

# *Code Halos: How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business*

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[Malcolm Frank, Paul Roehrig and Ben Pring (2014). *Code Halos: How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business*, Wiley, Pages 256, ISBN: 978-8126548606.]

In the evolution of the human species if Industrial revolution were to be described as a major step; the technology revolution can be considered as a giant leap. This revolution has been made possible by the generation of innumerable amount of data around us. Imagine the vast oceans of data around every being - text messages, every website visited, songs listened to, every click made, Facebook likes etc.- Humongous. The arduous task for the Code Halo (inclusive of big data) companies is to make meaning from the colossal amounts of data, and to apply the understanding for business strategies and practices.

*"As the authors define it: A Code Halo is the field of digital information that surrounds any noun-any person, place, or thing. More often than not, that virtual self can provide more insight into-and thus generate more value from-the physical entity alone"*

Through a rich narrative the authors attempt to answer the questions whether individuals/ businesses were able to see the technology-based sea change coming? Were they able to capture the commercial opportunity? And, they direct the reader that using technology is at the discretion of the individual/business, but by ignoring the significance of these transition businesses may become extinct. The book also encourages the readers to think and relate to their everyday activities.

## **The Digital Economy**

The leaders, winners and outliers of today's world are playing a different game; fighting a different fight; and winning with a new set of rules. With the immense amounts of data generated by us, using our widgets, there is an unseen digital economy that is quickly emerging. This started with the commercialization of the internet, and according to W. Brian Arthur of the Santa Fe Institute and the Palo Alto Research Center (PARC):

*"This Second Economy will surpass the world's first (or industrial) economy in scale and scope by 2025. The virtual, digital economy will exceed the industrial economy-the cumulative output of mankind's development over several millennia- in terms of transactions, revenues, and value creation, in a mere 30 years"*

What made, or makes, the digital economy successful, rightly mentioned by the authors, is their business model - the creation and management of Code Halos. According to the authors, "Amazon eliminating Borders was not a book thing, nor was Apple outrunning Nokia and BlackBerry a mobile

phone thing, every one of these industries' disruptions was a Code Halo thing." The emergence of these and much other, exuberant growth in digital economy reveals two major patterns - the Code Halo formed the basement for the commercialization of consumer technology and there was outsized growth in a very consistent manner. What is surprising is that the skills for creating, implementing and managing these are not taught in any curriculum in the education system.

What has made such business models successful is our interwoven personal lives with the internet. In the past two decades, we have highly personalized and blended our virtual world into our real world. According to Mark Parker, the CEO of Nike, "The digital and physical worlds are starting to come together - it's only the tip of the iceberg in terms of what's coming."

## **Tyes and Elements of Business Code Halos**

The authors enunciate that such interweaving is possible through the five Code Halo solutions - Customer, Product, Employee, Partner and Enterprise - which the authors call "Holocracy". The authors have provided with an extraordinary emphasis to the term "Holocracy", grabbing the reader's attention as the book unfolds.

You and I, as customers have personal Code Halos. This, in the hands of the company, is its lock, and the key to it is providing us with personalized customer experience by applying individual code. It provides targeted commercial interactions. For example, Amazon provides personalized shopping experience; it provides the right items in the right place at the right time. The products are the software and hardware that collect our information. Our Code Halos connect with the Internet of Things, so that value and meaning is generated over time. For example, our smart phone and the installed games and apps, which are increasingly network aware, are products that can gather information about us. As personal Code Halos enrich customer experience, Employee Code Halos enrich work experience. Sharing of our work history helps in knowledge transfer, individualizing and transforming work experience. It facilitates getting the right work, to the right person, at the right time. It also helps in improving productivity, employee retention and hiring. For example, LinkedIn helps in employee-employee and employee-employer communication. The Partner Code Halo integrates the product and employee code halos, it brings clarity and insight to real time decision making. And finally, the Enterprise Code Halo is an aggregation of all four Code Halos. It gives the organization an identity based on what it does and how it does it.

*"As the number of interconnected things expand, almost every device, product, and object - from simple consumer goods to complex industrial equipment - is a candidate for a Code Halo"*

To collect and assess the required data the Code Halo elements are employed - amplifier, application interface, algorithm, data and business model.

Amplifiers are the devices that enable interaction (Computer devices, industrial machines, wearables). Application interface refers to the inbuilt softwares. Algorithm, the most important of the five elements, processes the data to make meaning. Data is then analysed and used in Business models.

The authors enhance the fact that the organization's Code Halo explains more about the organization than its campaigns or annual reports. This forms the basis

for understanding the growth in the digital economy.

### The SMAC Stack

When I purchase a book in Amazon.in I get further recommendations of books to buy, this is based on the preferences of other individuals who have similar tastes like mine. When I search for flights between Indore and Bangalore in MakeMyTrip.com I see advertisements of MakeMyTrip.com in the other websites I visit (for the same route). This is because MakeMyTrip.com records my searches, and follows me to the other websites it has partnered with. This is how Google and Facebook earn its revenues. This exchange of information by companies is possible because codes connect with codes on four technologies- Social, Mobile, Analytic and Cloud (SMAC) - and they work together to know the minutest of details about our personal likes and dislikes. The authors have made a significant contribution by providing us with this integrated view.

