extend." The wiki reasoning, as well, manages reformulating methodical activity, however with the expectation of moving from inactive response and improvement to normal arranging. Here, as well, the attention is on effectiveness and money saving advantage issues, however the response to these necessities is unique. The objective, which is far less clear, isn't totally founded on the power of an expansion in corporate profit. It depends on a thought of "people in free cooperation" (Spehr), went for advancing the formation of structures of self-organization and direct control of focal choices by the pool of members participating in it. Members themselves settle on objectives, developments and due dates – subsequently risking zones not being handled and the creation procedure running less straightforwardly. Let us begin with an estimate to expect that we need to act in a generally objective and situated way, accomplish solid outcomes and keep up clearness with respect to who is to do, what and when, yet in the meantime, to choose the procedure in a democratic and open way as would be prudent and not subject ourselves to self-assertive proficiency criteria. In the event that we look at the points of interest and hindrances of both venture approaches, we find that many such factors within the project can actually be combined into an integrated whole.

The stages in regular undertaking administration are entirely isolated from each other. In the event that, in correlation, one takes after the wiki rationality, there is still an overlap between the first and third and the fourth and fifth stages. As per wiki theory, the development of the group begins as ahead of schedule as the thought gathering stage, and the hover of members does not stay static, but instead can and should increase. This logic positions volunteerism as its best need. The "two foot" guideline rules: Team individuals can

likewise leave such ventures. It, all things considered, bodes well to set up obligations and clear principles after the second stage, at the latest. There is an overlap toward the finish of the venture, too. For example, materials require not to be gathered for shutting documentation, since, in a perfect world, all important data is accessible on the wiki organizer. Inside the execution stage, undertakings can and ought to be performed in parallel, even in exemplary venture administration; additionally: in programming advancement, it is now and again important to "bounce back" when one has hit a deadlock – a strategy, coincidentally, that is upheld by the wiki history work. In the event that and to what degree the arranging and execution of an undertaking depends on wikis is likewise dependably a key choice about the character and work type of a task. Obviously, one can likewise plan conventional venture administration with wikis, however on the off chance that the undertaking isn't open for genuine changes "from underneath or below," the inquiry stays concerning why one should utilize wikis by any stretch of the imagination, which are custom fitted to dynamic and open procedures. Harmonious to its condition of advancement, wikis are not constantly easy to utilize – despite the fact that it is momentous what we would already be able to do today with a solitary wiki.

Subsequently, every individual case ought to be inspected before choosing whether or not utilizing a wiki relates to the issues and to the gathering executing such a venture. "Venture," "participation," "collaboration" and "self-association" are all solid concepts underlying a wiki. However what on paper resembles a simple and unproblematic technique is abruptly tormented with various troubles during phases of its execution. As in any agreeable undertaking, similar issues keep manifesting over and over in a wiki too. In these platforms, understandings are not met or clung to. Individual contrasts and mistaken assumptions too happen. One discovers past the point of no return that individual members are more engrossed with different commitments than one had expected, to the degree they

don't treat the present task with need, or that they are overburdened. There are contrasts in conclusion concerning the technique. Human resource varies and changes to the venture where the objective presents extra project issues. There are lacking steps, if any rules or methods, with which to take care of issues. Clashes are seen by numerous as irritating. They cost time and nerves to work out this difficulty; which arises not just out of technicalities; but more on the domains of problems with participation. Be that as it may, clashes can likewise be a wellspring of elements and further advancement towards creating a version-rich wiki with a plethora of significant histories.

Chapter 6

Concluding Infinity: Connecting the Chaos, the Incoherence, the Context and the *Differend* in Digital Collaborative Infinite Writing

Concluding Infinity: Connecting the Chaos, the Incoherence, the Context and the *Differend* in Digital Collaborative Infinite Writing

The conglomeration of individual inclinations into a gathering decision is a standout amongst the most pertinent inquiries in political theory. How subjects join and measure their interests and wants towards a societal ascension is the pattern of establishment of a typically popularity-based hypothesis. However, the individual-bunch association isn't as direct as early majority rule that scholars accepted. The procedure of achieving a societal ascension between a gathering of people, each with their very own inclinations and capacities to act deliberately, is no further subsumed under a basic added aggregate connection where the gathering interest is simply calculated as the total of individual interests. However, building up the likelihood of affinities, for example, recognizing models of voting paradoxes, leading to versioning histories in infinite texts (as is the case in the wiki based modes), does infer that the association among individuals and gatherings is mostly comprehended based on network of infinite relationships. We know of conditions under which vote based social decision misses the mark regarding one’s intended goals, yet we do not know why it comes up short or what set of apparatuses is suitable to address the "black box" of the accumulation from individual to gatherings. This part shows how the procedure of conglomeration from individual to amass is in the domain of disorderly elements.

Specifically, the non-equilibrium instances of social decision, where assembled elements neglect to achieve a steady understanding point, show such "chaos". This perception represents the wide assorted variety of potential gathering, and it results in the non-additive accumulation of the total work. These discoveries additionally propose that the apparatuses of riotous elements may reveal insight into why the insecurity happens, where social decision will be most shaky, and how the flimsiness can be decreased. These are future subjects. The

principal assignment is to set up that the small scale and large scale association showed in social decisions displays tumult in its non-equilibrium cases. The part is both composed as well as taken after. This chapter, therefore, presents disorganized elements utilizing the case of the calculated capacity to show the instinct behind looking at a tumultuous procedure utilizing emblematic elements, specifically the iterated reverse picture approach; that gives birth to the kind of collaborative writing that I am trying to read and locate in this thesis. This final segment audits the multidimensional spatial voting models and applies the apparatuses represented in the second area to the instance of multidimensional spatial voting. To propose the power of this association, the chapter quickly creates a diagram, based on existing outcomes of (infinite) instances of individual-assembled collections, including straightforward voting and harmony altering market components. All these related collection conspires likewise to have associations with tumultuous elements; much like what happens in mathematical chaos.

This lets us enter into the understanding as to how voting systems, and not individual preferences, can affect voting outcomes; as was also proposed by Marquis de Condorcet in the late 18th century. In this system, collective preferences can take cyclic positions, even if an individual component in the preference plotting was not cyclic in nature; or was quite the reverse. I wish to see if such patterns could and did affect the collaborative digital infinite writing; and in what ways; so as to give birth to the *Ouroboros Snake Model of Authorship* – (my metaphor) a model which I propose, is the resultant of the history of open source software upon collective and collaborative writing. In turn, I wish to see how Chaos as a theory explores an implication of chaotic dynamics in social aggregation functions: the presence of an underlying structure created by the interaction of individuals. Chaotic processes are unusual in that although they exhibit complex, seemingly random possibilities, that are in fact highly constrained. In this regard, the final chapter concludes by returning to

the issues raised by democratic theory from the history of times and to the implications of the individual-group connection being chaotic.

Fair hypothesis of democracy, especially in its populist frame, relies upon a key suspicion that one can move intelligently from singular inclinations to a societal decision (Dahl 1956; Riker 1982). If societal decisions have little connection, no connection, or a backwards connection to the wants of its natives, at that point the importance of majority rule government is raised beyond doubt. Society turns into an element that is free of the people that form it. As Riker (1982) calls attention to it, vote based democratic system relies upon more than the finishes it accomplishes; it depends on the legitimacy of the very methods by which it accomplishes its closures. Voting, as the component by which singular inclinations are collected into a vote based decision, is at the focal point of the authenticity of the rule of the majority. Early scholars expected that collecting people's votes was a reasonable procedure. At times, the "general intrigue" was thought to be identical to the natives' advantages.

Rousseau accepted that the social contract made a "good and aggregate body" that contained the desire of the general population in what he alluded to as the "general will". Similarly, Hegel talked about the "national soul" as a reasonable single element. Where addressed explicitly, the way towards moving from individual to a gathered mass, was seen as an added substance connection: a total on total. Rousseau illustrated a plan where "pluses and minuses negate each other." Bentham saw the association as a whole of the utilities of people. Indeed, even as late as 1958, Truman (1971) discussed popular assessment as "a total of the pretty much sound suppositions held by the people who ... make up such 'people in general.'" Indeed, even these early scholars had just conceptualized the individual to group association as far as a numerical capacity: a mapping guideline from an arrangement of individual inclinations (or utilities, as proposed by Bentham) into a societal decision or a

societal inclination. Rousseau, Bentham, Truman, and endless others translated this "capacity" in added substance terms — the least complex conceivable mapping. However this capacity requirement was not to be added as a substance of "function". As Arrow (1963, 4) brings up, there are an interminable number of conceivable mappings from singular utilities to a social utility capacity: the total of individual utilities, or their item, or the result of their logarithms, or the total of their items taken two at once, et cetera. Furthermore, even if one expects that relational examination of utilities is non-problematic in nature, there is a verifiable esteem judgment in picking the accumulation in order to run the show.

