



Chapter 1

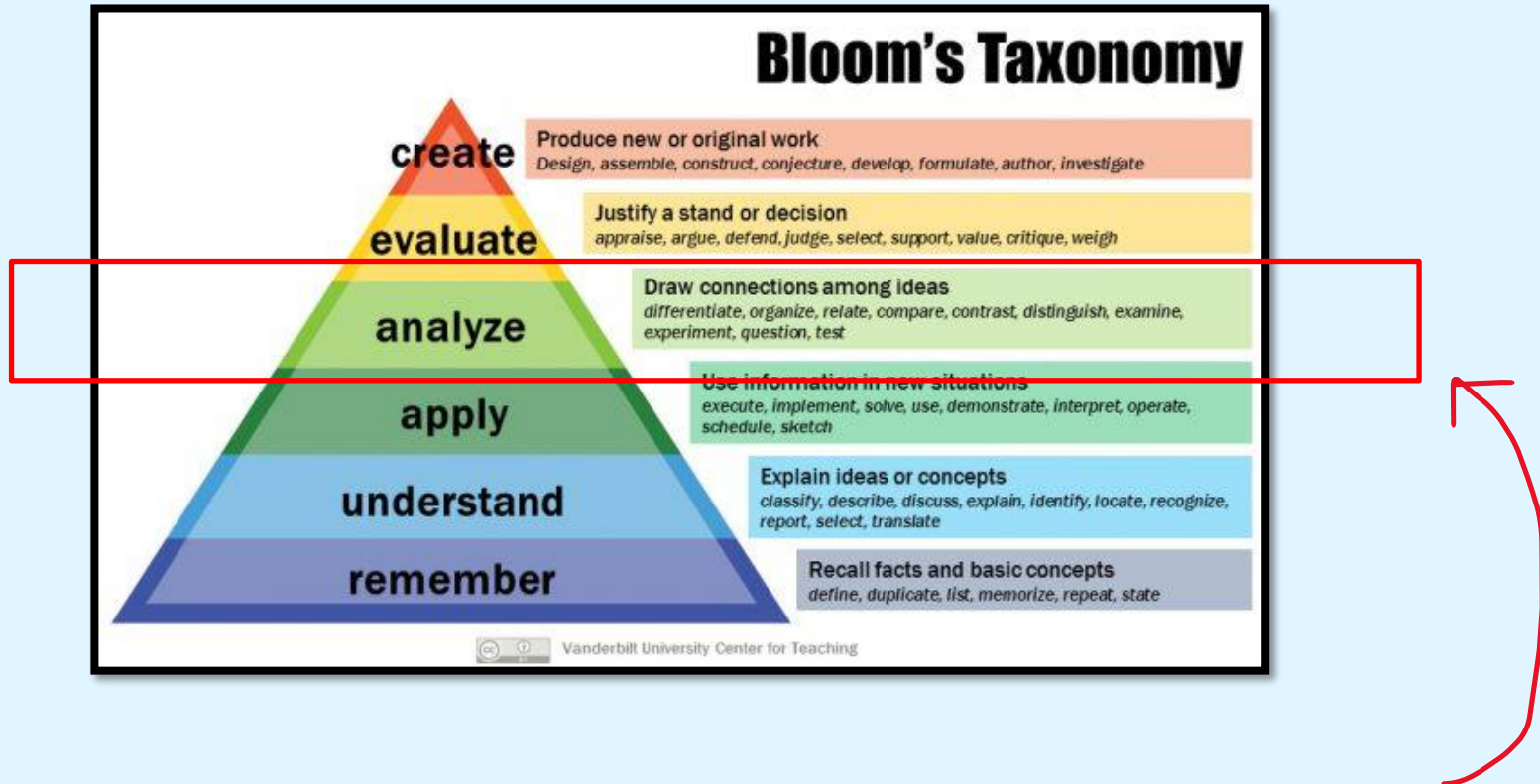
Introduction

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Questioning technique for SPI



CLO1: Illustrate the emergence of Internet and various technologies and its impacts, particularly of those social, legal, ethical and IT professionalism issues raised in computing. (C4, PLO2)

