

Computer and Commerce: Relationship for The Future

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Abstract

The relationship between computers and commerce has evolved dramatically over the past few decades, transforming the way businesses operate and how consumers interact with markets. This synergy continues to grow and holds significant potential for the future. Computers, through advancements in artificial intelligence (AI), machine learning, cloud computing, and big data analytics, have revolutionized commerce by enhancing efficiency, improving decision-making, and fostering innovation. In the future, we can expect even deeper integration, where automated systems, driven by AI and predictive analytics, will personalize consumer experiences, streamline supply chains, and optimize business strategies. E-commerce platforms, supported by powerful computational systems, will continue to break down geographical and logistical barriers, providing consumers with tailored experiences and instant access to goods and services worldwide. Additionally, the use of blockchain technology will enhance transparency, security, and trust in digital transactions, reshaping financial systems and digital commerce. The future of this relationship is also marked by the potential of quantum computing, which could solve complex problems faster than traditional computers, leading to new opportunities in logistics, financial modeling, and personalized marketing strategies. As businesses and consumers become more reliant on digital infrastructure, the importance of cybersecurity will increase, with computers playing a central role in safeguarding sensitive data and ensuring secure transactions. Ultimately, the continued convergence of computers and commerce will create a dynamic, interconnected digital economy that promises both greater opportunities and challenges for businesses and consumers alike. The key to navigating this future will be innovation, adaptability, and the responsible use of emerging technologies.

Keywords: Artificial intelligence (AI), financial modeling emerging technologies, e-commerce, customer relationships, blockchain technology

INTRODUCTION

This is the electronic age the world has been reckoning on. This is the biggest time of change in social and commercial paradigms for 20 generations; so far. With the institutionalization of the EDIFACT with Message Standards, the creation of formal messages becomes possible. With the Map and the Definition, the necessary procedures are coded for individual machines. The commerce, of goods and services is conducted by trade participants who are defined by the Map. Implementors usually have RIN. The machines being implemented are most often those used in phone or power networks. Trade occurs through messages which are referred to as Line Names. From these, Line Development Tables

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are created, reconciling the UN standards with local protocols. End Users utilize vocabularies from the common discursual corpus. With this, the initial databanks are created, and the plasma begins to spread to the farthest appendages [1]. The procurement “White-paper” for errand-machines is attached. They serve as good illustrations for the procurement template. ‘The whole machinery for addressing complaints will cease to exist!’—“Adrastia, The Future”. The developmental environment, Adrastia, assumes familiarity with electronic commerce systems at the advanced

research level [2]. The concept of commerce is founded on its etymological roots as the common (com) trade of goods and services. Intra- is trade within, while Inter- is between lines. The situation of commerce in the rich information economy is unique. Industry players have the opportunity to develop commercial machine's lines from scratch and to develop shires in virtually bi-dimensional commerce-space. There is the usual status development: power lines and customer shires, but also the development of sale-bots and power lines, as well as the fabrication of neighborhood transfer gates and shantytown power lines [3].

HISTORICAL OVERVIEW OF COMPUTER AND COMMERCE

This study examines the relationship between computer and commerce and the predictors of the future relationship. Internet has significant relationship with commerce and computer. The relationship between commerce and the computer has an interesting history [4]. The first computer, named ENIAC, in human history was invented in the United States in 1945. In the early stage, computers were used for military applications. As computer key technology improved, the computers began to be used for business owing to their ability to process large amounts of data quickly. However, the large-scale computers of the time were not readily usable by commerce and were too expensive to be used by the small sector. For these reasons the computers were used only by government and large companies [5].

As computers came into use by commercial businesses, limitations arose in their ability to communicate with other computers. Due to that problem the idea of network amongst computers was proposed and later implemented. The network of communication amongst computers was named as the Internet [6]. This Internet facilitated businesses conducting trade over network involving companies such as American Online, CompuServe, and Prodigy in the United States. Instead of traditional brick and mortar business, the new businesses emerging using the Internet were called 'Internet commerce' or 'e-commerce' for short [7].

The Internet brought not only business changes but business methods. Thanks to the capabilities of e-commerce, any kind of product could be traded with potential clients all over the world. Internet businesses could differentiate from traditional businesses. With the use of homepages, new businesses could have information for consumers about their product and sale procedures, and could facilitate buying and selling among consumers. E-commerce is the most progressive field amongst the fast-growing Internet technology; thus, the Internet and commerce are closely linked to one another in future [8–13].

IMPACT OF COMPUTERS ON TRADITIONAL COMMERCE

Recent years have witnessed the explosive use of Internet. It offers several benefits both to consumers and companies in doing business. Studies show that the usage of e-commerce is increasing at a very high rate. At the same time, it is also found developed countries are including computers in almost all the fields without any hesitation, whether they are beneficial or not. The perceptions about the inferior quality and insecurity in delivering have diminished over time, when compared to the previous years when the transactions were more insecure [14–17]. Hence it is attempted to study about how the future relationship between computers and commerce can be, by looking into what are all the impacts of computers on traditional commerce, tools used and the general automation of computer commerce.

The traditional marketplace is no longer the primary source of goods and services. Businesses are finding the Internet preferable because of convenience in shopping, easy access to the broad range of goods, worldwide distribution and an opportunity for price comparison. Buying or selling goods or services using computer network, including online shopping, business-to-business transactions, and online auctions are called electronic commerce or e-commerce. E-commerce provides a digital market place where everyone can buy and/or sell goods or services [18–22]. It is a way of transacting business without actual physical contact. The nature of e-commerce is interconnection of many computers in a network, like Internet. All the activities in e-commerce are done through networks. A store has a web site for the advertisements and also as a front-end. The customer contacts the store via an electronic

mail for purchasing goods or services. This technology offers the opportunity of shopping at home. Also, a computer network provides access to a great range of products and services. Web sites of many stores in the world are hyperlinked with each other, so that a range of price for similar products can be seen by the customers. In Internet, networks transmit data accurately and speedily [23]. Using this advantage, the financial transaction can be accomplished through the transmission of credit card and password information.

Speaking in more general terms, electronic commerce can be seen as the design, production, promotion, marketing, distribution and servicing of products or services to end consumers using interactive electronic technologies based on the standards of leading experiences of the international trade. At the beginning, e-commerce was understood as active selling of products and services over the internet [24–27]. This understanding is now expanded and it includes interactive shopping, developing the relationships with the customers and suppliers, distribution over computer networks, public domain with specific features for trade, etc. In few words, it is a virtual world of real business activity. Since conducting business using electronic data-processing and telecommunications technologies has significantly changed the landscape of business over the past decade, the surge in conducting business transactions via the internet (e-business) has vehemently changed the traditional methods of transacting business. These changes will be analyzed in detail, so that the computer scientist can also better understand what the legal and societal consequences are [25].

