

"Surveillance capitalism unilaterally claims human experience as free raw material for translation into behavioral data. Although some of these data are applied to product or service improvement, the rest are declared as a proprietary behavioral surplus, fed into advanced manufacturing processes known as "machine intelligence," and fabricated into prediction products that anticipate what you will do now, soon, and later: Finally, these prediction products are traded in a new kind of marketplace for behavioral predictions that I call behavioral futures markets. Surveillance capitalists have grown immensely wealthy from these trading operations, for many companies are eager to lay bets on our future behavior:

(...) the competitive dynamics of these new markets drive surveillance capitalists to acquire ever-more-predictive sources of behavioral surplus: our voices, personalities, and emotions. Eventually, surveillance capitalists discovered that the most-predictive behavioral data come from intensifying in the state of play in order to nudge, coax, tune, and herd behavior toward profitable outcomes.

Competitive pressures produced this shift, in which automated machine processes not only know our behavior but also shape our behavior at scale. With this reorientation from knowledge to power, it is no longer enough to automate information flows about us; the goal now is to automate us. In this phase of surveillance capitalism's evolution, the means of production are subordinated to an increasingly complex and comprehensive "means of behavioral modification." In this way, surveillance capitalism births a new species of power that I call instrumentarianism. Instrumentarian power knows and shapes human behavior toward others' ends. Instead of armaments and armies, it works its will through the automated medium of an increasingly ubiquitous computational architecture of "smart" networked devices, things, and spaces." [1]

[1] Zuboff Shoshana (2019). "The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power". Profile Books Ltd.

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The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power
by Shoshana Zuboff and the diagram
New Extractivism by Václav Jílek.

Unpacking Surveillance Capitalism: An Exploratory Lexicon

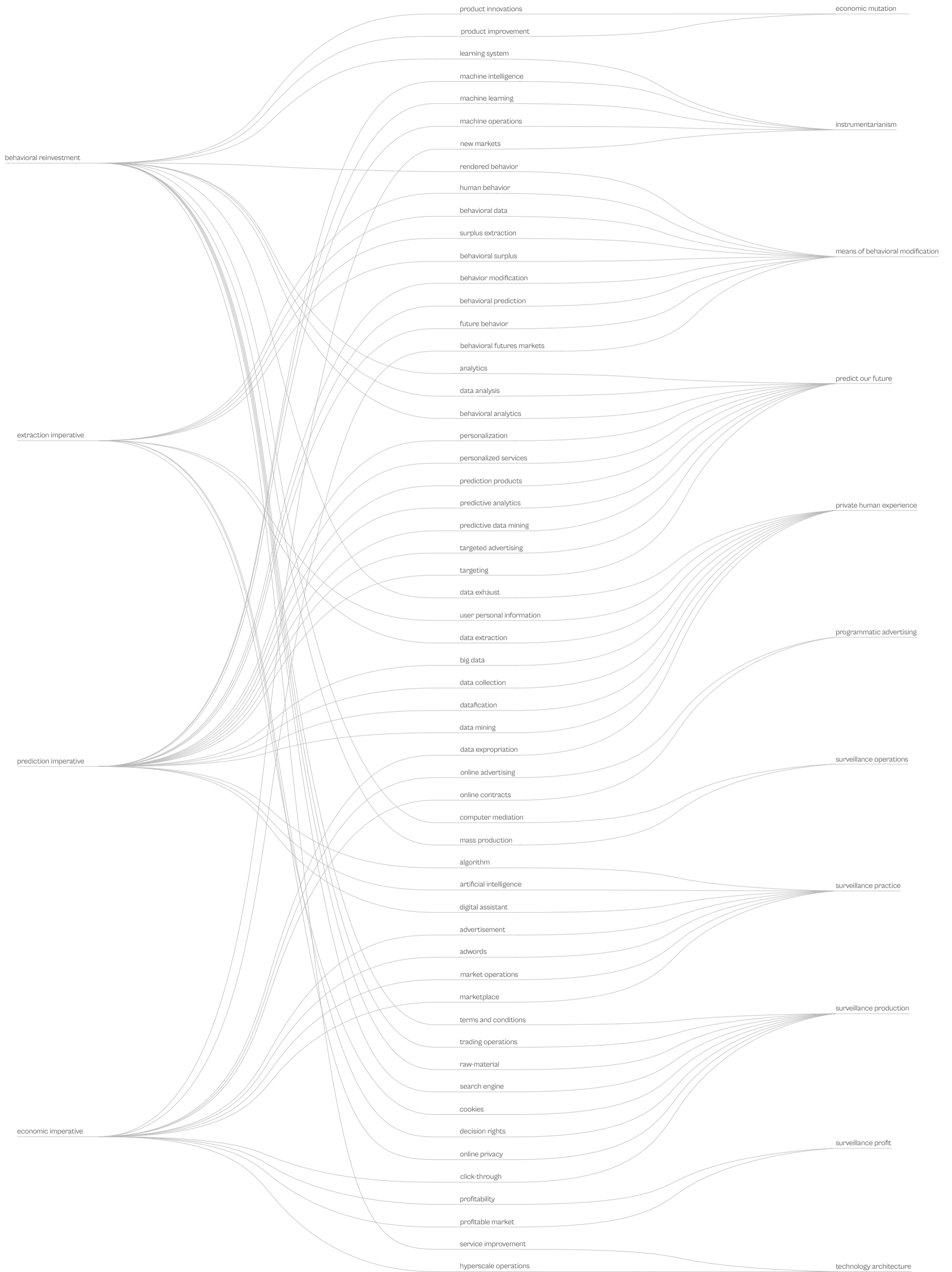
Surveillance capitalism describes a form of capitalism based on the profit made from the monetization of users' personal data extracted through technological means. The concept, as described by Shoshana Zuboff, emerges as large technology companies foresee the possibilities of using personal data to target and manipulate consumers, with significant implications for user privacy and societal control.