Introduction



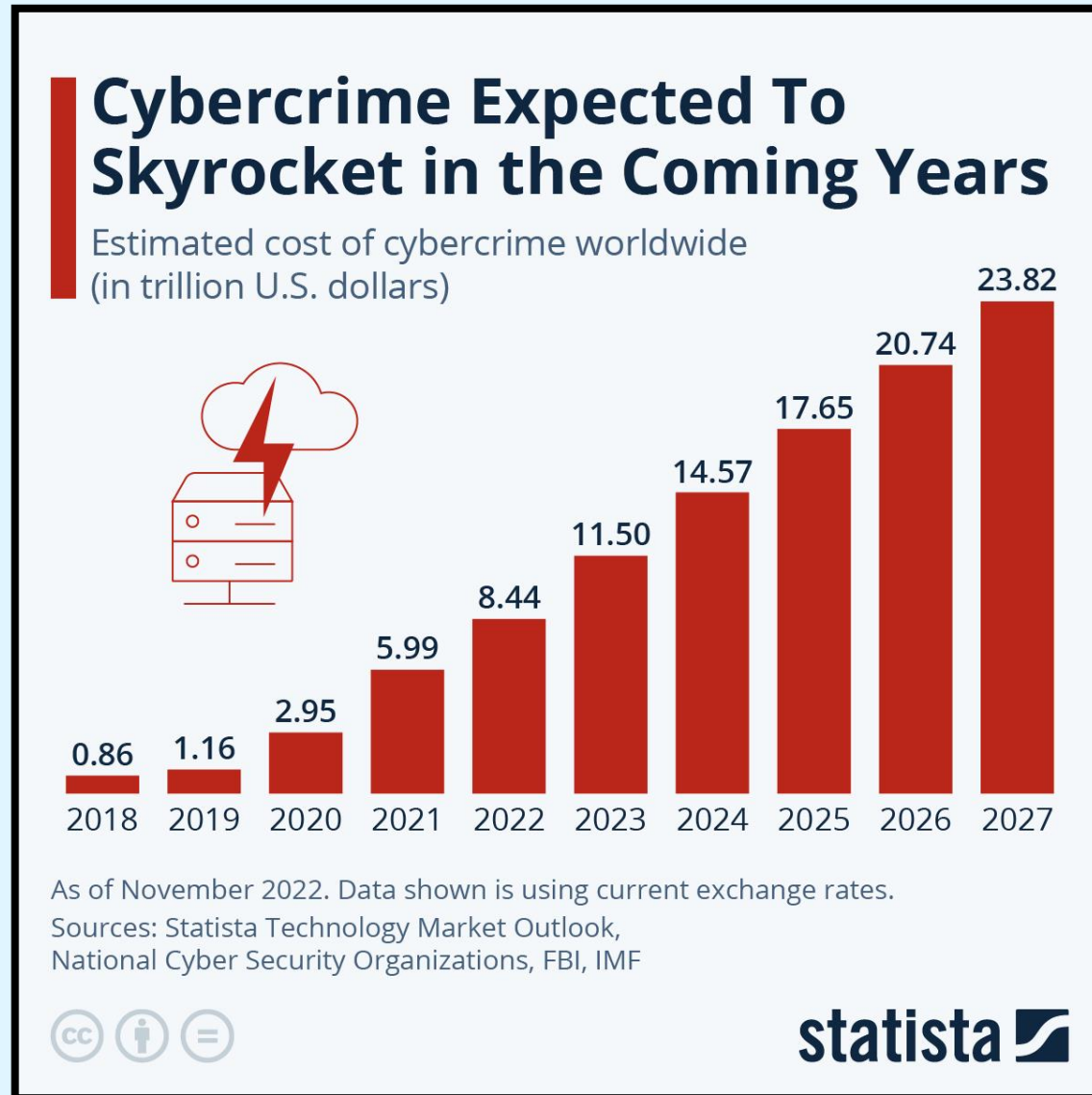
The Social and Professional module focuses on developing essential skills and competencies that are crucial for success in both personal and work environments.