The presumption, that the association from individuals to an assembly is a direct added relation connection, wound up debilitated by the revelation of apparently segregated voting paradoxes. As vote based systems spread and enthusiasm for voting was ending up more typically, models were found, for example, those by Condorcet, Borda, Dodgson, and Nanson (Black 1958), where the collection of votes prompted "unconventional" social results. These results are curious in an extremely alternative way. If the voting request is changed, or the expansion or withdrawal of what is ought to be pointless as an alternative causes startling and radical changes in the results, for example, switching the social requesting by making the victor the new failure (see, e.g., Black 1958; Farquharson 1969; Fishburn 1973; Ordeshook 1989); then the standards of voting ceases to remain in the domains of individual preferences. The revelation of these precedents was not reliable with what was thought to be an added substance relation, for added substance relations don't show such changeability and affectations. Be that as it may, the suggestions for majority rule hypothesis stayed little as long as the models were seen as fascinating however disconnected, as long as one decided to look at interests. The revelation of situations where the conglomeration of individual inclinations was dangerous, prompted banters over which voting guideline was the "best" as in it would not be liable to a breakdown in the lucidness of

the mapping from people to gathering. As ahead of schedule as the eighteenth century, Borda and LaPlace were discussing and pushing certain voting rules as better as far as staying away from mysteries (Saari 1985).

In any case, Arrow's (1963) General Possibility Theory showed that no strategy exists for going from an arrangement of individual inclinations to an example of social results that is steady with an arrangement of negligibly attractive states of any popularity based process; (such as voting). Despite the fact that issues with the individual-gather association did not happen for each arrangement of individual inclinations (as Black's (1958) single-peakedness condition illustrates), the likelihood of insecure gathering results occurred within the excess of an immaterial likelihood (e.g., Niemi and Weisberg 1968; Riker and Ordeshook 1973; Ordeshook 1989). We presently realize that the association between people's inclinations and gathering results isn't as basic as initially it was thought of as. What was once thought to be a paltry exercise in accumulating or summing singular inclinations in an added relationship in many ways has turned into a "black box" that can possibly change clear individual inclinations into results that can be exceptionally mind boggling and delicate to little changes. The capacity that maps personal inclinations to assemble decisions isn't direct and necessarily an added relationship; indeed, as will be seen, the mapping is nonlinear in nature. A nonlinear relationship infers that an expansion in one variable does not cause a uniform increment in the other variable: uniform changes in singular inclination orderings don't infer uniform changes in the social orderings, as is obvious in the winner-turn-loser paradox and the inverted-order paradox. There is an area for elements of this composition: chaotic elements. Since the social decision function is nonlinear, it is normal to expect chaos theory — the theory of non-equilibrium, nonlinear elements—to apply to the capacity that totals singular inclinations into a collaborative social decision (Schofield 1993).

Dynamics of Chaos:

Before looking at the elements of the mapping from singular inclinations to social results using chaos theory, it is beneficial outlining the qualities, techniques, and formal meaning of mayhem with a basic model from outside of choice theory. This concluding chapter presents the ideas of chaos theory by investigating the logistic function. This chapter is (finally) critical on the grounds that it delineates the definitions and systems explored in it. The methodology utilizes symbolic dynamics (Devaney 1989) and, specifically, its corresponding iterated inverse images (Saari 1991). Utilizing this methodology demonstrates Devaney's (1989) three necessities of chaos, delicate reliance on starting conditions, topological transitivity, and thick occasional focuses, as a constantly revolving praxis. In an ensuing area, these procedures will be connected to the social decisional capacity of multidimensional spatial voting. Devaney (1989) characterizes the existence of chaos in a function by the fulfilment of these three criteria:

DEFINITION 1. A function exhibits sensitive dependence on initial conditions if two points that are arbitrarily close get separated by a distance by the iteration of that function (Devaney 1989, 49).

DEFINITION 2. A function exhibits topological transitivity if the mapping has points that move from one arbitrarily small neighborhood to another arbitrarily small neighborhood (Devaney 1989, 49).

DEFINITION 3. A function has dense periodic points if, given a periodic point, there is another periodic point arbitrarily close by (Devaney 1989, 15, 42).

These conditions combine for the formal definition of chaos (Devaney 1989, 50):

DEFINITION 4. A function is chaotic if it satisfies sensitive dependence on initial conditions, topological transitivity, and dense periodic points.

These three (plus one) conditions have all been compiled in this concluding chapter to demonstrate how a theory which was initiated primarily in the domains of Mathematics (also theorized at a time mostly contemporary to 1983; the year used as a time-marker in this thesis), fitted absolutely and congruently in social science too and thereby provided a theoretical legitimacy to an altogether new system of "writing"; such as in wiki-based modes, the operation of which has been explained in the earlier chapter.

Sensitive reliance on beginning conditions is apparent in the impact of another following, underlying condition. Topological transitivity infers that one can move starting with one point of x then onto the next area—i.e., that results don't simply repeat and rehash a similar couple of qualities yet have an assorted variety of potential results. Thick occasional focuses are obvious in the bifurcation outline. Intermittent focuses are adjacent to other occasional focuses; there is a consistency in close-by directions, albeit each of the three conditions are instinctively obvious in the case of the strategic capacity, the evidence that these conditions are in reality fulfilled requires more critical readings. Setting up these three conditions formally ends up clear when the devices of symbolic dynamics are utilized.

In the chaos continuum, it is evident that point 1 (Rx) plots to point 2 (R2) since for a few estimates of x, G Rx, the capacity of the function results in a few (non-apprehended) estimates of x,+i G R2. Additionally, a few estimations of x, G R2 guide to area/point 2. By a comparable rationale, we can depict the guidelines of mapping under the calculated capacity for all the regions, condensed as:

i) if x, G Rx then x t + l G R2;

ii) if x, G R2 then JC, + , G Rx or R2.

These "tenets" on the sequential progress of mappings lay out a portion of the passable arrangements. Every one of these successions is known as a "word", and the arrangement of every reasonable word under a specific capacity is known as the "dictionary". Each sequence portrays the emphasis of a solitary beginning stage through that function. Successions that are indistinguishable for the primary n sections and that contrast after the (n + 1th) passage assign introductory focuses that are adjacent to each other. As it were, the separation between two focuses is estimated by the degree to which their sequences coordinate (Saari 1991). The likelihood of cyclic arrangements emerges in light of the input locale of R2. By emphasizing inside R2 cycles of all lengths that are prominently conceivable; the mapping back to R1, takes into consideration the complete culmination of the cycle. The governing on the mapping is just that Rx must be succeeded by R2; where R2 can be trailed either by R1, or R2.

As we can see, the non deterministic overlap creates a kind of a differential estimate of possibilities, which moves in infinite circles, though mathematically, to give birth to possibilities in “writing” which technically speaking, follow the same mathematical logic of progression. In this system, one point is already embedded in a previous another; which cannot be specifically located, because it exists in an aggregate. It is there but in no specific location. That chaos may be a part of elementary politics of "writing" can be understood by profoundly exploring the works in the fields of electoral behaviour, game theory, axiomatic choice theory, authorial discourses and conflict analyses. The social dynamical procedures that may instigate chaos, techniques for examining vast scale aggregate conduct, and ramifications for political theory research are summarily and particularly illustrated in this section. With the advent of the new century, Poincare, and later Birkoff, noticed that completely deterministic elements don't really give expressions to the pre-set expectations on

the development of a dynamical framework (Poincare 1892; Birkhoff 1927). The nuance of their perceptions was not completely understood until some time later (Cartwright and Littlewood 1945; Levinson 1949; Smale 1967; Ruelle and Takens 1971). Today, chaos is a segment in understanding unique macrobehavior in numerous sciences; including the humanities. Chaos exists when the long haul of expectation of a framework is incomprehensible in light of the fact that vulnerability in a framework's underlying state develops exponentially quick after it gains an initial momentum. Chaos fits the rule that the auto-correlation capacity of the time flag goes to zero within limited and finite time. Since directions are insecure, blunders of estimation of introductory conditions or parameters, however little, can later gather into considerable proportions of mistakes. This infers conjectures of future conduct in light of the past and ends up hazardous as present "memory" of the past falls flat. Non-linearity is a fundamental however not adequate condition for the age of chaotic movement. Obviously this suggests that some input system exists. The watched chaotic conduct is expected neither to outside clamour nor to an endless number of degrees of opportunity. The wellspring of abnormality is the nonlinear framework's property of isolating close directions exponentially quick. Since the time advancement is self-independent from its own previous history, foreseeing the long haul conduct of clamorous frameworks is an intriguing activity.