E-COMMERCE EVOLUTION

The world of e-commerce and its relevant developments have been advancing very fast in the last few years. But the question is, “Are we riding that fast train of e-commerce, or is it just rushing through out of reach?” Just a few years ago, e-commerce was not as common as it is today. Existing competitors did not consider it seriously. They just waited to see how the momentum carried itself. The scenario has changed considerably. Now even small dot.com companies enter the market with an e-commerce platform. The virtual market is continuously growing and is considered one of the most attractive future markets. A company that wants to catch on at this stage has to think about e-commerce and enter this e-business as soon as possible [26–29]. Any delay in implementing the necessary measures will make things more and more difficult as time goes on. The fact is that to date, only a small proportion of small and medium enterprises (SMEs) in Europe have been introduced to e-commerce. Therefore, the problem is not only that most SMEs should endeavor in the field of e-commerce, but also that they have to be aware of the relevant factors to succeed in their business.

The first step is to understand what e-commerce is and how it can be applied to commerce. Probably the most useful way to understand the complexities and nuances of the e-commerce paradigm is to consider some evolutions which have occurred in this domain [30, 31]. The first stage, which has been characterized as ‘Traditional Commerce’ is the use of conventional systems for executing business workflow. During the next stage, business partners began to communicate using Electronic Data Interchange (EDI) systems. This paradigm, which is intrinsically B2B, has been presented as e-commerce in its upmost form. The evolution in the e-commerce domain consists at first in acceptance that future e-commerce systems will not rely only on B2B, but transaction will involve also B2C and C2C, and even B2G and C2G implementations will occur. These paradigms will be realized employing the next generation of the so-called Intelligent Agents. In a further evolution, business will support Consumer-To-Consumer (C2C) e-commerce. With respect to Consumer-To-Business (C2B) transactions, the latter might include B2B, B2C and even G2B components. Hand in hand, the techno-economic paradigm evolution reveals other critical issues, like payment methods. Provision of security services is essential with the advent of new security threats.

TECHNOLOGICAL INNOVATIONS IN COMMERCE

Computer and commerce are the two jaws of a pair of scissors that are going to cut the competition in the future. There would be a time when to question whether a firm can continue winning customers

on the value chain would increasingly revolve around the relative efficiency, use of logistics information and expenses incurred in getting the goods to the customer. From selling grain on the phone to an online market place, electronic commerce has grown. The spread of Electronic Commerce has been made possible due to widespread computerization.

The most obvious effect is the fast rate at which the variety and diversity of products can be offered. Since there is no need for personal contact with the seller, the customer can access vast catalogues and directories without ever leaving the confines of their office. This is an advantage for the harried executive. Through the creation of protocols, electronic encryption and secure digital signatures, an environment has been established through which on-line commercial transactions can take place. Still issues such as prevention of piracy, confidentiality of contents and legal implications are to be worked out. Another positive aspect is the considerable reduction of costs involved in mass-commercial transactions, due to the fact that no sort of intermediary is needed for effecting successful sales, benefiting both buyers and sellers. Additional benefits include the transformation of the marketplace, the ability to communicate at a personal level and the facilitation of the exposition of products and sales, all of which take place not in cities, but along the Information Highways.

The traditional image of a salesman comes from the Fuller Brush Man or the corner shop. This image is seriously out of date. Many selling and purchasing activities today occur in cyberspace, where computers talk to computers. Using computer technology to automate selling and purchasing functions has a long history and today the use of computer-to-computer transaction processing (EDI) is widespread in many industries. More recently, E-Commerce in the form of the internet, Electronic Data Interchange (EDI) and other computer networks has been hailed as a fundamental shift in the competitive landscape of business. The electronic delivery of documents and information means that business transactions can be accomplished at the push of a button.

Artificial Intelligence

Whenever it comes to how artificial intelligence (AI) impacts mankind, narratives can range from simple fears about catastrophic effects to utopian visions of entirely different lives. Concerns about autonomous robot soldiers, for example, likely foreshadow not so much a return to the ancient world wars but rather pestilence, hunger, and suffering on an insane scale. The potential effect on society, politics, and industry was extensively debated as AI progress reached a certain point. On one hand, people hoped for a "Fourth Industrial Revolution" such as that expected by renowned forecasts, such as advances in industrial medicine that are not solely pharmacological. On the other hand, some fear "the great replacement", as both intellectual and unqualified jobs increasingly go to robots and AI, which, together with the economic meltdown, will lead to drastic social and migratory changes. Many scientists have paid thorough attention to AI growth, which seems to offer an extremely broad variety of beneficial implications. Of particular interest is the capability of AI to provide services to government that were once the exclusive domain of educated people. Given a rapidly increasing range of software applications that use AI technologies, there is a compelling need for a broad assessment of the scope and ramifications of these technologies. Historically, chip implementation has significantly elevated the significance of AI for industrial policy. High-frequency information exchange and the limited computing capacity of the human mind have begun to make AI an important consideration in corporate strategy, and reliance on management-ready processes is determined by the organization's willingness to assign decisions to AI. Most AI businesses operate in markets that are nearing saturation, while large businesses have information advantages, and the sort of orders given to people are completely beyond what machines can fulfill. Convolutional AI is regularly used in mission-critical operations having a major effect on personal existence. Trust is an important influence on accepting this type of service, yet black-box limitations of the service make it particularly difficult for end-users to understand and dependable, and these limitations become sharply evident when serious malfunctions occur, showing the ethical and possibly civil associations of service vulnerabilities. The advantages of employing artificial intelligence and automation for materials (r)evolution are obvious. Already in the 21st century,

development has gone far beyond writing programs to have a computer perform various routines, to the point that today an amazing variety of both data-collecting devices and machinery belonging to wholly different environments can entirely on their own collect data and perform tasks. The scientific challenge today has fundamentally changed to coming up with hacking changes, though profound and broad ones, that would allow engineers to harness these new abilities to accelerate materials growth as planters.

Blockchain Technology

Since the explosion of cryptocurrencies, a decade ago, its underlying technology, Blockchain, has received increasing attention and has the potential to cause disruptive innovation over a wide number of sectors and industries. The original presentation of bitcoin and later implementations of the Blockchain technology brought significant excitement and speculation regarding the use of this technology in fields ranging from finance to safe voting and even real estate. There is a growing interest in using various blockchain technologies in commerce and manufacturing, in order to help assist users on the fair use of rights over certain products, prevent payment holds by companies, ease data trading restrictions as well as improve supply chain efficiency. Nonetheless, most users remain unfamiliar with the technology and its potential applications.