This module aims to enhance individuals' abilities to navigate social interactions effectively, build meaningful relationships, and develop a professional mindset.

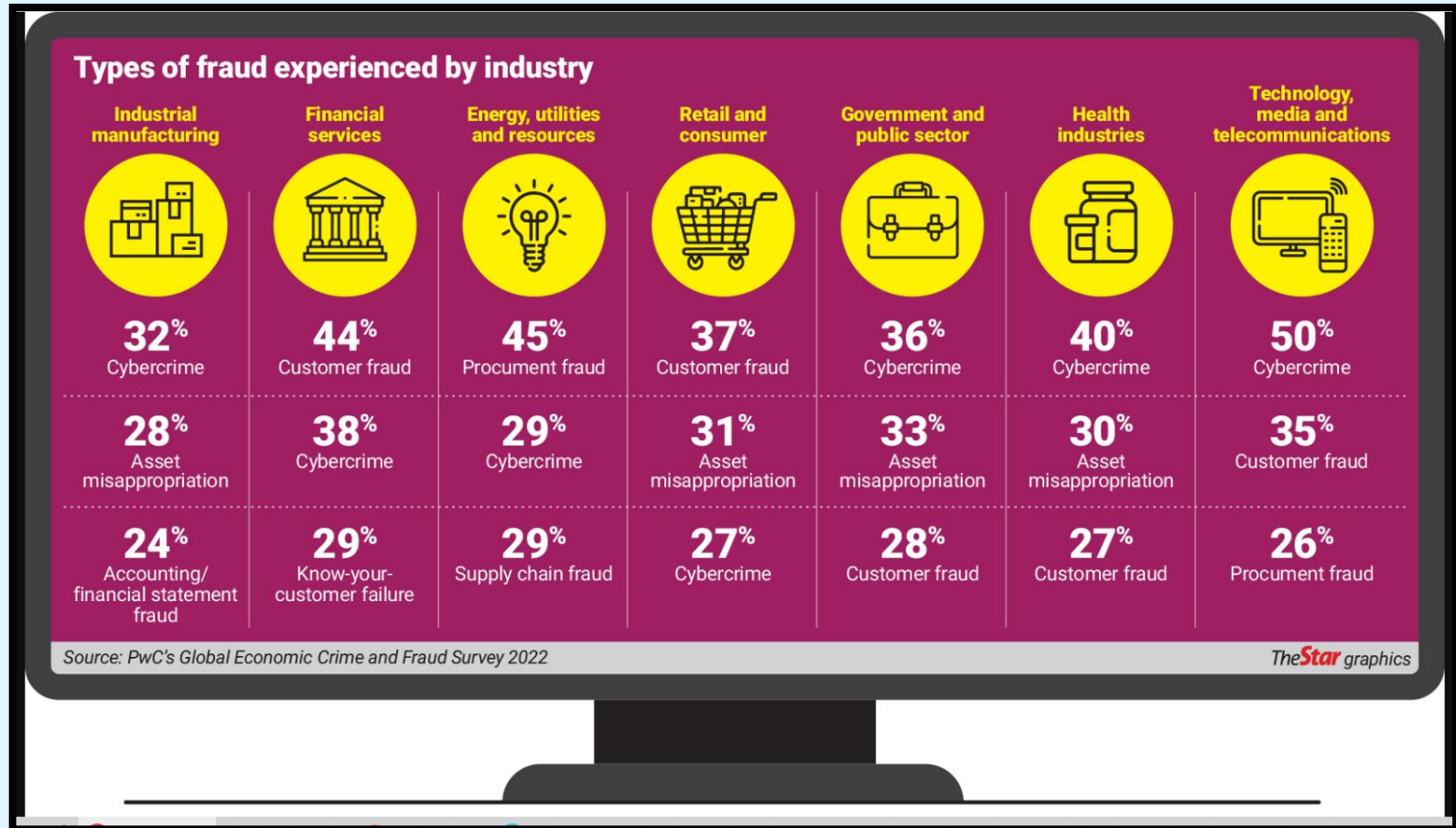
It covers a wide range of topics such as communication skills, teamwork, emotional intelligence, cultural competence, ethical decision-making, and professional ethics.