Today unwittingly and unknowingly, users of online services provide countless pieces of information about themselves that can be inferred from their clicks, browsing, likes, shares, among other online and offline activities, whether through the use of a search engine or a social network. This data is extracted in its raw form and needs to be refined for a certain purpose, such as making behavioral predictions that become particularly profitable when sold to interested parties. As such, privacy disappears, leaving users vulnerable to manipulation and control.

Unpacking Surveillance Capitalism seeks to promote literacy about this phenomenon through the development of an exploratory lexicon based on the analysis of Shoshana Zuboff's "The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power". The lexicon is presented in a dynamic diagrammatic structure that allows for the exploration of terms and their definitions, through fluid links between keywords or according to a fixed, hierarchical structure.

With this approach, the project seeks to highlight the main imperatives of surveillance capitalism, informing about the different phases of personal data extraction and its monetization, while making users aware of the main implications of this form of capitalism.

Access the project link online with interactive diagram (<https://2022fbau-dcmmpj/monica-faustino/unpacking-surveillance-capitalism/index.html>).



behavioral reinvestment.
the behavioral value reinvestment cycle is when all behavioral data are reinvested in the improvement of the product or service.

extraction imperative.
is the endless quest to acquire increasingly predictive sources of behavioral surplus to maximize profit and market dominance.

prediction imperative.
is the need to be able to predict human behavior. It is this imperative that pushes surveillance capitalists to supplement the economy of scale with the economies of scope and of action.

economic imperative.
is a set of principles that guide organizations in changing their work ethics and cultural values as times change. An imperative is a command that is in the form of a verb. It is a request of something that is important and urgent. Imperatives are used by people with authority over others to demand rules be followed.

advertisement.
is the promotion of a product, brand or service to a viewership in order to attract interest, engagement and sales. Advertisements come in many forms, from copy to interactive video, are the guaranteed method of reaching an audience.

adwords.
is one of the services advertisers use for online promotion of their content, brand, website, etc through certain defined keywords to achieve traffic or leads. It is a form of brief advertising copy with keywords that are displayed on Google web pages and partner websites after matching their content with the keywords.

analytics.
as an example, Google Analytics is a web analytics service offered by Google that tracks and reports website traffic, currently as a platform inside the Google Marketing Platform brand.

algorithm.
is a finite sequence of well-defined instructions, typically used to solve a class of specific problems or to perform a computation.

artificial intelligence.
the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.

behavioral analytics.
examines the "what's" and "how's" of customer behavioral data to inform the "whys" of customer behavior. This can include tracking page views, email sign-ups, or other important actions like registration.

behavioral data.
data that describes the observed actions of users or customers, gives you real insights into how people are or will potentially use your product.

behavioral futures markets.
prediction products are then traded in behavioral futures markets, where surveillance capitalists sell certainty to their business customers.