Blockchain technology is a decentralized, tamper-proof ledger that keeps a historic record of all transitions of digital assets. The main target of implementers of the technology is actually public. Thus, the blockchain technology may be particularly used in the context of a future highly connected and automated world. For the first time in history, internet of things, cloud manufacturing, blockchain technology, and smart manufacturing will be combined in a production setting. Regarding communication between future smart manufacturers, the need for cheap, reliable and fast communication of such a large amount of data has been discussed, and traditional communication tools are, at best, slow, insecure, and expensive. For this occasion, the possibility of building private blockchain communications network between manufacturing operators, based on a network of small, affordable and secure nodes that facilitates communication, has been raised.

Internet of Things (IoT)

The Internet of Things (IoT) is a recent communication paradigm that envisions a near future, in which everyday objects will be equipped with microcontrollers, transceivers for digital communication, and suitable protocol stacks that will enable them to communicate with one another and with users. The IoT concept aims at making the Internet more immersive and pervasive by enabling easy access and interaction with devices such as home appliances, surveillance cameras, monitoring sensors, and vehicles. The IoT will foster the development of applications that utilize the enormous amount and variety of data generated by such objects to provide new services. This paradigm finds application in many domains, including home automation, industrial automation, medical aids, mobile healthcare, intelligent energy management, traffic management, and so on. The fundamental idea of IoT is the pervasive presence of various objects that, through unique addressing schemes, can interact and cooperate with each other to reach common goals. This vision will lead to the Invisible Computing paradigm, a scenario where networked devices such as home appliances, consumer electronics and industrial equipment work intelligently in a seamless manner: new devices can join the network easily and automatically; services can be added and shared without any need of user's intervention. Commodity Internet applications based on the Invisible/Flyable Computing paradigm can be imagined which, for example, offer automated presence-dependent support for administrative, commercial, and domestic activities.

The adoption of the IoT model is almost entirely hindered by the lack of a clear and widely accepted business model able to attract investments in a set of enabling technologies for building a satisfied communication/identification infrastructure. It will also need the implementation of facilities that are able to conjugate the demands and infrastructures for routing digital information with the requirements for object tracking. The introduction of Internet of Things (IoT), Augmented Reality (AR) and 5th

Generation (5G) technologies in trade's high-competitive area will fundamentally change shopping. Each of these innovative technologies apart could prepare a large field for making the life of people safer, more convenient, and joyful, and while their synergetic interplay seems very beneficial. Such technology mix in Commerce contributes to the steady growth of the Average Revenue per User (ARPU) indicator; cause business expansion and enables its shift to online operations. Current issues and future trends that need to be addressed in the scientific research community are identified; the market potential benefits of the AR technology for the store are analyzed; AR devices in shopping assisted by AR usefulness and context-specific shopping are reviewed; AR guidance, detection, recognition, and sequential purchase in shopping are introduced.

CONSUMER BEHAVIOR IN THE DIGITAL AGE

The development of the economy and technology brought about the emergence of E-commerce. With the click of a mouse, consumers can complete transactions in front of their computers without going out. As an independent and systematically applied science, consumer behavior research appeared after the capitalist industrial revolution. With the rapid development of the commodity economy and the intensified competition in the consumer market, people began to apply scientific methods to the discussion of buying behavior, focusing on the research of factors that affect consumer behavior, psychology, and other aspects. Theories about consumer behavior and psychology began to appear at the beginning of the 20th century.

Consumers are prompted to evaluate the particular experience during the transaction process. This evaluation is similar to the assessment of face-to-face services and E-commerce websites. Questions about the usability of the website's various features, service quality, personal preferences, disputes, privacy and security issues, etc. emerge during promotion and evaluation phases. Different E-commerce constructs (site functions and products) relate differently to customer positions. Peculiar impacts from three instances appear, each suggesting distinct effects. Outcomes indicate that there is a need for E-commerce vendors to build systems that cover both informative and amusing aspects in the future, as website features include a multifaceted, composed-by-each-others system, eventually affecting comprehensive knowledge and buying choice construction in light of controlled study.

Merchants with websites exhibit their products on the website, allowing consumers to contact directly to buy the products, pay the cost, and adopt the corresponding methods to deliver the products directly to the consumer's location. Merchants also market through their own or partner websites, in the form of advertisements, discounts, and so on. In E-commerce, both sides can engage in business on their own website or websites that allow multiple outlets to attract attention and expand. Business in E-commerce requires websites and servers, as well as payment, order, and express delivery systems. Specialized companies build these systems for merchants, and merchants pay the bills to start a business. Many such companies differ significantly, as demonstrated by various famous examples. Companies provide various methods to display and sell products more attractively, using web crawlers to track websites and analyze consumer behavior, and other related methods to be described and supplemented.

CYBERSECURITY CHALLENGES IN E-COMMERCE

Background and Aim

Trade and commerce are influenced most significantly by digital technologies, which remarkably alters the business mood from traditional way to electronic. Nowadays, cyber security is the most common concern of different business sectors particularly those who are doing businesses through e-commerce. E-commerce site is always a targeted point for cyber-crimes in the form of cyber-attacks. Cybercriminals target the e-commerce company to steal private data like personal information, account details or financial data. Cybercrimes are increasing day by day over e-commerce companies and it has become the biggest headache for top-ranked online shopping organizations. From small to big, e-commerce companies are always targeted for cyber-crimes. Small e-commerce organizations are awake all night regarding cyber-crime threats.

The most common cyber-attacks are phishing, denial of service, social engineering, malware, direct access attacks, reverse engineering and spoofing. These cyber-attacks have become very sophisticated and very difficult to prevent. On the other hand, e-commerce relies on the daily use of technology with strong security measures to protect transactions. The customers are looking for a trustworthy medium to meet their needs. While searching for their different facilities in online shopping, it is very difficult for them to protect themselves if there are not any highly secure parameters in place. It is more crucial to distinguish actual websites and fraudulent ones, which are similarly providing the same facilities. It is not easy for any layman to distinguish the exact website and the copied website. After getting these fraudulent websites, the common people go to a low authentic website and fall victims to fraud. In addition, the legitimate online shopping organizations have to lose their current customers.

On the other hand, the main competitors also implement the cyber-crime strategy to undermine smaller down-market competitors. After gaining the competitive organization's trust, a company may risk losing its supremacy. These competitors may pose a serious cyber security challenge by hacking the website, storing all customers' data and using these to breach any cyber-related activities. Every follow-up tactic is directed toward different competitors who participate in any overlapping or contentious issue. Subsequently, to reveal these cyber security threats, e-commerce companies have to invest significantly. Different computer sectors have to overpower cyber-crime issues. Subsequently, while using high security technology, it is sometimes seen that the cyber-criminals hack the websites as they also use updated technology. Ultimately, it is unlikely that the monthly or annual budget of the organization is spilled away.