The SMAC Stack provides the raw materials for Code Halos. SMAC technologies are the infrastructure of the new Code Halo economy. Explaining the SMAC Stack:

**Social technologies:** All software that helps in interpersonal communication, like blogs, email, social networking etc.

**Mobile technologies:** All portable hardware devices and the software, network and applications that support those devices. For example smart phones, tablets, wearables etc.

**Analytics technologies:** A software supply chain that helps in collecting, organizing, managing and analyzing myriad amounts of heterogeneous data.

**Cloud computing:** The network of remote servers on the internet that helps store and process data, instead of owning and hosting them internally. This allows for greater flexibility of resources and lower costs.

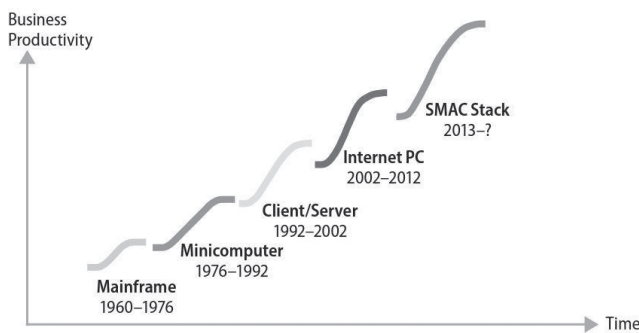
Initially the SMAC technologies were disconnected, but now there is a high degree of integration, mainly fostered by the information exchange between the participating companies. With the development of the SMAC technology the internet age has evolved to the digital economy age. The authors explain this as the fifth wave

of Corporate IT - from Mainframe, Mini Computer, Client/server, and Internet PC to SMAC Stack.

**The Fifth IT Wave**

The first four IT Waves have enhanced business productivity. It has helped in reducing costs, generating revenue and providing productivity gains. The same is expected from the present SMAC technology model. No technology is an island now. The combination of the SMAC technologies has resulted in the multiplier effect, interlinking the technologies to provide meaningful data for further business implications.

*"For a Code Halo to have an impact on performance, it must be integrated into well-codified and well-understood business processes- such as sales, customer service, research and development, or supply chain management"*



In the past decade Apple, Google, Facebook, Amazon, Pandora, and Netflix have generated market value of more than \$1 trillion, and this has been made possible because of the creation and management of Code Halos. It depends on companies to leverage this new technology. For example, Zune was a portable media player marketed by Microsoft, launched as a competition to Apple's iPod. It started in 2008 but was discontinued in 2012, mainly because it failed to build proper partnerships. It did not build apps, it did not build games, and it did not generate information. Thus, it was unable to provide any meaningful user experience and remained as a fancy music player.

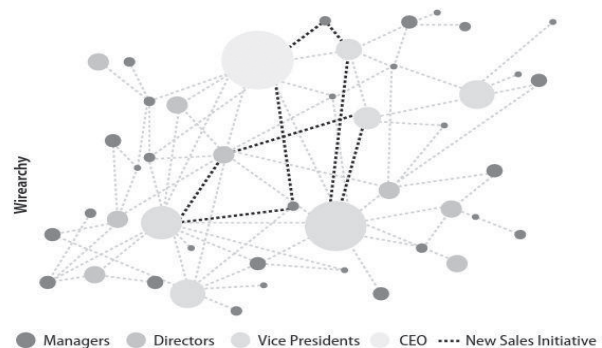
"The Code Halo opportunity is vast, and the downside for missing this trend will be harsh and swift."

**Principles of Code Halo Strategy**

The authors provide a "new rule of code" that will help business survive and thrive in the Code Halo world. The authors recommend businesses to adopt the four principles of Code Halo strategy: (i) To deliver beautiful products and experiences (ii) Avoid evil (iii) Wirearchy principle and (iv) To nurture Code Halo heroes.

Firstly, the Code Halo solutions must provide users with beautiful products and solutions, like apple iPod and unlike iPhone 6. The users must experience the "Wow! How did they read my mind?" effect. Secondly, the Code Halo companies must learn to ignore the voices of the dark side. Issues of privacy and ethics will erupt, people will be hacked, government interventions will grow and advertisements and media will continue to trouble. But, the winning organizations must recognize, understand and actively manage such negative issues.

Thirdly, businesses should establish a "Wirearchy" organizational structure. The term Wirearchy is defined for the Millennial as the organization structure where members earn their status through knowledge and willingness to share. These are dynamic networks with interconnected nodes and free of ranks. With such a structure the employees are obliged to be an active part of the community in the Wirearchy. The Facebook organizational structure is one such, which defies, but not completely eradicates, the age old command and control hierarchy. The authors list the rules to follow for success in the new organization model. Though the authors created an enduring effect throughout the book with the term "Holocracy", they fail to do the same with "Wirearchy".