The procedure does not stop in a steady balance but rather comes to possess substantial patches of state space. Investigation is troublesome in light of the fact that steady and flimsy states are strewn together in to a great degree of entangled ways. The basic input process fundamental to the elements under scrutiny subsequently can be mild or boisterous, depending exclusively on the tuning parameter estimations of the equation(s) of movement. To be sure, for every commonsense reason, the qualification of differentiation among determinism and non-determinism vanishes. That is, even conditions those are exclusively

deterministic moves towards becoming nondeterministic in their long term realizations. One may expect it to be difficult to foresee the long term conduct of political frameworks that are conceivably chaotic in light of the fact that their underlying conditions can be settled just with limited exactness and therefore possibilities of consequent mistakes increasing exponentially quick.

For the political understanding of it all, this implies that the political actors inside a chaotic domain who are represented by similar laws and are indistinguishable in each quantifiable way may develop diversely over significant time. Once more, this would happen regardless of indistinguishable introductory arrangements. Yet, this flightiness of the long-term conduct exists just at the level of individual directions. At the level of factual properties of the time development (arrived at the midpoint of over various directions, say as they advance from various adjacent starting conditions), extremely distinct expectations are conceivable. Directions will in the long run move just on a little sub-manifold (chaotic or strange attractor) of the whole state space, with predictable occurrence frequencies of the changed parts of the attractor. It might be conceivable to assess the time up to a disorderly occasion, offering a fleeting anticipation of a political position's direction. Politics, regardless of whether it originates at the relational, state, national, or global level, results from the collaborations of people. These people are individuals from separate political groups; while some might be outfitted with more power and achieve a higher status; even they are associated in the consolidated network of relations. Political pioneers construct their choices in light of connections with their consultants; they frame impressions of their guides, who shape impressions of them. Connections change as these impressions and encounters advise resulting co-operations.

What lawmakers say and do impacts the remaining sets in a geo-political gathering and in their regions. Their remains mutually impact one another. The procedure is reflected

down to the level of the common voter who chooses, say, to help a Republican or a Democratic competitor in a decision, in light of connections with companions, family, or colleagues in her neighbourhood. Indeed, even the individual voter's musings and activities might be simply the result of inconspicuous collaborations, which are visible only when they surface as a significant point in the ambiguous pool of the continuum.

For considerable decades, we have seen insights of the perplexing individual-group nexus that characterize politics. For example, we know that political convictions are frequently founded on socially signalled philosophies as a substitute. That is, people may steadfastly reflect and take time to acknowledge the convictions of other people who have created abstract ideas of politics (Campbell et al., 1960; Converse 1964) simply because they do not agree to the belief set of the other group.

That most voters need much valuable mathematical statistics or neglect to act objectively is only once in a while discussed as part of political theories in itself (Ferejohn & Kuklinski 1990). Yet, the finish of such discussions doesn't mean we truly comprehend the system that prompts even the most fundamental types of such political conduct. **Turnout** is one such model. Many rational scholars still can't comprehend why anybody would vote, given the costs in respect to corresponding impact. Exact discretionary scholars can't make sense as to why definitely total voting rates seem, by all accounts, to be going down in cases where apprehensions were different (say). One must take note that voting concerns only a small aspect of political preferences; as much as it deals with many other things. This whole system of flux always already existed; it was only a matter of choice that scholars cared to look at mathematical points instead of the whole infinite movement in order to make their readings easy, which has nothing specific to do with the system. Formally treating intuitive

political conduct inside hugely various groups is precarious. Intelligent conduct is impossible to miss in that it can neither be anticipated nor dissected by watching sets of people cross-sectionally, or indeed, even the time arrangement from a given individual or gathering cannot be ascertained.

Social elements and the attending social conduct can't be diminished to singular conduct as much as separated people can't prompt the assortment and wealth of worldwide aggregate conduct predominant in any political framework. Social and political conduct is by definition all encompassing and synergetic (Haken 1978, 1983) and must be the result of associating people who can convey and change their conduct as an outcome of their collaborations. That is exactly the point where I have tried to locate and read the nuances of digital, collaborative, infinite writing, as part of this thesis in general and this chapter in particular.

The usage of this (chaos) 'theory' originates from the idea that, however it is genealogically independent to the group of Marxist Political Economy, it has numerous things in common and numerous ways of seeing that are totally of its own and common too. It will barely get the job done just to state that this 'theory' has a considerable amount of "postmodern and postcolonial" positions intertwined into it. This entire concluding chapter is, really, an elaboration of a portion of the particular components that have a place with this kind of 'theory'. Also, that as well, in a route as straightforward as would be prudent: I have attempted to set up the readerly participants, those who are not already initiated to interlinked theories of Mathematics, Software Studies and Humanities, in accessing this proposal. Having said that, here comes the essential point – it is so hard to be 'straightforward' for a theme that is so interlinked; therefore the only choice this position has, is to be convoluted. This inquiry comes up commonly in numerous guises all through this thesis: how to characterize 'straightforwardness' or coherence, especially with regards to an interlinked

position like the one in question, that has no hidden control of its own. This thesis expects to develop in the plain interstice of three intense controls of human idea, writing, political economy and computing; broadly seen as composing, generating and processing.

In the process of writing the earlier chapters of this book, the definition of simplicity that was settled upon, was just another name of an ‘interdisciplinary system of networked historiographies’. When a thread was taken up, it was assigned a kind of trajectory or developmental shape in this whole thesis-argument, which could seem often incoherent or disparate in discipline, space and time, even inside and within the bounds of this thesis. This is done, so that, any reader, who continues reading the thesis, in any event till this point, can get all the reasonable devices explained in one or the other chapters of the thesis, experiencing how disparate points reach an aggregate infinitude. This chapter explains the likelihood of a completely new sort of politics of resistance embedded inside FLOSS, Free-Libré-Open Source-Software. Also, it illustrates, how FLOSS opens up a totally new skyline of political economy of opposition that is even outside the cognizance of commonly practiced Marxist political economy. In this section, we will utilize these terms interchangeably (even though they may not be necessarily synonymous in effect), 'FLOSS', 'Linux' and 'GNU-Linux': markers that are intended to mean, for the time being, programming sets authorized under GPL or GPL-like licenses, licenses that flourish to ensure human freedom in the fields of software programming. The political issues of obstruction, that I am alluding to, are the opposition towards the authority of capital. As many already know, the word 'hegemony' comes from the Greek root 'hêgemon' or pioneer, that is, it flags a sort of ideological initiative of the decision-making class. This authority of capital or private enterprise, that practicing standards use in a market society, undermines to take away human freedom in infinite number of ways. Computing is only one of such domains. Furthermore, here, GPL, together

with other GPL-like licenses, made a sort of resistance towards this form of authority by designing strategies for sparing this notion of (new found?) freedom.

This chapter notes and acknowledges the obstruction given by GPL, from different perspectives – historical, economic, social and many others, and finds in GPL a completely new hypothetical plausibility of opposition. Furthermore, this revelation turns out to be urgently imperative, in light of the fact that, as this chapter aims to appear, the simple but pertinent sort of opposition that surfaced through the authority of GPL, was something very different and innovative from outside the extent of the history of human ideas, till date. This one of a kind obstruction brought forth some totally new economic and social classes, classifications that were never there in mankind's history before this point; that of the anonymous mass in a defined class. Such curious difference turns out to be exceptionally articulated, when we see that, the entire order of Marxist political economy, up to this point, cannot comprehend this GPL marvel in lieu of the existing Marxist rationale; as it is. This opens up some phenomenal vistas of political economy of resistance and opposition, the comprehension of which requests a radical new theoretical basis.