REGULATORY FRAMEWORK FOR ONLINE COMMERCE

The dramatic rise of computer technology and online services and the resultant opening of global markets led in the 1990s to the emergence of online commerce (or e-commerce), the Internet sale of goods and services. Led by the OECD and the UNCITRAL, international agencies took up the cause of preparing uniform laws for e-commerce. The United Nations Commission on International Trade Law has drafted the Model Legislative Provisions on Electronic Commerce and the Model Law on Electronic Signatures. Now that the computer technology and software algorithms are available for online legal order processing, the central issue of laws on e-commerce is their principles, or their regulatory framework, or the rules of general liability, in the sale of goods and services by, over, or via the technology and the Internet.

Concerning e-commerce, should the liability, or the general liability, be limited, and if so, for which categories of commercial actions, and by which means: notice, disclaimer, limitation, exemption, or exclusion? Or, regarding online services, what are the offense or defense guidelines, relating to software, domain names, web sites, or portals, meta-tagging or framing, copyright infringement, licensing, commercial communications, consumer fraud, or hacking? Or what are the technical specifications, the verification, the audit, or the hurdles or criteria, concerning the algorithm and/or the database mapping, on-line prescription, settlement, or payment, encryption or digital signature, or the certification authority, storage, or archive, and what is the encryption grade, or the compatibility of standards, and the hush, the TAN, the SSL, or the PKI? Or, who the player should be: the supplier, the merchant, the intermediary, the isp or host, the agency, or the individual, and what is the rule or test of privity or diligence, care, standard, or breach conduct? And what is regarding choice of the law, or forum, or regulation, and more generally private international law? The debate on these key issues grows, from Asia to America, or from government to parliament, or from industry to consumer, or from territorial law to private justice.

FUTURE TRENDS IN E-COMMERCE

E-Commerce is one of the most important trends in recent years. The impact of this new technology field is getting clearer and the notion of the "New Economy" will be dissolved as E-Commerce becomes one of the rules of business. With this technology, many new changes are making corporations more

efficient and competitive and small companies more competitive and conscious. The dot-com rush has brought rapid changes in the market, financial institutions, and the whole economies in the world. It is obvious to E-Commerce representatives that the Internet will bring both success and risks.

In general, E-Commerce is for the age of IT (Information Technology) an era full of emerging new technologies using networks to carry out your activities involved in business management and operations: buying and selling products and services, performing bank transactions, collaborating with trading partners, and communicating with clients. In the near future, a company that would like to promote and sell its goods and services on Internet has two options. They could create a simple Web page explaining the company and its services, or they could publish an advertisement on a Web page. Also, in the very earlier of the 21st century, B2B E-Commerce would be the rule of company management and the number of B2B E-Commerce companies started would be the most in B2B. Small and medium companies are in huge disadvantage in competing with multinational corporations. Not companies have the budget for business travel to promote their company services and products, and many of the new technologies supplied by IT (Information Technology) are beyond their economic range. Nevertheless, E-Commerce empowers small companies by providing easy and inexpensive access to networks where they can conduct many operations.

Personalization

Rapid and extensive growth of the Internet technology, corporations, governments, and many other organizations are employing electronic commerce to reach business markets, particularly consumers demanding the same or similar products. With anticipated competition and the ensuing need for quality, it is crucial that online shopping expedites the search and purchase of items. This, in turn, has led to the burgeoning issue of website personalization, a critical element of online commerce that remains largely nascent. Visits around dinner can mean that the user resides in the European time zones; while user's visits to popular and financial news can be indicative of a demographic comprising financial market employees. These seemingly innocuous observances underscore how a user's interaction with a site is subtly influenced by experiences and habits. Nonetheless, in a brick-and-mortar setting, these observations are insufficient for any significant site personalization. Visiting a coffee shop may begin with the purchase of a muffin after which one enters a state of relaxation and settles down to read a newspaper. In contrast, no one wants to enter an online shopping site and be met with an elimination of DSL modems if looking for infant clothes or see a range of compressed socks buying a soccer ball. Concerning the presentation of cues, a user's notice of sales sign, carpeted walkways, shelf organization, and the display of a popular brand of caffeinated spirit may compel certain behaviors. Conversely, there are activities at a site that express the user's internal shopping behavior but reside outside the domain of clicks and query submissions of the browsing activity. For instance, adding the camcorder to a shopping cart, or receiving a friend's recommendation to visit the site of a prominent gadget maker.

Mobile Commerce

Digital commerce and the accompanying utilization of online exchanges saw a huge development in the previous 10 years. Regardless of some worldwide and territorial monetary difficulties, such as the advancement and crash of the colossal website "bubble" or the physical Tiger assaults, the development of the online transactions is still higher on the majority of the landmasses. Aside from a particular improvement, one of the significant industry drivers is the predetermined reflection of the user society, with a generational move from the present consumer realization to Generation Y users, brought up in the economic dynamisms around the skillet and web2.0 surrounding.

Such a move from the X to Y generation and with some parcel development in between speaks to the coupling of baby-boomers from "consumer" to "producer" or "prosumer". This shift will convey even more technological progressions and new apparatuses, such as: digital TV, 3G transportable technologies, social media or peer to peer sharing camouflages. This study does not focus on the above outline-referenced technological upgrades; it will give an overview literature analysis of the rising

m-commerce patterns in the given macroeconomic conjunction. Changes on the internet, such as Facebook or MySpace, and popular content exciting videos on resources such as YouTube or others are well known in the Western world. Now mobile business services are growing quickly, generally driven by mobile payment.

Sustainability in Commerce

Sustainability is a critical theme in transforming our environment and society. The primary goal of sustainability is to maintain a fully supportive environment that sustains society throughout all generations. Commerce is a well-established aspect of every sector that contributes to the social economy, and it is essential to unravel its sustainability concerns. Life-cycle thinking is the central concept of sustainability by discouraging the trade-offs within activities between environmental, societal, and economic concerns. The major goal is to enhance the global life quality by promoting “win-win” solutions capable of continuously integrating the three concerns. Commerce-intensive activities at all stages of life-cycle development down to those after consumption, such as recycling and disposal, apparently contribute to achieving a better life for future generations. However, there are three fundamental problems in commerce-intensive activities that still remain unanswered and can partly explain the perceived mistrust on this sector concerning life-quality safeguard. They are: how economically commerce-intensive activities depend on the exploitation of fossil fuels; to what extent commerce-intensive activities’ application of pesticides and fertilizers burdens the environment; and how profoundly commerce-intensive activities affect the durable record of the emergence of anthropogenic climate change.