behavior modification.
is a treatment approach that replaces undesirable behaviors with more desirable ones by using the principles of respondent and operant conditioning.

behavioral prediction.
is at the root of many industries. The more keenly we understand and respond to the intentions to act that consumers indicate, the more successful businesses will be.

behavioral surplus.
is data that goes beyond online product and service use. It can include information related to a person's location, age, profession, lifestyle, habits, and a range of personal and professional preferences.

big data.
is data that contains greater variety, arriving in increasing volumes and with more velocity. These data sets are so voluminous that traditional data processing software just can't manage them.

click-through.
is the ratio of users who click on a specific link to the number of total users who view a page, email, or advertisement. It is commonly used to measure the success of an online advertising campaign for a particular website.

cookies.
are small files that websites send to your device that the sites then use to monitor you and remember certain information about you. Cookies let websites remember you, your website logins, shopping carts and more.

computer mediation.
is defined as any human communication that occurs through the use of two or more electronic devices. May be text, audio, graphics, or video based and occur synchronously (in "real time") or asynchronously (delayed).

data analysis.
is the process of systematically applying statistical and logical techniques to describe and illustrate, condense and recap, and evaluate data.

data caches.
is a hardware or software component that stores data so that future requests for that data can be served faster; the data stored in a cache might be the result of an earlier computation or a copy of data stored elsewhere.

data collection.
is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques.

data exhaust.
is the data generated as a byproduct of people's online actions and choices, consists of the various files generated by web browsers and their plug-ins such as cookies, log files and temporary internet files.

data expropriation.
is the act of a government claiming privately owned property against the wishes of the owners, ostensibly to be used for the benefit of the overall public.

data extraction.
is the act or process of retrieving data out of data sources for further data processing or data storage. The term data extraction is applied when data is first imported into a computer from primary sources, like measuring or recording devices.

datafication.
is a technological trend turning many aspects of our life into data which is subsequently transferred into information realized as a new form of value.

data mining.
is the process of finding anomalies, patterns and correlations within large data sets to predict outcomes. Using a broad range of techniques, you can use this information to increase revenues, cut costs, improve customer relationships, reduce risks and more.

decision rights.
help companies to organize their decision making and execution by setting clear roles and accountabilities and by giving all those involved a sense of ownership of decisions: when to provide input, who should follow through and what is beyond their scope.

digital assistant.
is an advanced computer program that simulates a conversation with the people who use it, typically over the internet, use advanced artificial intelligence (AI), natural language processing, natural language understanding, and machine learning to learn as they go and provide a personalized, conversational experience.

future behavior.
past performance can predict future behavior: however, it is not a fool-proof method. It can be a useful rule of thumb as long as it is used with all factors in mind.

human behavior.
refers to the way humans act and interact. It is based on and influenced by several factors, such as genetic make-up, culture and individual values and attitudes.

hyperscale operations.
is the ability of a technology architecture to improve and scale appropriately as more demand is added to the system. This includes the ability to provide and add more resources to the system that make up a bigger distributed computing network.

learning system.
is a system which provides: a compilation of data about resources for learning; a means for creating and storing learning resources; a means for access to learning resources.

machine intelligence.
is what's created when machines are programmed with some aspects of human intelligence, including learning, problem solving and prioritization.

machine learning.
is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.

machine operations.
make the sorting algorithm elements of a list in order. The most frequently used orders are numerical order and lexicographical order, and either ascending or descending.

market operations.
a process where the commodity for sale is your personal data, and the capture and production of this data relies on mass surveillance of the internet.

marketplace.
is a platform to sell products or services to a curated customer base. The operator of the marketplace does not own any inventory, their business is to present other people's inventory to a user and facilitate a transaction.

mass production.
is the manufacturing of large quantities of standardized products, often using assembly lines or automation technology.

new markets.
is a market where the end product or service is new - in other words there isn't really existing demand, but there could be.

online advertising.
is a form of marketing and advertising which uses the internet to promote products and services to audiences and platform users.

online contracts.
is a legal agreement that's been created, agreed and signed electronically, and is accessible on the internet via browser-based software.

online privacy.
involves the right or mandate of personal privacy concerning the storing, repurposing, provision to third parties, and displaying of information pertaining to oneself via Internet.

personalization.
is the act of tailoring an experience or communication based on information a company has learned about an individual.