Once in a while, we name this plane as phenomenology of friendship, and call this system of opposition as the politics of subversion. The distinction of this idea, within and from the Marxist corpus, that puts surplus in a reversal of capital's authority by making a counter-authority, is very evident in the term 'subversion'. The political basis of such subversion goes past all authorities, and goes past the possibility of a reversal of the same authority. One should take note of the distinction between "the opposition that surfaced through GPL", that we composed, and what one could compose, similar to "the obstruction that GPL (intentionally) made". Every one of the general population and endeavours that

went into the making of the procedure that created GPL and FLOSS, did not know the hypothetical ramifications of the activities involved in the same. In this chapter, we will once again, utilize the idea of the 'differend' from the speculations and theorizations of Lyotard to check the initiation of the procedure. Where the creators of GPL and FLOSS were seeing lawlessness, were, in each sense, totally advocated in the feeling of legitimacy by the state, under the hegemony of capital. This precisely requires the introduction of 'differend'. 'Differend' dwells in a circumstance, which, by definition, cannot be settled, on the grounds that there is no uniform government of judgment material to the two gatherings in a common debate. The tendency of the market was bringing this aspect of human freedom under the category of theft, as was universally accepted in the earlier phases in the history of computing. Yet, these market moves were accepted as totally legitimized and lawful. For this reason, Chapter two of this thesis, has been foundational in developing the argument of why one needs to profoundly look into the instrument of state machinery and the lawful classifications of 'contract' and 'property' to demonstrate the inward workings of the lead of the capital, to get a genuine view of such moves, historically.

The point here is the exceptional nature of reconciliation of connections between the equity expected by the computing market and the equity of the market with the state. Through GPL, this differend was really settled by a deconstruction of the entire instrument of state and market. After this, at least it was no more imperative to understand that the "market of computing" was necessarily the "state law of computing" as well. This chapter aims to see the state-market nexus as merely "a choice" instead of "the only (legal) possibility". The 'differend' between the two independent disciplines and readings of equity, between the domain of the software designers and the law of the market, began to create a great deal of enhancement as scattered, disconnected and microscopic snapshots of opposition. These supplements continued expanding in form, whereby lastly this entire procedure prompted the

introduction of GPL. The introduction of GPL then initiated the vast universe of FLOSS. Also, through GPL and FLOSS, developed some (till then) obscure types of the classifications of property, capital and state. These changed classifications also managed to affect the oppositional characteristic in GPL.

GPL is a sort of a permit, known as the General Public License. It accompanied an undertaking called GNU, with a self-recursive acronym: GNU's-Not-Unix, which on occasion, is often known as GNU GPL. We will know slightly later, this GNU venture was intended to be the developing life of what we call FLOSS today. The association with a similar GNU is communicated in the name 'GNU-Linux', by which we allude to Linux in the chapter, a considerable number of times. There are numerous things related here, we will return to them later. Linux or GNU-Linux or FLOSS, whatever we call it, prominently comes to us as 'appropriation' or 'distribution' or 'distro'. Some well-known distro-s are the likes of 'Fedora', 'OpenSuSe' or 'Ubuntu'. Any bit of software programming incorporated into a FLOSS distro is authorized under GPL, or some GPL-like permit. As we are stating GPL-like, the 'resemblance' originates from the motivation behind securing human freedom, which is common to each one of them, for the reason that previously began to be realized through GPL. The human freedom, in this specific case, alludes to an opportunity of learning in the domain of computing. What we precisely mean by this 'freedom of information in the domain of computing' is excessively perplexing. One could begin to operate with a working definition of this freedom, that lets one know, that this 'freedom of learning in computing' implies the opportunity of utilization, the opportunity of modification, and the opportunity of dissemination of each bit of such computing. Chapter three, specifically has tried to look into this dynamics of information binaries. On the off chance that a bit of computing can be utilized and/or modified by whoever needs to utilize and/or modify it, as many number of times as of course one needs, one could consider it to be the freedom of modification. The

freedom of change lives in the opportunity of changing a bit of software in the way one independently needs.

The opportunity of dissemination implies the opportunity of dispersion of both the first and the altered duplicates of that bit of programming. On the off chance that, for any bit of programming, if any one of these opportunities are in place, one could call it 'free software'. One can take note of a point here, and this will turn out to be massively essential point, that the idea of 'disseminating information in the manner in which one needs', as of now, incorporates both the potential outcomes of trade with cost and without cost; therefore with margin and without one. Along these lines, any bit of software being connected with a sticker price has inspired nothing to do with the opportunity or freedom of dissemination and of conveyance (of the soft content) engaged with it. This was the logic behind taking the argument through philosophical positions and dispositions, as is done in Chapter Four. With regards to understanding the legal issues of GPL, this point has turned out to be very critical. Also, in this section we cross examine the legal issues between the classes of 'text' and 'context', and after that the politics between 'context' and 'supplement', as propounded by Jacques Derrida's hypothesis of deconstruction specifically, and Derridean rationale in a more general term.

In the next section we attempt to structure a hypothetical space that expects to rearrange and absolutely invert the hierarchy of the "context-text-supplement" as ascertained in Derrida's general theory of authorship. We can understand that such a reversal is extremely conceivable, yet confusing, and only as an instance of this probability, do we get GNU GPL. One could also allude back to this section and endeavour to attempt a rereading on how far this venture was satisfied; after locating the historiographic trajectories of the origin of authorship, property rights and intellectual property rights as explained in details in several separate chapters of this thesis. Together with Derrida's deconstruction, we get a few

components from Jean-François Lyotard as well, especially the snapshot of 'differend' in the context of developing our theoretical premise. In this concluding chapter, I propose, that the uncertain differend continues creating supplements as "bastard contents" look for parent content in order to gain legitimacy of history and/or convention. These "bastard messages" at one point gather together to produce a parent content or envelope-content like GPL. This parent content then starts creating and recreating itself in its very own setting. What is more, this nascent produced setting presently turns into the setting of the constantly perusing parent content, made by the amassing of enhancements read together as collaborative infinite writing. Along these lines, the writing adventure, as navigated by GPL, moves towards becoming enhanced from an altered hierarchical practice of 'context-text-supplement' to 'supplement-text-context'. With almost negligible knowledge of programming and authorizing and authoring, that are important to comprehend this hypothetical develop, one can still actively depict counter-venture in this part by randomly, chaotically participating in it, by oneself. This was the line of argument in Chapter five of this thesis.

Thus, this (concluding) chapter aims to act as a final flag-bearer of multi-disciplinary interconnections where Digital Collaboration, Infinite Writing and the Differend work hand-in-hand towards creating a different philosophy of writing altogether. This happens since 1983; the year in which both Richard Matthew Stallman, an American free software movement activist had launched the GNU project as well as when Jean Francois Lyotard had come up with his idea of the differend; both vitally important to understand **Digital Collaboration, Infinite Writing and the *Differend* since 1983**.

Bibliography

Bibliography

Books:

Abbas, Yasmine, and Fred Dervin. *Digital Technologies of the Self*. Newcastle: Cambridge Scholars, 2009. Print.

Albert, Sylvie, Don M. Flournoy, and Rolland LeBrasseur. *Networked Communities: Strategies for Digital Collaboration*. Hershey: Information Science Reference, 2009. Print.

Althusser, Louis. *For Marx*. London: Verso, 2010. Print. Translated by Ben Brewster

Arnold, David. *Science, Technology and Medicine in Colonial India*. Cambridge: Cambridge UP, 2000. Print. The New Cambridge History of India

Bachofen, J. J. *Myth, Religion, and Mother Right: Selected Writings of J.J. Bachofen*. Princeton, NJ: Princeton UP, 1992. Print.

Barthes, Roland. *Image, Music, Text*. Trans. Stephen Heath. London: Fontana, Harper Collins Publishers, 2010. Print.

Bartscherer, Thomas, and Roderick Coover, eds. *Switching Codes: Thinking through Digital Technology in the Humanities and the Arts*. Chicago: U of Chicago, 2012. Print.

Beasley, Edward. *Empire as the Triumph of Theory: Imperialism, Information and the Colonial Society of 1868*. London; New York: Routledge, 2015. PDF.

Behdad, Ali, and Dominic Richard David Thomas, eds. *A Companion to Comparative Literature*. Chichester: Wiley Blackwell, 2014. Print.

Bellamy, John G. *The Tudor Law of Treason: An Introduction*. London: Routledge, 2014. Print.

Benkler, Yochai, Hal Roberts, Alicia Solow Niederman, and Bruce Etling. *Social Mobilization and the Networked Public Sphere: Mapping the SOPA-PIPA Debate*. N.p.: Berkman Center for Internet and Society, 2013. PDF.

Benkler, Yochai. *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. New Haven: Yale UP, 2006. Print.

Bennett, Andrew. The Author. London: Routledge, 2009. Print.

Berdi͡aev, Nikolaĭ. *Leontiev*. Folcroft, PA: Folcroft Library Editions, 1971. Print.