GLOBALIZATION AND E-COMMERCE

Globalization requires, along with other things, strong actors: the ability to provide services to different parts of the world throughout the day, in different languages, to meet the demands of people of different cultures. Huge resources are needed to build such infrastructure resulting in the inevitable deterioration of the functionality or disappearance of all small “players” on the international market both in the services and in the products. E-commerce is also one of the aspects of globalization and the use of this type of business is expanding rapidly. E-commerce is a new way of doing business with the help of a computer and functions such as advertising, information exchange, payment and finally the delivery of goods through the Internet. E-commerce provides new opportunities for the exchange of information, and creation of new market structures, and thus contributes to productivity growth. The rapid penetration of computer technology and the Internet only open the door to new forms of commerce. The explosive growth of the world wide web in the last couple of years and the tremendous increase in the number of Internet users give assurance that e-commerce will largely change traditional forms of doing business. E-commerce is based on the exchange of data and information between individuals and organizations connected through IT infrastructure. This exchange allows for online ordering and supply of products based on predefined terms. E-commerce will have a direct impact on the growth of domestic and foreign trade.

Internet commerce is expected to become the largest retail channel in the world. At stake are sales to the retailers, wholesalers and consumers. It will surpass sales through retail outlets such as supermarkets, independent farmers, clothing and footwear stores. This commercial channel will reach the share of 9.8% trade. Among the countries of Central and Eastern Europe that belong to the EU, it is Hungary whose share in Internet trade is the highest, i.e., 6.9%. However, the Internet trade in the same year will account for 31.5% of trade in Hungary in near future. Other countries from that zone are also increasing their participation in Internet trade. For now, Slovenia is in the first place in the field of Internet trade, as far as the countries of the former SFRY are concerned. It is among the states in transition that this type of trade has the largest participation, i.e., 9% of the total trade. Participation in trade over the Internet in the next 5 years should amount to 35%. In addition to Slovenia, countries of Eastern Europe and other former states participate in trade over the Internet, such as Czech Republic, Estonia, Lithuania, and Latvia.

CASE STUDIES OF SUCCESSFUL E-COMMERCE BUSINESSES

Viewing from an overall perspective, behavior mechanism of network consumers, the driving characters of E-commerce technological development, and the roles played by E-commerce in the various industries can all be illustrated by the mechanism of the description about Industrial Chain and Value Chain. From the overview to the specific operational system construction of Enterprise's E-commerce, relevant knowledge involved in this part is mainly embodied in such concepts as: B2C, B2B, department store, network treasury, online transactions, shopping platform, online promotion, etc.

In recent years, management studies and consulting reports have increasingly focused on investigation about several highly successful E-business enterprises. The key elements and best practices of those successful E-businesses have been analyzed and mapped to the definition and models discussed in this study. Here 11 cases refer about B2C and C2C E-businesses, referring to real clients of consulting services, dotcom or traditional industry shop, mostly in US and China.

Special concern has been placed on how they make E-commerce decisions, align marketing strategy with E-commerce strategy, and handle issues and benefit from E-commerce technology. Most analyses were conducted by leveraging the SWOT analysis models and other relevant strategy models, enumerating vision, objectives, best practices in systems, customer relationships, marketing strategies, and other relevant E-business aspects for each enterpriser. On that basis, many implications were made in terms of strategic management, technology adoption, and continued best practices regarding E-business development for the readers in this cyberage.

Amazon

Amazon is a world leader in electronic commerce. Its expansion has been huge in just over 20 years of existence and nowadays, its local marketplace is present in 13 countries. It has also grown thanks to the creation of marketplaces in which other companies can sell their products, the most important of which is Amazon Marketplace. Currently, Amazon operates in 13 countries and is the pioneer of the sector in the United States. This phenomenon is known as the "Amazon effect" and is linked to the closure of many small businesses and the changing shopping habits of Americans. The trend is also being observed in the UK and it is very likely that it will spread widely throughout Europe in the following years. There are countries in which the expansion of Amazon is more difficult and Spain is especially difficult. It is the 13th biggest economy in the world, which is not very attractive for a company like Amazon that earns a third of all sales from foreign marketplaces. Its strong economy has attracted a lot of competition, so there are already several online ecommerce companies that exceed Amazon sales. Spanish people are not accustomed to buying online and are not willing to pay extra delivery charges. Amazon relies on distribution centers and that may be a mistake because most Spanish small and cheap houses are located in the center of cities without easy access for trucks. Customers in Spain do not buy big amounts of products, so purchasing in local marketplaces outside Amazon can be more profitable as the delivery is between 24 and 48 h. There are many opportunities ahead for online sellers, like the existence of many potential markets, the growth of Internet users or the trust that this type of business is generating. Making a mistake in strategic decisions could lead to huge losses, therefore it is important to make profound analyses. A possible business strategy for Amazon is discussed, as well as some recommendations and future lines of research.

Alibaba

In May 2003, Martin Winterkorn stated: "Alibaba has become strategically aligned in compliance with its future partner VW Group". Yet, despite this announcement, a formal bond materialized only in December 2016 with the outfitting of a "comprehensive strategic collaboration" deal. The subsequent rhetorical switch concerns VW Group purchasing a 16.6% share of the truck and bus unit of the firm instead of investing in Alibaba itself. There has been mounting frustration within VW Group over an evolving strategic discrepancy within the relationship. Furthermore, heightened scrutiny over VW Group's motivations for undertaking IT-related research and investment with Alibaba has augmented

factional tensions, since the investment in VW has only the purpose of shielding the latter from its formidable rival in the Chinese auto industry. Despite fervent lobbying efforts for VW Group to further invest in Alibaba, the deal failed to materialize. Instead, mounting worries within The VW Group head office concerning the prospective ally not merely bypassing preferred partners to whom it was recommended, but also embarking on investments at odds with VW's strategic interests, resolved in the protracted bureaucracy and frugality displayed over subsequent investment and partnership proposals.

Shopify

Different fields of electronic commerce have grown substantially in this last decade due to the increased accessibility of internet and other network technologies. By transferring information through different modalities, the internet has begun to change the ways business is conducted. Electronic commerce, also known as e-commerce, can be generalized as a type of commerce industry that takes place over electronic systems, usually over the internet, using content data protocols and encryption to ensure proper data flow. E-commerce began to grow in various business fields in the early 2000s and has continued to do so since then. Although the services and procedures of e-commerce have gained many improvements over the years, there is always potential to improve the functionality and benefits of e-commerce.