By engaging in activities and discussions within this module, individuals can gain a deeper understanding of themselves and others, enhance their interpersonal skills, and cultivate a professional demeanor that is essential for achieving personal and career goals.

Introduction: Concern of Cybercrime



Introduction: Concern of Cybercrime



Introduction: Social and professional Issues

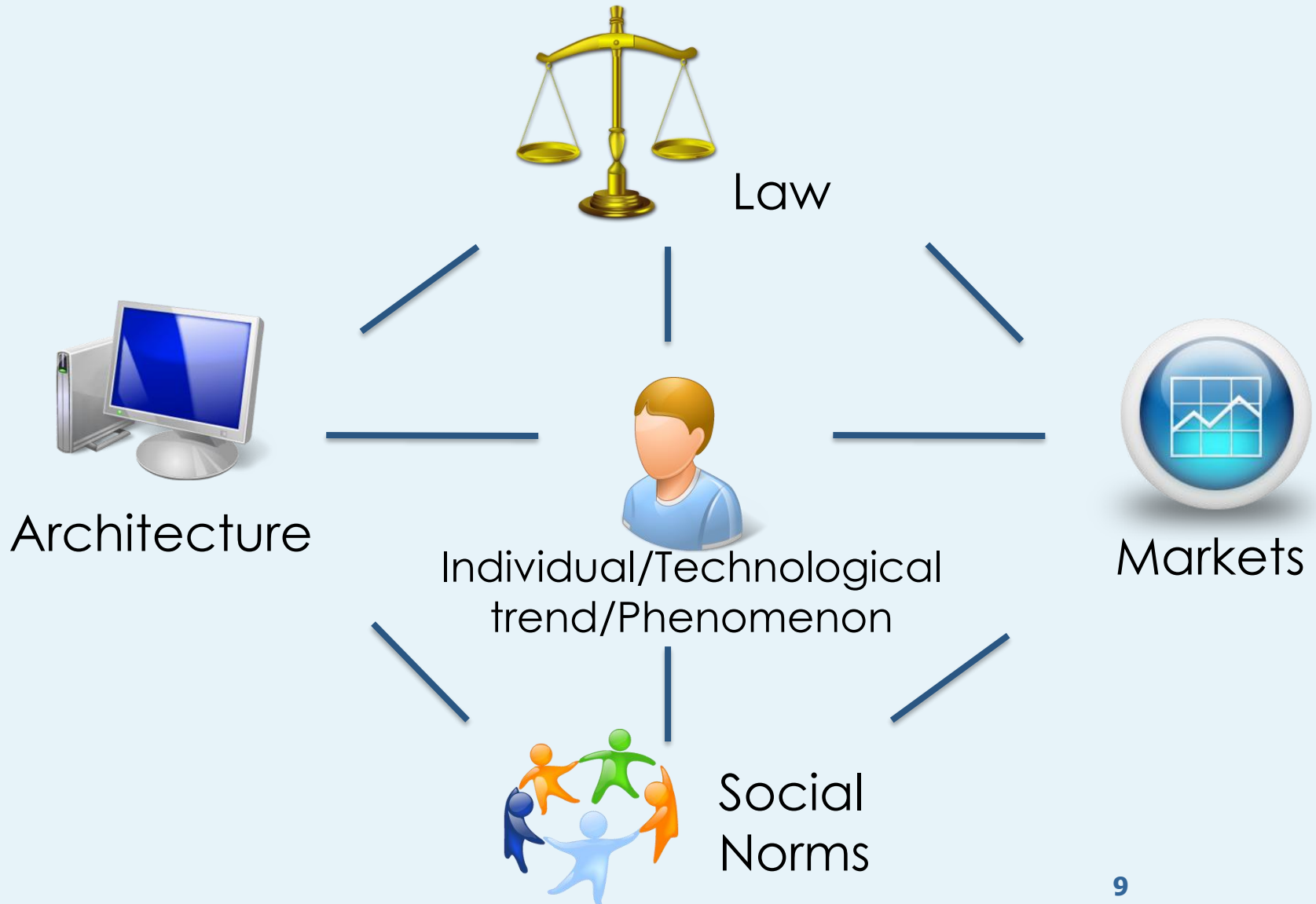


Studying social and professional issues prepares individuals to be informed and engaged citizens. It equips them with the knowledge and critical thinking skills necessary to analyze complex social and professional problems, evaluate evidence, and make informed decisions.

This empowers individuals to contribute to public discourse, advocate for social causes, and engage in civic participation, ultimately shaping a more inclusive and equitable society.

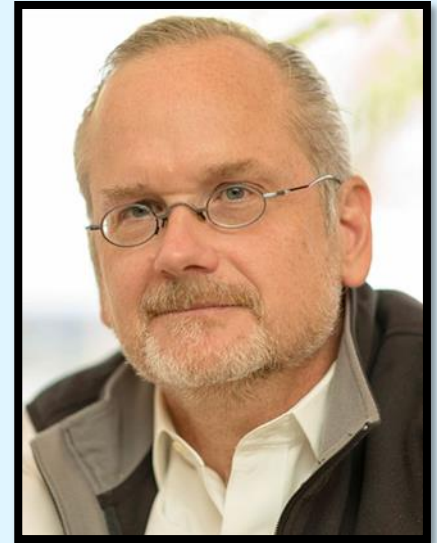
LESSIG'S FOUR MODALITIES ANALYSIS

Lessig's Four Modalities Analysis



Lessig's Four Modalities Analysis

- In his seminal 1999 book, Professor Lawrence Lessig described a means of considering how technology and human society interact.
- 4 interconnected influences on human behavior: law, social norms, markets and architecture
 - **Law**: expressed and enforced power of the state
 - **Social norms**: pressure put on by people we know
 - **Markets**: economic realities and how they influence behavior
 - **Architecture**: online architecture = computer code.



Source:
https://en.wikipedia.org/wiki/Lawrence_Lessig

Lessig's Four Modalities Analysis

Lessig's Four Modalities Analysis, also known as "Four Modes of Regulation," is a framework proposed by legal scholar Lawrence Lessig to understand and analyze the ways in which regulation and control operate in various realms of human activity, particularly in the context of the digital age.