Berry, David M. *Copy, Rip, Burn: The Politics of Copyleft and Open Source*. London: Pluto, 2008. Print.

Berry, David M., and Anders Fagerjord. *Digital Humanities: Knowledge and Critique in a Digital Age*. Cambridge: Polity, 2017. Print.

Berry, David M., and Giles Moss. *Libre Culture: Meditations on Free Culture*. Winnipeg, Canada: Pygmalion, 2008. Print.

Blokland, Talja, and Mike Savage, eds. *Networked Urbanism: Social Capital in the City*. London: Taylor and Francis, 2016. Print.

Booth, Wayne C., Gregory G. Colomb, Joseph M. Williams, Joseph Bizup, and William T. FitzGerald. *The Craft of Research*. Chicago: U of Chicago, 2016. Print.

Borgman, Christine L. *Scholarship in the Digital Age: Information, Infrastructure, and the Internet*. Cambridge, MA: MIT, 2010. Print.

Bryson, Tim. *Digital Humanities*. Washington, DC: Association of Research Libraries, 2011. Print.

Burdick, Anne, Johanna Drucker, Peter Lunenfeld, Todd Pressner, and Jeffrey Schnapp. *Digital Humanities*. Cambridge, MA: MIT, 2016. Print.

Burghardt, Manuel, Christian Wolf, and Christa Womser-Hacker. *Digital Humanities*. Berlin: De Gruyter Saur, 2015. Print.

Carter, Bryan W. *Digital Humanities: Current Perspective, Practices and Research*. Bingley: Emerald, 2013. Print.

Chanda, Ipsita. *Literary Historiography*. Kolkata: DSA, Dept. of Comparative Literature, Jadavpur U, 2004. Print.

Chatfield, T. Brian. *The Complete Guide to Wikis: How to Set Up, Use, and Benefit from Wikis for Teachers, Business Professionals, Families, and Friends*. Ocala, FL: Atlantic Pub. Group, 2009. Print. Foreword by Chris Yeh, VP Enterprise Marketing, PBworks Inc.

Chaudhury, Ajit, Anjan Chakrabarti , and Dīpaṅkara Dāsa . *Margin of Margin: Profile of an Unrepentant Postcolonial Collaborator*. Calcutta: Anustup, 2000. Print.

Chaudhury, Ajit, Anjan Chakrabarti, and Dīpaṅkara Dāsa . *Margin of Margin: Profile of an Unrepentant Postcolonial Collaborator*. Calcutta: Anustup, 2000. PDF. Supplement: From Rama to Marx

Chevrel, Yves. *Comparative Literature Today: Methods & Perspectives*. Kirksville, MO: Thomas Jefferson UP, 1995. Print.

Clarke, Simon. *One-dimensional Marxism: Althusser and the Politics of Culture*. London: Allison and Busby, 1980. Print.

Committee on Intellectual Property Rights and the Emerging Information Infrastructure. *The Digital Dilemma: Intellectual Property in the Information Age*. Washington: National Academy, 2000. PDF. Computer Science and Telecommunications Board Commission on Physical Sciences, Mathematics, and Applications National Research Council

Corneliussen, Hilde, and Jill Walker. Rettberg, eds. *Digital Culture, Play, and Identity: A World of Warcraft Reader*. Cambridge, MA: MIT, 2011. Print.

Cummings, Robert E., and Matt Barton. *Wiki Writing: Collaborative Learning in the College Classroom*. Ann Arbor, MI: U of Michigan, 2008. Print.

Deazley, Ronan. *On the Origin of the Right to Copy: Charting the Movement of Copyright Law in Eighteenth-century Britain (1695-1775)*. Oxford: Hart, 2010. Print.

Deuff, Olivier Le. *Digital Humanities: History and Development*. London: Wiley-ISTE, 2018. Print.

Digital Humanities 2009: Conference Abstracts. Maryland: Institute for Technology in the Humanities, 2009. Print.

Digital Humanities: An Epistemology. N.p.: Iste/Hermes Science Pub, 2016. Print.

Directorate-General for Internal Policies. *Legal Aspects of Free and Open Source Software: Compilation of Briefing Notes*. Luxembourg: Publications Office, 2013. PDF. Policy Department: Citizen's Rights and Constitutional Affairs

Drucker, Johanna. *SpecLab: Digital Aesthetics and Projects in Speculative Computing*. Chicago: U of Chicago, 2009. Print.

Ebersbach, Anja, Markus Glaser, and Richard Heigl. *Wiki: Web Collaboration*. Berlin: Springer, 2008. PDF.

Eldred, Michael. *The Digital Cast of Being: Metaphysics, Mathematics, Cartesianism, Cybernetics, Capitalism, Communication*. Heusenstamm: Ontos Verl., 2009. Print.

Engels, Friedrich. *The Origin of the Family, Private Property and the State*. London: Penguin, 1986. Print.

Evans, Thomas L., and Patrick T. Daly, eds. *Digital Archaeology: Bridging Method and Theory*. London: Routledge, 2006. Print.

Feather, J. *Publishing, Piracy and Politics: An Historical Study of Copyright in Britain*. London: Mansell, 1994. Print.

Fish, Stanley. Is *There a Text in This Class?: The Authority of Interpretive Communities*. Cambridge, MA: Harvard UP, 2003. Print.

Fisher, Eran. *Media and New Capitalism in the Digital Age: The Spirit of Networks*. Basingstoke: Palgrave Macmillan, 2013. Print.

FISON, LORIMER. KAMILAROI AND KURNAI: *Group-marriage and Relationship, and Marriage by Elopement*. S.l.: FORGOTTEN, 2015. Print.

Flusser, Vilém. *Does Writing Have a Future?* Minneapolis, MN: U of Minnesota, 2011. Print.

Foray, Dominique. *Economics of Knowledge*. Cambridge: MIT, 2006. Print.

Foucault, Michel, and Duccio Trombadori. *Remarks on Marx: Conversations with Duccio Trombadori*. Trans. Roy J. Goldstein and James Cascaito. New York: Autonomedia, 1991. Print.

Foucault, Michel. *The Archaeology of Knowledge: Michel Foucault*. London: Tavistock Publications, 1972. Print.

Galloway, Alexander R. *Protocol: How Control Exists after Decentralization*. Cambridge, MA: MIT, 2004. Print.

Gardiner, Eileen, and Ronald G. Musto. *The Digital Humanities: A Primer for Students and Scholars*. New York, NY: Cambridge UP, 2015. Print.

Gardiner. *The Digital Humanities*. N.p.: Cambridge UP, 2015. Print.

Garnett, Robert F., ed. *What Do Economists Know?: New Economics of Knowledge*. London: Routledge, 2003. Print.

Gärtner, Thomas. *Kernels for Structured Data*. Singapore: World Scientific Pub., 2008. Print.

Gellner, Ernest. *Who Says This?: The Authority of the Author, the Discourse, and the Reader*. London: Routledge & Kegan Paul, 1979. PDF.

Ghosh, Rishab Aiyer. *CODE: Collaborative Ownership and the Digital Economy*. New Delhi: Viva, 2006. Print.

Gibson, William. *Neuromancer*. London: Gollancz, 2016. Print.

Godwin, Mike. *Cyber Rights: Defending Free Speech in the Digital Age*. N.p.: MIT, 2003. Print. Revised and Updated Edition

Habermas, Jürgen. *Knowledge and Human Interests*. Boston: Beacon, 2002. Print.

Hall, Gary. Digitize *This Book!: The Politics of New Media, or Why We Need Open Access Now*. Minneapolis: U of Minnesota, 2008. Print.

Hardin, Russell. How Do You Know?: *The Economics of Ordinary Knowledge*. Princeton, NJ: Princeton UP, 2014. Print.

Hardt, Michael, and Antonio Negri. *Commonwealth*. Cambridge, MA: Belknap of Harvard UP, 2011. Print.

Hardt, Michael, and Antonio Negri. *Empire*. London: Harvard UP, 2000. Print.

Hardt, Michael, and Antonio Negri. *Multitude: War and Democracy in the Age of Empire*. New York: Penguin, 2009. Print.

Haunss, Sebastian, and Kenneth C. Shadlen, eds. Politics of Intellectual Property: *Contestation over the Ownership, Use, and Control of Knowledge and Information*. Cheltenham, UK: Edward Elgar, 2011. Print.

Hayles, N. Katherine. *Chaos and Order: Complex Dynamics in Literature and Science*. Chicago: U of Chicago, 1991. Print.