The eternal question of how to sell more is the foremost goal of the online salespeople. However, on the other side of the screen are the consumers, the customers who flood the limitless virtual marketplace and never-ending cascade of advertisement. The online stores are a popular place to shop. The novelty of technology, convenience, availability, time and money saving, the wide selection of goods and services, all attract one to the idea of shopping from the confines of one's own home, without getting up from the couch. To analyze consumers for the operator's own good, to track the attributes of the consumers, their interests and needs or the appeal of a product. The Shopify platform is one of the world's largest services for creating an online store. The stores created with it have a total of approximately \$ 40 billion in sales, and it handles the payments for even \$ 4 billion purchases. Unfortunately, the Shopify software comes without an option to track the qualities and attributes of one's own customer base, as it does expose certain qualities of the people who view and give a like to a product. Hence some creative coding was used to carve an affordable manner to track the purse carried in the wallets of the customers. PUB CDF method relies on a crawler that according to a set of predefined rules access the desired URLs and extracts the requisite information from the web page source code.

CHALLENGES FACING E-COMMERCE

Trade and commerce are from the beginning of the world and are influenced by various technologies including printing, telecommunication, and computer technologies. The turning point in trading, buying, and selling products was initiated by Britain, when in 1960, the first real money was introduced. The earliest electronic trading began as the telex and telegraphic commitments between a customer and a financial institution. E-commerce carries trading activities to a new height. Due to huge development of web technologies, it will gradually take the leading role in international commerce. An e-commerce or electronic commerce involves the electronic buying and selling of goods or services including the file transfers or data transmissions over the Internet or any service which relates to transacting funds or monetary consideration through the web technology. It is difficult to flourish international commerce at present time because of the political relationship among nations, as well as the high operational cost in establishing outlets abroad, but nonetheless it can keep a trading relationship. However, e-commerce is advantageous for trading due to the followings: E-commerce or web commerce provides an excellent opportunity for business to explore in the international market with or without the new firm. E-commerce is a medium to display your entire product range rather than only virtual outlet inside the country. It is most economical to maintain and has very little operational cost. All information is available to both the buyers and sellers, i.e. the buyer can read about the product features, attributes, technical specifications, price tag, compatibility, and so on before the purchase of a product and the seller can read about the buying interest of the customer. Gradually the web technology exploring everywhere has become a common matter for everyone to browse the internet rather than window shopping.

Logistics and Supply Chain Issues

The biggest challenges lying before the clothing retail sector are meeting consumer demand by reducing goods delivery time without increasing product cost and enhancing retail business performance. In order to do so, apparel retail now has to adjust its business design and procedures to meet frequently-changing consumer habits by mostly utilizing an agile, cost-effective supply chain. An apparel supply chain is being agile and lean. Agility is the ability to renew or adjust the chain in a short time in order to provide quick response to unforeseen consumer demand. A supply chain's leanness focuses on its cost effectiveness and aims to deliver goods with minimum cost and in the shortest possible time by eliminating unnecessary activities or links inside a chain. To assure a successful performance of the agile and lean supply chain, its every link has to be integrated with smooth information flow that can enable timely collaboration. Information technology (IT) has proved to be a suitable means for a flawless achievement of agility in supply chain management by focusing on cost-effective procedures.

The transformation and automation of a classic approach in conventional SCM functions provided the possibility of their digitalization and has enabled accessibility to information from every link of the chain in real time. Nowadays, the use of IT is increasing by multi-storied businesses with programs that implement and manage the entire chain from the assortment's manufacturing and planning through demand forecasting, delivering final products up to the end-consumer and managing goods return. Principles of the lean concept in logistics have to be observed by implementing the integrated warehouse management system, which is supposed to be a crucial tool needed for about 20,000 m² large goods' warehouse by selling point. The modern logistical approach will be improved by the realization of electronic data interchange (EDI) with a major supplier, by which fast operations of automatic goods' ordering and informational services will be provided. Bulk storage and season sale storeroom establishment to 1st and 2nd level suppliers will confirm the adherence to the quick logistical response concept.

Market Saturation

Revenue in the personal computer (PC) sector is approaching saturation. A decline in demand for components of the computer (monitor, central processing unit (CPU), and printer) has followed that of the PC, so that the overall market for computers is in a limited growth phase. Given the PC industry's importance in the global information technology sector, the Japanese government is planning to revitalize the market. The world market for an "IT revolution supporting next-generation technologies" is considered (final demand benefiting the Japanese economy within the next 10–15 years). The global competition is fierce; in the computer sector, it is driven by the competition between Intel in the USA and Microsoft's operating system and the "Wintel" alliance of computer manufacturers against all others. A high priority has been set by the Japanese government on "a pent-up IT demand", so as to improve such things as the transaction effectiveness at the bedrock of the "e-Japan Strategy." So, this study tests the effectiveness of the computer sector's IT revolutionary model's software peripherals/ATM for a proprietary database of the Monokimura Large Data Experimental Production Program. There is no evidence to support the hypothesis of a pent demand for IT in the model's computer sector. This is entirely consistent with suggestions that computer-generated improvements in output and productivity will slow down considerably after a critical mass is reached. Time savings for bank transactions will not improve farmers' situation.

ROLE OF SOCIAL MEDIA IN COMMERCE

Social media have further established status within global commerce. Most businesses utilize social media within their value chain operations. Various types of content are made available in social media. Social commerce activities revolve around consumer participation. The transformative impact of IT on business activities has largely been the result of the Internet. Yet overarching 21st century innovations that comprise the umbrella term of Web 2.0 have given rise to the plethora of new services and new ways of engaging in commerce and social activities online. The increased utilization of the Internet not only in the more economically developed societies but also amongst the general population has given further established status to the importance of the Internet within global commerce. It is therefore not

surprising that more businesses have expanded their use of the Internet to include social media within their value chain operations. In the sense of social media engaging in online sites that provide applications and features to interact with/produce UGC to share observations, activities, events, linked web pages or products through the creation of conversational spaces in the form of profiles, networks, groups, forums and blogs, and where various types of content are subsequently made available. Mainly it is consumer involvement in contribution or participation in the creation, promotion, distribution, recommendation, and purchase of sales regarding commodities, information, animation, or services engaging in online trading activities. Social commerce activities largely revolve around consumer participation.