personalized services.
is providing customer experiences that are tailored to the consumer's individual needs and preferences. Companies provide personalized service by documenting customer data and interactions, then leveraging that information to cater to the consumer.

prediction products.
is about selling predictions of our future behavior to future markets. Anticipate what you will do now, soon, and later.

predictive analytics.
is the use of data, statistical algorithms and machine learning techniques to identify the likelihood of future outcomes based on historical data.

predictive data mining.
is data mining that is done for the purpose of using business intelligence or other data to forecast or predict trends.

product improvement.
is the process of making meaningful product changes that result in new customers or increased benefits realized by existing customers.

product innovations.
is the creation and subsequent introduction of a good or service that is either new, or an improved version of previous goods or services.

profitability.
is a measurement of efficiency and ultimately its success or failure. Profitability is a business's ability to produce a return on an investment based on its resources in comparison with an alternative investment.

profitable market.
is a market for the business that over time yields revenue that exceeds, by an acceptable amount, the cost of attracting, selling and servicing the group of customers with which they trade within that market.

search engine.
is a software system that is designed to carry out web searches.

service improvement.
is a method to identify and execute opportunities to make the processes and services better; and to objectively measure the effects of these efforts over time. The improvements typically enhance customer experience, boost service quality, lower costs and make processes more effective and efficient.

surplus extraction.
is the amount of data left over an excess of production and supply.

targeted advertising.
is a form of advertising, including online advertising, that is directed towards an audience with certain traits, based on the product or person the advertiser is promoting.

targeting.
is the process through which an advertiser identifies its target audience and then advertises to them through a variety of channels.

terms and conditions.
are the legal agreements between a service provider and a person who wants to use that service. The person must agree to abide by the terms and conditions in order to use the offered service.

trading operations.
financial transactions at a brokerage, having to do with the execution of trades and keeping customer records.

raw material.
is a basic material that is used to produce goods, finished products, energy, or intermediate materials that are feedstock for future finished products.

rendered behavior.
is behaviour as rendered by data provided by users. It is the data about how users behave or act.

user personal information.
is any information related to an identifiable person. Basically is any information that relates to an identified or identifiable living individual. Different pieces of information, which collected together can lead to the identification of a particular person, also constitute personal data.

economic mutation.
is when occurs a change in the economics and everything change. A combination of old and new is reconfigured in an unprecedented pattern.

instrumentarianism.
Zuboff defines as the "instrumentation and instrumentalization of behavior for the purposes of modification, prediction, monetization, and control." Simply put, instrumentarianism is the power to monitor and manipulate what you can and can't see or experience online. According to Zuboff, this power is becoming an unprecedented and dangerous form of social control in the twenty-first century.

means of behavioral modification.
is the process of changing patterns of human behavior using various technological techniques. Can change the way we act, or react, by changing our opinion.

predict our future.
is a statement about a future event or data will happen in future. To predict is to say that an event or action will happen in the future, especially as a result of knowledge or experience.

private human experience.
is the complete experience a person has with a brand or service both digitally and physically. It represents the collective experiences that a person feels when dealing with any organization, be that as a customer, an employee, a patient or a citizen. Surveillance capitalism begins by unilaterally staking a claim to private human experience as free raw material for translation into behavioral data. Our lives are rendered as data flows.

programmatic advertising.
is a way to buy and sell advertising space to specific target audiences with the aid of computer decision-making. It has its greatest application on the internet, where multiple advertisers can dynamically compete, through a real-time bidding process, for the opportunity to show their ad each time a user accesses a website, or uses a mobile application.

surveillance capitalism.
claims human experience as raw material for translation into behavioral data. That data is partially used to improve the digital products or services, but most importantly it is declared proprietary behavioral surplus fed into machine intelligence manufacturing processes producing predictions products.

surveillance operations.
is the monitoring of behavior; many activities, or information for the purpose of information gathering, influencing, managing or directing. This can include observation from a distance by means of electronic equipment, such as closed-circuit television, or interception of electronically transmitted information like internet traffic.

surveillance practice.
the vast majority of computer surveillance practice involves the monitoring of data and traffic on the internet.

surveillance production.
include simple technical methods, such as human intelligence gathering and postal interception.

surveillance profit.
is a form of surveillance, a way to control us, and at the same time earn money with our data information.

technology architecture.
is a form of information technology architecture that is used to design computer systems. It involves the development of a technical blueprint with regard to the arrangement, interaction, and interdependence of all elements so that system-relevant requirements are met.