Herrington, Tyanna K. *Controlling Voices: Intellectual Property, Humanistic Studies, and the Internet*. Carbondale: Southern Illinois UP, 2001. Print. Foreword by Jay David Bolter

Hoppe, Hans-Hermann. *Economics and Ethics of Private Property: Studies in Political Economy and Philosophy*. Alabama: Springer, 2012. Print. Second Edition

Hutton, Sarah, and Paul Schuurman, eds. *Studies on Locke: Sources, Contemporaries, and Legacy*: In Honour of G.A.J. Rogers. Dordrecht: Springer, 2008. Print. In Honour of Graham Alan John Rogers

Jauss, Hans Robert, Timothy Bahti, and Paul De Man. *Toward an Aesthetic of Reception*. Minneapolis, MN: U of Minnesota, 1982. Print.

Jenkins, Henry, Ravi Purushotma, Margaret Weigel, Katie Clinton, and Alice J. Robison. *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Cambridge, MA: MIT, 2009. Print.

Kearney, Mary Celeste, and Michael Kackman. *The Craft of Criticism: Critical Media Studies in Practice*. New York ; London: Routledge, 2018. Print.

Kelly, T. Mills. *Teaching History in the Digital Age*. Ann Arbor: U of Michigan, 2014. Print.

Kiel, L. Douglas., and Euel Elliott, eds. *Chaos Theory in the Social Sciences: Foundations and Applications*. Ann Arbor, MI: U of Michigan, 2004. Print.

Klein, Lauren F. *Debates in the Digital Humanities* 2016. Ed. Matthew K. Gold. Minneapolis, MN: U of Minnesota, 2016. PDF.

Kothari, C. R. *Research Methodology: Methods and Techniques*. New Delhi: New Age International (P) Limited, 2004. Print.

Kumar, Lisa. Something about the Author. Vol. 206. Farmington Hills, MI: Gale, a Cengage, 2017. PDF.

Lee, Francis L. F. *Frontiers in New Media Research*. New York: Routledge, 2013. Print.

Leibniz, Gottfried Wilhelm, and George R. Montgomery. *Leibniz. La Salle*, IL: Open Court Pub., 1980. Print.

Letwin, Oliver. *Ethics Emotion and the Unity of the Self* (Routledge Revivals). N.p.: n.p., 2010. Print.

Lima, Iara Vigo De. *Foucault's Archaeology of Political Economy*. Houndsmill, Basinstoke, Hampshire: Palgrave Macmillan, 2010. Print.

Littleton, Sir Thomas. *Littleton's Tenures*. N.p.: Classics US, 2013. Print.

Liu, Alan. *The Laws of Cool: Knowledge Work and the Culture of Information*. Chicago: U of Chicago, 2016. Print.

Lloyd, Dr Moya, Prof. Alan Finlayson, Vincent Geoghegan, Michael Kenny, Iain M. MacKenzie, and Rick Wilford. *Political Ideologies: An Introduction*. Florence: Taylor and Francis, 2014. PDF. Third Edition

Locke, John. *Two Treatises of Government, and; A Letter concerning Toleration*. Ed. Ian Shapiro. Comp. John Dunn, Ruth W. Grant, and Ian Shapiro. New Haven, CT: Yale UP, 2004. Print.

Loewenstein, Joseph. *The Author's Due: Printing and the Prehistory of Copyright*. Chicago: U of Chicago, 2002. Print.

Lorenz, Edward N. *The Essence of Chaos*. Seattle: U of Washington, 1993. Print.

Lovejoy, Margot. *Digital Currents: Art in the Electronic Age*. New York: Routledge, 2009. Print.

Machlup, Fritz. *The Production and Distribution of Knowledge in the United States*. Princeton, NJ: Princeton UP, 1962. Print.

Macpherson, C. B., and Frank Cunningham. *The Political Theory of Possessive Individualism: Hobbes to Locke*. Don Mills, Ont.: Oxford UP, 2011. Print.

Martin, Julian. *Francis Bacon, the State and the Reform of Natural Philosophy*. Cambridge: Cambridge UP, 2007. Print.

Marx, Karl, and Friedrich Engels. *The Communist Manifesto: Karl Marx and Friedrich Engels. With Selections from the Eighteenth Brumaire of Louis Bonaparte and Capital*. Ed. Samuel H. Beer. Illinois: AHM Corporation, 1955. Print.

Marx, Karl, and Friedrich Engels. *The German Ideology. with Selections from Parts Two and Three, Together with Marxs "Introduction to a Critique of Political Economy."* Trans. C. J. Arthur. New York: International, 2016. Print.

Marx, Karl. *Capital: A Critique of Political Economy*. Vol. 1. Trans. David Fernbach. London: Penguin in Association with New Left Review, 1992. Print.

Marx, Karl. *Capital: A Critique of Political Economy*. Vol. 2. Trans. David Fernbach. London: Penguin in Association with New Left Review, 1992. Print.

Marx, Karl. *Capital: A Critique of Political Economy*. Vol. 3. Trans. David Fernbach. London: Penguin in Association with New Left Review, 1992. Print.

Matrix, Sidney Eve. Cyberpop: *Digital Lifestyles and Commodity Culture*. Florence: Taylor and Francis, 2013. Print.

McGann, Jerome, ed. *Online Humanities Scholarship: The Shape of Things to Come*. Houston: Rice UP, 2011. PDF.

Mclennan, John Ferguson. *Primitive Marriage*. N.p.: Classics US, 2013. Print.

Media Policy for the Digital Age. Amsterdam: Amsterdam UP, 2011. Print. WRR: Scientific Council for Government Policy

Menezes, Alison Ribeiro De. *Juan Goytisolo: The Author as Dissident*. Woodbridge: Tamesis, 2005. Print.

Miller, Carolyn Handler. *Digital Storytelling: A Creator's Guide to Interactive Entertainment.* Burlington, MA: Focal, Elsevier, 2004. PDF.

Miller, Lisa C., and Linda Rief. *Make Me a Story: Teaching Writing through Digital Storytelling*. Portland, Me.: Stenhouse, 2010. Print.

Montfort, Nick, Patsy Boudoin, John Bell, Ian Bogost, Jeremy Douglass, Mark C. Marino, Michael Mateass, Casey Reas, Mark Sample, and Noah Vawter. *10 PRINT CHR$(205.5 RND(1)) GOTO 10*. Cambridge: MIT, 2014. Print.

Morgan, Lewis Henry. *Ancient Society or Researches in the Lines of Human Progress from Savagery through Barbarism to Civilization*. Ed. Leslie Alvin. White. Cambridge, MA: Belknap of Harvard UP, 1964. Print.

Morlino, Leonardo, Dirk Berg-Schlosser, and Bertrand Badie. *Political Science: A Global Perspective. Los Angeles*, CA: SAGE, 2017. Print.

Mouton, J., and H. C. Marais. *Basic Concepts in the Methodology of the Social Sciences*. Pretoria: Human Sciences Research Council, 1996. Print.

Murray, Andrew, and Mathias Klang. *Human Rights in the Digital Age*. N.p.: Routledge-Cavendish, 2016. Print.

Myers, Greg. *Discourse of Blogs and Wikis*. United Kingdom: Continuum International, 2011. Print.

Neef, Dale, Gerald Anthony Siesfeld, and Jacquelyn Cefola. *The Economic Impact of Knowledge*. London: Routledge Taylor & Francis Group, 2016. Print. Resources for the Knowledge-Based Economy

Negroponte, Nicholas. *Being Digital*. Kent: Hodder and Stoughton, 1995. Print.

O' Connell, Shaun. Boston: *Voices and Visions*. Amherst: U of Massachusetts, 2010. Print.

Palmer, Humphrey. *Analogy. A Study of Qualification and Argument in Theology*. (London): n.p., 1973. Print.

Parker, Jo Alyson. Narrative *Form and Chaos Theory in Sterne, Proust, Woolf, and Faulkner*. Np.: Palgrave Macmillan, 2015. Print.

Rand, Ayn. Capitalism: *The Unknown Ideal*. Ed. Nathaniel Branden, Alan Greenspan, and Robert Hessen. New York: Signet, 2008. Print.

Rescher, Nicholas. *Cognitive Economy: The Economic Dimension of the Theory of Knowledge*. Pittsburgh: U of Pittsburgh, 1989. Print.

Ricardo, Francisco J., ed. *Cyberculture and New Media*. Amsterdam: Rodopi, 2009. Print.

Rigaud, Jacques. *Libre Culture*. Paris: Gallimard, 1990. Print.