DIGITAL PAYMENT SYSTEMS

Introduction

The last 25 years have led to significant changes in the global market. The rapid development of computer technologies and their entrance into daily life, the enormous outreach of the internet, explosive globalization of the world, the opening of new markets in Eastern Europe and South-East Asia, and the change of monetary, trade, state, and industrial policies are processes that have brought about significant alterations in the world of commerce and brought forward the question of the future development of the relationship between computer and commerce. Partially, the development of electronic trade and electronic commerce could have been and should have been predicted even in the eighties. The centuries of trade and marketing developments have functionalized several methods like auctions, marketing via advertisements, catalogues, fairs, and stores; the computer and especially the internet helped all these to turn easier, faster, and to reach a larger number of consumers. So, both local and international commerce found a new, practical, and advantageous field to evolve. Yet, the several methodic and technological innovations beginning from the eighties led to a quantum jump in the evolutionary relationship between commerce and computerization, static screening, globalization, working and manufacturing automation, banking, cyber travel agencies, etc. Summing up the variety of the developments that could not at all be imagined even in the eighties, in order to recognize some perspectives of the probable further developments in the distribution and trade, some broad hints related to the recent e-trade practices may be given. In its continuation, emphasizing the changes occurred in the environment of commercial trade, the possible and likely development can be outlined, especially from the view of some small and specific industrial, predominantly low technological products.

Cryptocurrency

In the WONDEROK W-1 Information, there is a hidden fact that a cryptocurrency can only be generated from information. According to the data, \$ 506 million USD a day is quickly moved into using bitcoins, bypassing exchange rates, into 19 countries; and in addition, this transaction requires no exchange fees, leveraging the fact that using bitcoins have absolutely no fees attached to the transfer. This brief statement could expose the concept of a cryptocurrency to prepare for future commerce.

A cryptocurrency is a fully digital currency that is currently being circulated online around the world. To trade in the traditional way of cash, a transfer to a bank account would happen. However, since a cryptocurrency is already in the form of digital data itself, it can completely disregard cash with a direct transfer between persons online to online (without account boundaries). In addition, this direct person to person movement also provides security to prevent any crimes from occurring due to the fact that transactions could be easily traced. Wonkok spokesperson also adds that much of the recent commercial development has taken great interest in this field, blockchain technology, which is a backup system that manages transactions using inter-related information blocks, using transparent data. Currently, Poloniex has developed and is gaining commercial interest, expanding the market to 190 countries.

Cryptocurrencies have the potential to have a significant impact in the electronic payment space, particularly with the application of blockchain technology, which is the underlying technology enabling the use of decentralized reviewing strategies. The application of a unique linking mechanism, known as a blockchain, may result in strengthening the transmission of transactions via public and private

networks. Early market players have been spearheading consortium developments with a pan-industry development group, the World Financial Communications Business Consortium. The goal is to expand a wide range of financial service applications from electronic payment to wholly-formed securities compliance and global cash management. However, these new applications also bring significant risk, particularly in the areas of legal frameworks, privacy, and security.

Mobile Wallets

A mobile wallet is a software application that replaces the physical wallet. The mobile wallet stores information regarding the owner's debit and credit cards, membership cards, and gift cards. Mobile wallets can automate different real-world shopping tasks. Mobile wallets can perform proof of credit, collect loyalty points and coupons, and find nearby stores. This study focuses on the extensibility of a mobile wallet that utilizes the NFC (Near Field Communication) interface of mobile phones. An NFC-based use case is implemented to show how the information flow is done when buying products with NFC tags using the mobile wallet approach [26]. The mobile wallet has proliferated recently, thanks to the growth in mobile technologies that can wirelessly communicate with the wallet infrastructure. The first-generation mobile wallet was designed for online purchases, utilizing SMS and WAP services. The second-generation mobile wallet, known as NFC-based wallets, was designed to enable shopping in physical places. The mobile wallet application is often considered an integrated payment method. A mobile wallet can, however, support various applications beyond mobile payments. Despite various approaches to the mobile wallet, only a few mobile wallet solutions have managed to create significant business. To deploy successful mobile wallets, their extensibility can be considered from three different perspectives. Mobile Wallets can automate many real-world shopping tasks. With proof of credit, the NFC-based Payment Card Industry Data Security Standard (PCI-DSS) feature can do the transaction via a contactless credit card interface installed in the mobile wallet, after choosing the right credit card from the cards that have been stored in the mobile wallet.

ETHICAL CONSIDERATIONS IN E-COMMERCE

In this day and age, to get the most by means of the computer resources, commerce appears in the form of new commerce called as cybermalls. Computer, initially being used as a medium to calculate, to develop science technologies, and to help purely security matters, has opened a newly appreciated area: Applying in the business and trading activities.

Thus, because the computer could work faster and also more consistently rather than a man, made the skeletal staff or human source may appear be not too functional, which potentially would be replaced by the computer system. If demanded, computer operational costs are lower than human resource. This time the computer may be planned to run e-commerce practice. It would indirectly or directly lead to a new unemployment problem that could cause an escalation of riot. Unemployment has been classified as a common problem where the bankruptcy level is high. That is why, it needs new strategies and protective measures to avoid the situation from worsening. Economic activities are no longer being applicable locally but also are applicable on global scale. Through the potential of internet, it is not impossible that everything could be placed everywhere easily. Effort of marketing through the internet could not be limited by territorial or geographical limit, so, online marketing or e-commerce was born. E-commerce is not linked with the site where the transaction is done. Key usability factors that are closely related are: ease of access, ease of navigation and ease of finding the product offered. Internet is an increasingly important tool in the marketing mix. A number of large corporates have developed their own websites with an e-commerce strategy. But a number of small and medium size firms find it difficult to develop such expertise and have closed e-commerce operations as quickly as they have opened. Mobile technologies are becoming more sophisticated and will offer new opportunities on the internet.

Consequently, new marketing possibilities using mobile technologies, such as wireless advertising, mobile commerce, and location-based services, may raise entirely new challenges to the field of online consumer privacy dealing with issues. Industry must set down tensible measures to control every

violation of the consumer privacy. If the consumer feels security and privacy, the industry may thrive on promoting the trust, confidence and finally the loyalty.

THE ROLE OF DATA ANALYTICS IN COMMERCE

Computer science and data analytics have become increasingly more important in the commercial sector. The first part of this is due to the high degree of automation: data are collected and stored on a large scale, by now also in commercial environments. This ease of access has drawn data analytics towards the analysis desk of many businesses. As a second point, computer science has made substantial contributions to advancements in e-commerce, especially using today's techniques of intelligent data analysis. Therefore, computer science and commerce could shine a common future. In this feature, some current and potential future relationships are examined.

One example of where this shared future is already visible is in the analysis of transaction data. As computerized transactions in places like supermarkets are almost as old as the first home computers, the amounts of easily analyzable data have risen, too. To turn data into value has led to the development of concepts such as data mining, a sentiment which is almost as detested as it is popular. But especially in recent years, some interesting and useful algorithms have been developed in this field. The performance of this kind of analytics can be monumental, even on everyday hardware. Given correctly formatted data, the software's ability to find nonobvious connections can shine a new light on many developments in commerce. At the same time, technologies that allow this analysis have been able to lower the barrier to entry so that even small or medium-sized companies can apply this level of data analysis. On the other hand, the Big Data techniques applied to large datasets can uncover more general trends and have reshaped the way business goes.