Lessig's Four Modalities Analysis

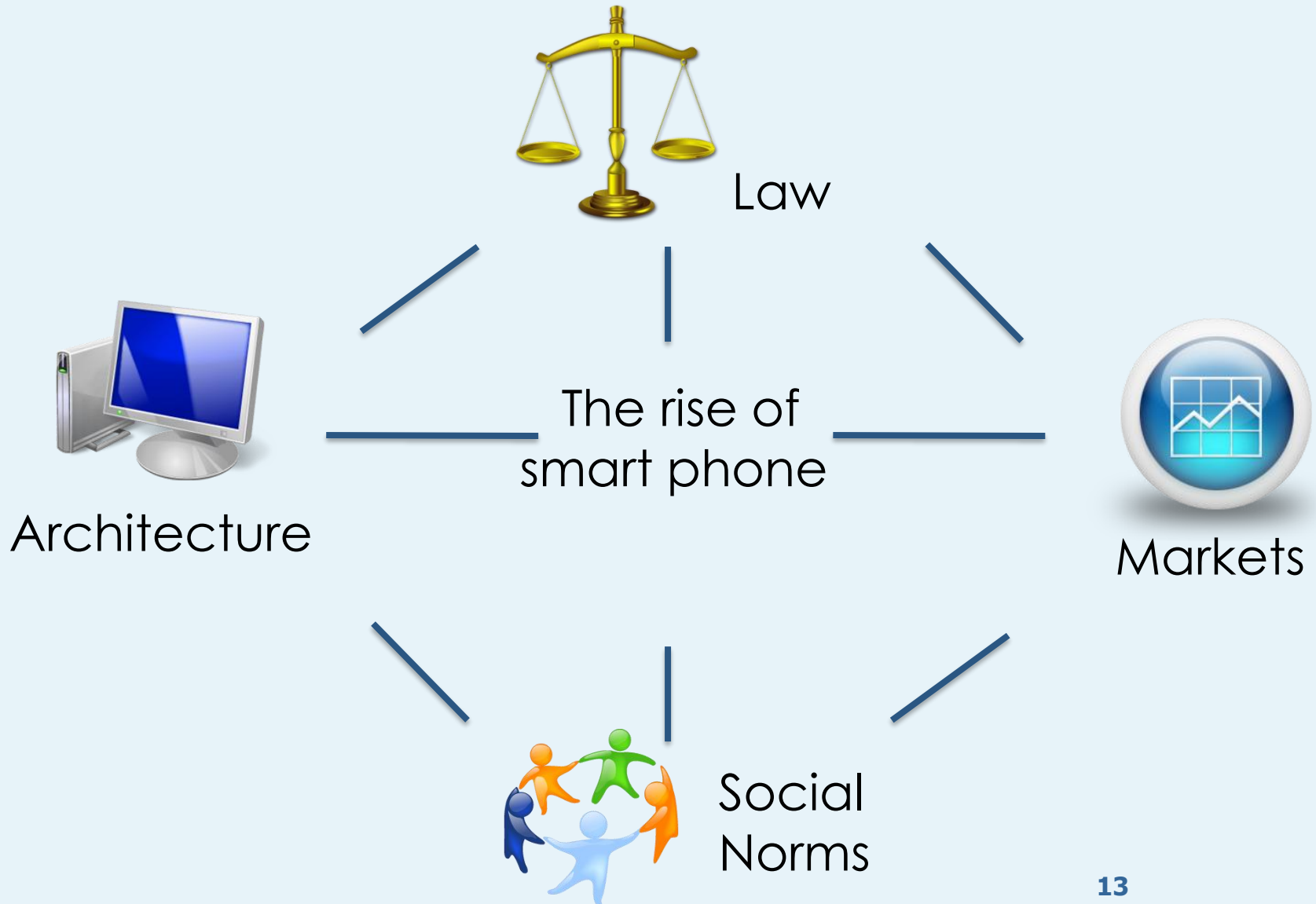
Law: The first modality is "law," which refers to traditional forms of regulation enforced through legislation and the legal system. Laws set rules and boundaries that individuals and organizations must abide by, and violations can result in legal consequences. In the digital realm, laws may cover areas such as intellectual property rights, privacy, cybersecurity, and online harassment.

Social Norms: The second modality is "social norms," which are unwritten rules and expectations that govern behavior within a particular community or society. Social norms emerge from the collective values, beliefs, and practices of a group of individuals. In the digital context, social norms can influence behaviors related to online etiquette, netiquette, and acceptable norms of conduct within digital communities.

Market: The third modality is the "market," which refers to the mechanisms of economic exchange and regulation driven by supply and demand. In the digital landscape, market forces play a significant role in shaping behaviors and choices. For example, intellectual property rights are often enforced through market mechanisms, where copyright holders license their works and individuals pay for access.