Lastly, it conciliates the reader to find that the authors have prioritized the role of "Halo Heroes", who would make use of the one-time opportunity to step forward and lead the organization. Halo Heroes would progress in such a way to tear down the walls between IT and business, and lead the new IT organization into place. The businesses should endeavour to accommodate virtual work habits with the physical work habits; this will enable the business and IT to work together.

### Cross Roads Model

The most interesting part of this book is the description of the Cross road model. The authors have elaborated this to a considerable extent that a business leader would implement such a process without second thoughts.

Imagine the days when Mark Zuckerberg had the idea of building a "hot or not" game for Harvard students, also called "Facemash". And then he went on to create "thefacebook.com" with the intention of creating a universal website that can connect people in the university. After expulsion and lawsuits he created the social networking site "Facebook" in 2004. Facebook has now become a global internet phenomenon from a Harvard social-networking website. This phenomenon, the authors' detail, is the Cross roads models.

Metaphorically the authors explain how nature feels the exuberance when lightening is about to strike as "ionization", where the Code Halos doesn't exist and the situation in the industry is ripe for its introduction. They continue to describe how a "spark" is like lighting the match, a small spark can ignite into a fire for the good or the bad, and likewise a small idea leads to the evolution of the Code Halo process. "Enrichment" is when the spark turns into a blaze, the Code Halo solutions scale up increasing the number of users and generating more data, building meaningful services and solutions. At "cross roads" is when the markets flip and the companies experience massive transitions. And "after cross roads" the companies set on an accelerated journey which is difficult to stop, be it negative or positive.

"There are decades where nothing happens; and then

there are weeks where decades happen" - Vladimir Lenin

The authors provide guidelines for the organizations to follow based on the Cross roads model, but each organization might have different requirements and also may prefer not to follow these.

According to the authors the business begins to realize that there is something strange, there is a "future of work", which has to begin with an "Action plan" which is the Ionization phase. The main reason that businesses do not "Ionize" is because there are voices in the organization pulling them back and there is no "will to innovate". The authors provide a set of actions that the businesses could undertake - beginning from preparing the organization for innovation, mapping its value chain, scanning the market for signs of Ionization, listening for new voices within the organization, and finally picking the Code Halo targets. Though there might be several ideas worth exploring in the organization the Code Halo target must be the one that delivers real impact.

When the innovations come to life a Spark is created. In this stage the authors advocate businesses to embrace mass personalization, build Code Halos around the main character of the progress and pilot and fine tune the business model. The challenge for the organizations here would be to pick the right Spark from the countless ideas available to them.

Once the Code Halo solutions are ready it must augment products and services to provide with meaningful information and data, this is the Enrichment stage, where the Spark turns into a blaze. Organizations learn during this stage, and algorithms develop with business analytics. At this stage the authors suggest a set of actions for the businesses - to provide a balanced focus of all the five elements of the Code Halo anatomy, to get the right data and user experience, to use the right metrics, to capture code and make meaning, and to expect the unexpected.

Code Halos: How the Digital Lives of People, Things, and Organizations are Changing the Rules of Business presents itself as a practical guide for business to participate in the ongoing digital revolution. It provides

the businesses with guidelines to change process and attitudes of the company.

With the blending of the virtual and physical world, every individual and businesses have lost their personal space. A new economy is being created. Similar to the previous economic models in the world, this economy will also develop in a scattered manner, bringing with it the opportunities to develop. This book helps this transition easier. It helps businesses see what is available for them and what awaits them in the future. It is no Bible to follow, but basic guidelines to adapt. The authors do not provide a path for success but show businesses that they could do much better, than they are doing right now, if they participate in the Code Halo economy. It is a series of recommendations that would help people and business successfully navigate through these new waters.

With innumerable examples the authors bring to the readers the importance of the growing digital economy, and the opportunities available. Though the book provides a model, and provides guidelines it needn't be accepted by the readers at its face value. The authors fail to explain the economic situations that the businesses must consider. Also, there is very limited mention about the expected competitions. When industries grow, it attracts new entrants, competitions grow. For this, the businesses must create strategic architecture for themselves, with core competencies, so that they could sustain and grow irrespective of the competitive environments.

The guidelines provided by the authors are too lengthy. The authors have also failed to realize that individual

decisions depend on perceived value - be it the firm or the customer. For example, the authors recommend "to deliver beautiful products and experiences", but "beauty" depends upon the individuals 'perspectives' and 'environment'. I doubt if such generalized statements can be provided as guidelines.

These criticisms aside, the authors provide an insightful thought into the future. Their ideas are systematic, far-fetched and exploratory in nature. As the authors mention businesses should aim at identifying the Code Halo opportunity, adopt the principles of the Code Halo strategy and implement the crossroads model. This book is a practical guide for businesses in the new digital economy.

This book would enable the managers to answer the questions posed by the authors in the beginning - "Did you see the technical change coming? And, if so, what did you do about it?"

But the managers must look beyond the recommendations that the book provides, to suit their requirements.

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