Ringmar, Erik. *"I'm Blogging This": Free Speech and Censorship in the Age of the Internet*. New York: Anthem, 2007. Print.

Ringmar, Erik. A Bloggers Manifesto: Free Speech and Censorship in the Age of the Internet. London: Anthem, 2007. Print.

Ropolyi, László. *Philosophy of the Internet: A Discourse on the Nature of the Internet*. Budapest: Typotex, 2013. Print. Translated by Zoltán Wágner

Rothbard, Murray N. *Making Economic Sense*. Auburn, Ala.: Ludwig Von Mises Institute, 2006. Print.

Schiller, Dan. *Digital Capitalism: Networking the Global Market System*. Cambridge, Mass: MIT, 2000. Print.

Schreibman, Susan, Raymond George Siemens, and John Unsworth, eds. *A Companion to Digital Humanities*. Malden, MA: Blackwell Pub., 2008. Print.

Schreibman, Susan, Raymond George Siemens, and John Unsworth. *A New Companion to Digital Humanities*. Chichester, UK: Wiley Blackwell, 2016. Print.

Sell, Susan K. *Private Power, Public Law: The Globalization of Intellectual Property Rights*. Cambridge, U.K.: Cambridge UP, 2005. Print. Cambridge Studies in International Relations

Shaffer, Butler D. *Boundaries of Order: Private Property as a Social System*. Auburn, Ala.: Ludwig Von Mises Institute, 2009. Print.

Shillingsburg, Peter L. *From Gutenberg to Google: Electronic Representations of Literary Texts*. Cambridge, UK: Cambridge Universitety, 2014. Print.

Smith, Adam, and Anthony Kelbrook. *Adam Smith*. London: Parma, 1998. Print.

Stallman, Richard. *Free Software Free Society: Selected Essays of Richard M. Stallman*. Boston, MA: Free Software Foundation, 2015. Print. Foreword by Lawrence Lessig

Stam, Cornelius R. The Author's Choice of His Own Writings. Wisconsin: Berean Literature Foundation, 1990. Print.

Stone, Marjorie, and Judith Thompson. *Literary Couplings: Writing Couples, Collaborators, and the Construction of Authorship*. N.p.: Univ of Wisconsin Pr, 2007. Print.

Tapscott, Don, Alex Lowy, and David Ticoll. *Digital Capital: Harnessing the Power of Business Webs*. London: Brealey, 2001. Print.

Teehan, Kay. *Wikis: The Educator's Power Tool*. California: Linworth, 2010. Print.

Toffler, Alvin. *The Adaptive Corporation: Alvin Toffler*. New York: McGraw-Hill, 1985. Print.

Turner, Frederick C. *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network and the Rise of Digital Utopianism*. Chicago; London: n.p., 2006. PDF.

Turow, Joseph, and Lokman Tsui, eds. *The Hyperlinked Society: Questioning Connections in the Digital Age*. Ann Arbor: U of Michigan, 2011. Print.

Warnick, Barbara, and David Heineman. *Rhetoric Online: The Politics of New Media*. New York: Peter Lang, 2012. Print.

Warwick, Claire, Melissa M. Terras, and Julianne Nyhan, eds. *Digital Humanities in Practice*. London: Facet, 2012. Print.

Watson, John Forbes. *The People of India: A Series of Photographic Illustrations, with Descriptive Letterpress of the Races and Tribes of Hindustan*. Bath: Pagoda Tree, 2007. Print.

Watson, Richard. *Future Minds: How the Digital Age Is Changing Our Minds, Why This Matters, and What We Can Do about It*. London: Nicholas Brealey, 2011. Print.

West, James A., and Margaret L. West. *Using Wikis for Online Collaboration: The Power of the Read-write Web*. San Francisco, CA: Jossey-Bass, 2009. Print.

Westermarck, Edward. *The History of Human Marriage: In Three Volumes*. Vol. 1. London: Macmillan, 1925. Print.

Wherry, Timothy Lee. *The Librarian's Guide to Intellectual Property in the Digital Age: Patents, Copyrights, and Trademarks*. Chicago: American Library Association, 2002. Print.

Whitman, John. *24 Declassified: Chaos Theory*. New York: HarperCollins E-, 2009. PDF.

Wiener, Norbert. *Cybernetics: Control and Communication in the Animal and the Machine*. New York: Wiley, 1948. Print.

Wiseman, Yair, and Song Jiang. *Advanced Operating Systems and Kernel Applications: Techniques and Technologies*. Hershey, PA: IGI Global, 2010. PDF. Premier Reference Source

Woodmansee, Martha. *The Author, Art, and the Market: Rereading the History of Aesthetics*. New York: Series of Columbia UP, 1994. Print.

Zimbalist, Andrew, ed. Comparative Economic Systems: An Assessment of Knowledge, Theory and Method. Boston: Kluwer Nijhoff, 1984. PDF.

Žižek, Slavoj, ed. *Mapping Ideology*. London: Verso, 2012. Print.

Articles:

Allen, Colin, and InPho Group. "Cross-Cutting Categorization Schemes in the Digital Humanities." *Isis* 104.3 (2013): 573-83. Web. 9 Dec. 2013.

Amerika, Mark. "Expanding the Concept of Writing: Notes on Net Art, Digital Narrative and Viral Ethics." *Leonardo* 37.1 (2004): 9-14. Web. 16 Sept. 2015.

Anderson, Sheila, Tobias Blanke, and Stuart Dunn. "Methodological Commons: Arts and Humanities E-Science Fundamentals." *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 368.1925 (2010): 3779-796. Web. 15 June 2013.

Benthall, Jonathan. "The Critique of Intellectual Property." *Anthropology Today* 15.6 (1999): 1-3. Web. 4 July 2014.

Birke, Dorothee, and Birte Christ. "Paratext and Digitized Narrative: Mapping the Field." *Narrative* January 2013 21.1 (n.d.): 65-87. Web. 4 May 2014.

Bolton, G. "Boundaries of Humanities: Writing Medical Humanities." *Arts and Humanities in Higher Education* 7.2 (2008): 131-48. Web. Feb.-Mar. 2015.

Ciccoricco, David. "Focalization and Digital Fiction." *Narrative* 20.3 (2012): 255-76. Web. 23 Mar. 2016.

Coleman, Sarah, and Nick Dyer-Witheford. "Playing on the Digital Commons: Collectivities, Capital and Contestation in Videogame Culture." *Media, Culture & Society* 29.6 (2007): 934-53. Web. 24 July 2017.

Collins, Jim. "The Use Values of Narrativity in Digital Cultures." New Literary History 44.4 (2013): 639-60. Web. 22 Sept. 2015.

Diakopoulos, Nicholas, Kurt Luther, Yevgeniy "Eugene" Medynskiy, and Irfan Essa. "The Evolution of Authorship in a Remix Society." *Proceedings of the 18th Conference on Hypertext and Hypermedia - HT 07* (2007): n. pag. Web. 14 Oct. 2013.

Dumbauld, Edward, and Bruce W. Bugbee. "Genesis of American Patent and Copyright Law." *The American Historical Review* 73.4 (1968): 1232. Web. 4 Aug. 2017.

Escobar, Arturo, David Hess, Isabel Licha, Will Sibley, Marilyn Strathern, and Judith Sutz. "Welcome to Cyberia: Notes on the Anthropology of Cyberculture [and Comments and Reply]." *Current Anthropology* 35.3 (1994): 211-31. Web. 5 Apr. 2015.

Farber, Daniel A., and Brett Mcdonnell. "Is There a Text in This Class? The Conflict Between Textualism and Antitrust." *SSRN Electronic Journal* Contemp. Legal Issues 619 (2004) (2004): n. pag. Web. 1 Jan. 2014.

Guerlac, Suzanne. "Humanities 2.0: E-Learning in the Digital World." *Representations* The Humanities and the Crisis of The Public University (Fall 2011) 116.1 (n.d.): 102-27. Web. 9 Dec. 2014.

Heffan, Ira V. "Copyleft: Licensing Collaborative Works in the Digital Age." *Stanford Law Review* 49.6 (1997): 1487-521. Web. 7 Nov. 2015.

Heuser, Ryan, and Long Le-Khac. "Learning to Read Data: Bringing out the Humanistic in the Digital Humanities." *Victorian Studies* 54.1 (2011): 79-86. Web. 9 Dec. 2016.

Hopkins, Candice. "Making Things Our Own: The Indigenous Aesthetic in Digital Storytelling." *Leonardo* 39.4 (2006): 341-44. Web. 16 Aug. 2016.