CUSTOMER SERVICE IN THE DIGITAL ERA

In the digital era, business takes place not only in traditional business activities but also includes electronic commerce (e-commerce). Not just business activities, e-commerce has a sophisticated approach in all business activities, i.e. from the preparation and production of the business, to finance and administration of the business, even in marketing the business. Business adapts to technological developments, with the increasing ability of computer-based devices. Similarly, internet technology has increased the scope of business in marketing and e-commerce. E-commerce in the banking industry is needed to attract more customers.

Establishing e-commerce relations between customers and the bank has a direct impact on customer service. Online transaction services through electronic commerce on the bank website should be more interactive; this service should be more in accordance with the customer needs. The effects of customer service on the development of electronic commerce have a positive relationship. In this case, the relationship is not linear, but it can be asymptotic. Thus, giving more attention to the audience of interaction, customer service can be used to improve bank performance. Managers and bank operators should ensure that electronic commerce is used as a vehicle for delivering quality services to customers. The government, as the whole provider of the country's economy, must formulate appropriate legislation to encourage the strengthening of transaction prices in Kenyan banks. The ICT board should intensify its awareness to customers regarding the current and future use of technology in the banking industry, thus ensuring customer access to quality services through e-commerce. The future of e-commerce can be described. Both customers and banks tend to use it more often to make general transactions and deposits. However, trust and risk issues arise. Successful online trading should be believable. The rise in trust should be facilitated by raising the awareness of banks regarding the security of transactions over the Internet, as well as protecting confidential customer data.

Nowadays, high-tech devices such as computers, laptops, net books, Tablets, Smartphones, electronic agendas, state-of-the-art palmtops, high-end electronic notebooks, and Super-Utility Cellphones contain all such functions in a micro environment are in vogue. These types of devices are essentially personal

property and the owner of these devices maintains personal information about him/her, belongings, credit information, school results, medical history, emails, and all other data considered private and confidential. These kinds of people may hide their personal secrets or avoid using high-tech devices with privacy concerns. On the other hand, these same people can use super-high-tech devices for fear of losing contact with high society or business needs. Fashion and other fashion-oriented trends cause people, high-tech gadget acquisitions including Cellphones having multi-function just for fun. High-tech industry is directly related to the computer/Cellphone manufacturer benefit for a fashion-oriented consumer. The computer industry is booming thanks to the Super-Utility Cellphones with the Note Book look and with Palm-Top technology. All people are dying after the gadget; they have started a new strategy to penetrate the market by selling an attractive look with all the high-tech atoms. Computer looks like an object mistaken for personal information on the consumer, price over quality for the beginner has been increased as two or more times and succeeded in fourth place after making the strategy of 'Sales Promotion', 'Discount', and 'Special Offer' success. When compared to other company, especially "Porting", has made the comfort with regard to the location in the city and surrounding show room in sightseeing environment.

FUTURE OF BRICK-AND-MORTAR STORES

Like paper and pen, Batman and Robin, or peanut butter and jelly, some pairs are just timelessly great. The struggling question many people have had on their minds is: Whether or not computer technology and the trending online commercial shopping market could ever be a good match with traditional commerce and brick-and-mortar stores? Just how exactly this match-up could effectively be presented or even benefit local economies? While the economy tends to be ever-fluctuating and changing forces, the answer is still ever much a heavy pair like that of those timeless matches.

All across the nation, as well as much of the world, there is a growing panic that various cities are trying to outrun. Large brick-and-mortar stores are closing, leaving empty buildings from Seattle to Memphis and beyond. The five-year domino effect of this panic has accounted for a roughly 35% increase in closed big-name, stand-alone chain stores within the US. Yet, a similar parallel effort, and just as actively sought after, people are trying to refurbish buildings within rural areas and small towns. Without doubt, profitable small brick-and-mortar commerce is still very much viable in this state and nationwide, though many concerns must now be taken into account. These run from creation of a scenic and serviceable storefront, to a beautifully arranged and organized shop, to the need for someone at least knowledgeable in advertising and perhaps even retail. Thusly put, and with a carefully moderated selection of the thriving business that the brick-and-mortar shop wishes to captivate in mind, the number of successful businesses opened notably increases. So, what is to blame for this recent lifeline of the internet-based retail stores located in rural and small-town areas across the country? Oddly enough, it is the wildly offline retail store sector that is leaving a trail of empty buildings behind. And ironically, the key to keeping those rural storefronts in business lies in the computer. There are a number of budding theories regarding how the brick-and-mortar boutique clothing store might regain footing within the clickbait world while peddling its wares and greenhouse or tented glass storefronts. Is it unnecessarily pessimistic Scottish realist bias that continually crops up in the observation and creation of propositions regarding the future of small-time swamp-dotted boutique commerce in the lower portion of the lower 48 states? A person must create a site where these things may be examined more thoroughly. And thus, may it be noted an empirical discussion on this unsettling topic as of late has come to a head in need of further exploration.

CONCLUSION

Business without Information Technology has no future except in a few tiny niches. Whilst the positive aspects of IT must be kept up and extended, the dangers should be minimized through intensive research presenting life in some points of view. There are fears of almost Luddite nature, ranging from the electro smog allegedly endangering health, to the most serious question of data misuse and thereby, not so much identity theft, but the entire personality being reduced to data making people manipulable

for whoever has the right access to the data sets. How is it possible at all to defend IT and to offer a somewhat optimistic perspective of this technological revolution, when it is clearly the driver of the environmental crisis and of tendencies in society towards surveillance and control of individuals? Throughout all times and technological revolutions, the fears are the same and so far, they have been proven wrong.

It is true, of course, that many jobs have vanished on the one hand, whilst others require new skills. But all in all, there is more wealth to be shared nowadays than 20 years ago. Computers and microelectronics have revolutionized production and logistics, have accelerated an already ongoing globalization process and have transformed the working environment introducing telework and new forms of flex work. Consequently, the terms of everyday life have changed and passed to warp speed for many people. Why bother writing a letter, mailing it and then waiting for a reply, if an email can fulfill the same task in a fraction of the time? Similarly, SMSs and instant messages have increased the speed and frequency of exchanges, but have also made some communication rather trivial and impoverished its language. Society has been said to be moving from information to a knowledge one, but the process could well stop by way of an information catastrophe. Every item can be searched and found, but access is tedious, and too much information can hide the piece of knowledge one would desperately look for.

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