Huff, C., D.g. Johnson, and K. Miller. "Virtual Harms and Virtual Responsibility: A Rape in Cyberspace." *IEEE 2002 International Symposium on Technology and Society (ISTAS02). Social Implications of Information and Communication Technology. Proceedings (Cat. No.02CH37293)* (2002): n. pag. Web. 21 May 2016.

Kumar, K. G. "Beyond the Market, Freedom Matters." *Economic & Political Weekly* Sep. 8-14, 2001 36.36 (n.d.): 3435-439. Web. 4 July 2012.

Laerhoven, Frank Van, and Elinor Ostrom. "Traditions and Trends in the Study of the Commons." *International Journal of the Commons* 1.1 (2007): 3. Web. 15 May 2017.

Liang, Lawrence. "Copyright, Cultural Production and Open-Content Licensing." *The Indian Journal of Law and Technology* 1 (2005): 96-157. Web. 23 Feb. 2016.

Light, Jennifer S. "When Computers Were Women." *Technology and Culture* 40.3 (July 1999): 455-83. Web. 3 Nov. 2017.

Liou, Hsien-Chin, and Shiu-Lin Lee. "How Wiki-Based Writing Influences College Students' Collaborative and Individual Composing Products, Processes, and Learners' Perceptions." *International Journal of Computer-Assisted Language Learning and Teaching* 1.1 (2011): 45-61. Web. 23 Sept. 2014.

Liu, Alan. "Globalizing the Humanities: 'The Voice of the Shuttle: Web Page for Humanities Research.'" *Humanities Collections* 1.1 (1996): 41-56. Web. 12 July 2016.

Machado, José A. F., and José Mata. "Box-Cox Quantile Regression and the Distribution of Firm Sizes." *Journal of Applied Econometrics* (May - Jun., 2000) 15.3 (2000): 253-74. Web. 4 July 2012.

Patterson, Chip. "Copyright Misuse and Modified Copyleft: New Solutions to the Challenges of Internet Standardization." *Michigan Law Review* 98.5 (2000): 1351-383. Web. 4 July 2012.

Racine, J. "The Cygwin Tools: A GNU Toolkit for Windows." *Journal of Applied Econometrics* 15.3 (2000): 331-41. Web. 5 Jan. 2015.

Raper, Kellie Curry, and Corinna M. Noelke. "Determining Market Power Exertion between Buyers and Sellers: Are Nonparametrics a Viable Alternative?" *Applied Economics* 36.20 (2004): 2265-274. Web. 30 Sept. 2015.

Raper, Kellie Curry, H. Alan Love, and C. Richard Shumway. "Determining Market Power Exertion between Buyers and Sellers." *Journal of Applied Econometrics* 15.3 (2000): 225-52. Web. 4 July 2012.

Ryan, Marie Laure. "Beyond Myth and Metaphor: Narrative in Digital Media." *Poetics Today* 23.4 (2002): 581-609. *Duke University Press*. Web. 4 Apr. 2014.

Scholes, Robert, and Clifford Wulfman. "Humanities Computing and Digital Humanities." *The Changing University And The Humanities* Fall 2008 73.4 (n.d.): 50-66. *South Atlantic Review*. Web. 9 Dec. 2013.

Svensson, Patrik. "Big Digital Humanities: Imagining a Meeting Place for the Humanities and the Digital." (2016): n. pag. Web. 12 Nov. 2015.

Viégas, Fernanda B., Martin Wattenberg, and Kushal Dave. "Studying Cooperation and Conflict between Authors with History Flow Visualizations." *Proceedings of the 2004 Conference on Human Factors in Computing Systems - CHI 04* (2004): n. pag. Web. 14 Nov. 2017.

Websites:

"FoldingStory | The Group Storytelling Game." Folding Story. N.p., n.d. Web. 4 Oct. 2018.

"Main Page." Violin Sonata No.1, Op.78 (Brahms, Johannes) - IMSLP/Petrucci Music Library: Free Public Domain Sheet Music. N.p., n.d. Web. 05 Oct. 2018.

"Sherman Antitrust Act of 1890." *Wikipedia*. Wikimedia Foundation, 09 Sept. 2018. Web. 06 Oct. 2018.

Foucault, Michel. "What Is an Author?" *Collège De France*. Web. 6 Oct. 2016.

"Horizons of Expectation." *Wikipedia*. Wikimedia Foundation, 28 Aug. 2018. Web. 06 Oct. 2018.

Marx, Karl. "1956." Modern History of the Arab Countries by Vladimir Borisovich Lutsky 1969. N.p., n.d. Web. 07 Oct. 2018.

"Subpoena Ad Testificandum." *Wikipedia*. Wikimedia Foundation, 19 Aug. 2018. Web. 07 Oct. 2018.

"Scratch - Catapedia." Scratch - Imagine, Program, Share. N.p., n.d. Web. 05 Oct. 2018.

"Storymash.com - Collaborative Creative Writing Community - StoryMash." *Znwhois.com*. N.p., n.d. Web. 05 Oct. 2018.

"Tolkien Gateway." Heir of Isildur - Tolkien Gateway. N.p., n.d. Web. 05 Oct. 2018.

"Unlike Most of the Movie Industry, All of Our Sequels Rock." Ficly - A Better, Shorter Story. N.p., n.d. Web. 05 Oct. 2018.

"Main Page." Wikipedia. Wikimedia Foundation, 26 June 2018. Web. 05 Oct. 2018.

"Amalfi." *Wikipedia*. Wikimedia Foundation, 05 Sept. 2018. Web. 07 Oct. 2018.

"Intellectual Property." *Wikipedia*. Wikimedia Foundation, 04 Oct. 2018. Web. 07 Oct. 2018.

"About Collabowriters." *Collabowriters™*. N.p., n.d. Web. 05 Oct. 2018.

"Main Page." Ballotpedia. N.p., n.d. Web. 05 Oct. 2018.

"One Million Monkeys Typing." Wikibin.org. N.p., n.d. Web. 05 Oct. 2018.

"Bliki: CodeOwnership." News. N.p., n.d. Web. 06 Oct. 2018.

"Wanton." *The Free Dictionary*. Farlex, n.d. Web. 07 Oct. 2018.

"CPDL ID." Oddi Altarpiece - Wikidata. N.p., n.d. Web. 05 Oct. 2018.

Bahgat, Alessandro. "Novlet." Alessandro Bahgat. N.p., 09 Oct. 2008. Web. 05 Oct. 2018.

Miscellaneous (Includes Theses, Government Acts, Statutes, Project Drafts, Manifestoes, Handbooks, etc.):

"A Quote from Between Two Ages." *Goodreads*. Goodreads, n.d. Web. 07 Oct. 2018.

"The Digital Humanities Manifesto 2.0." N.p., n.d. Web. 5 Oct. 2018.

Dennis, Michael Aaron. "Wiki." *Encyclopædia Britannica*. Encyclopædia Britannica, Inc., 01 Aug. 2018. Web. 06 Oct. 2018. (Dennis 2018)

English Statute of Monopolies of 1623, Pub. L. No. 21 Jac. 1, C. 3, § The Original Source of the Anglo-American Patent Law (1623). Print. An Act concerning Monopolies and Dispensations with Penal Laws, and the Forfeitures thereof

Godin, Benoit. *The Knowledge Economy: Fritz Machlup's Construction of a Synthetic Concept*. N.p., 2008. Web. 30 Apr. 2015. Project on the History and Sociology of S&T Statistics, Working Paper No. 37

Hernandez, Andres Monroy. *Designing for Remixing: Supporting an Online Community of Amateur Creators*. Thesis. Thesis / Dissertation ETD, 2013. N.p.: n.p., n.d. Print. This work is licensed under a Creative Commons Attribution 3.0 Unported License.

Humanist Manifesto. Mexico: n.p., 1962. Print.

India. Govt. of India. INDIAN COPYRIGHT ACT, 1957. N.p.: n.p., 4th June, 1957. Print. 35A. . Subs. by Act 49 of 1999, Section 2, for databasis (wef 15.1.2000)

ONO/MP. "A Science Fiction Galaxy That Anyone Can Edit." Explore the Online Galaxy. N.p., n.d. Web. 05 Oct. 2018.

UCL Centre for Digital Humanities. *Students' Handbook 2013-2014*. 23 Sept. 2013. Part 2 A guide for students taking the MA/MSc Postgraduate Diploma Postgraduate Certificate in Digital Humanities. Department of Information Studies, University College, London.