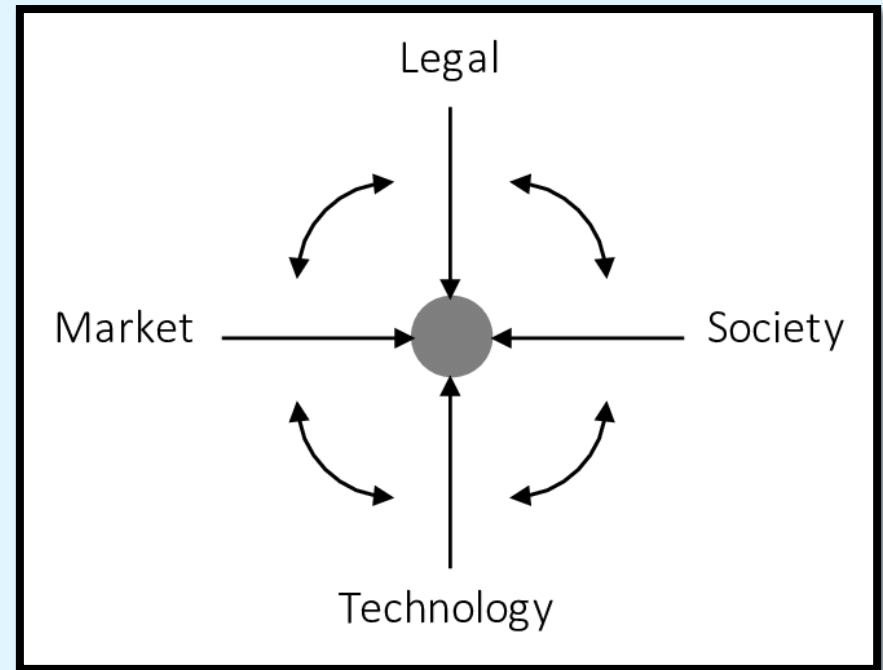
Architecture/Technology: The fourth modality is "architecture" or "technology," which involves the design of physical or digital systems and platforms that shape and control behavior. The technological infrastructure can enable or restrict certain actions, influencing how people interact with information, platforms, and each other. Digital technologies, such as software, algorithms, and network protocols, can have significant impacts on individual behaviors and societal norms.

Lessig's Four Modalities Analysis



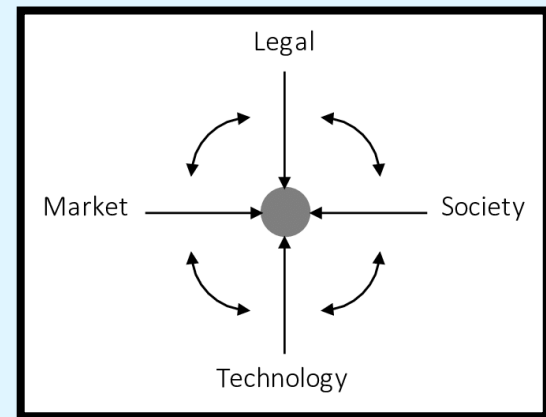
Lessig's Four Modalities Analysis

- Each of these influences interacts with the others and puts pressure on the individual.
- Each is also acted on by society as a whole.



Application of Lessig's Four Modalities Analysis

The smart phone is an invention that has emerged in this new millennium. Explain its impact using Lawrence Lessig's Four Modalities Analysis.





GLOBALIZATION

Globalization



Globalization refers to the increasing interconnectedness and integration of economies, societies, and cultures worldwide. It is driven by advancements in technology, communication, and transportation, which have facilitated the flow of goods, services, capital, information, and ideas across borders.

Globalization has led to the expansion of international trade, foreign direct investment, and the establishment of global supply chains. It has also fostered the exchange of knowledge, cultural diversity, and the intermingling of people from different parts of the world. While globalization has created opportunities for economic growth, innovation, and cultural exchange, it has also brought challenges such as income inequality, environmental concerns, and cultural homogenization.

The impact of globalization varies across different countries and sectors, shaping economies, societies, and individuals in complex and interconnected ways.

Globalization - Benefits



1. Increased economic opportunities
2. Access to a wider variety of goods and services
3. Job creation and employment opportunities
4. Technological advancements and innovation
5. Cultural exchange and diversity
6. Improved standards of living in some regions
7. Enhanced communication and information sharing
8. Access to global markets and increased export opportunities
9. Collaboration and cooperation between countries
10. Increased foreign investment and economic growth

Globalization - Harms



Economic inequality and disparities

Exploitation of labor and workers' rights violations

Environmental degradation and unsustainable practices

Loss of cultural identity and cultural homogenization

Dependency on foreign economies and vulnerability to global economic downturns

Social and cultural tensions due to increased migration and cultural clashes

Threats to local industries and small businesses

Unequal distribution of benefits and resources among countries

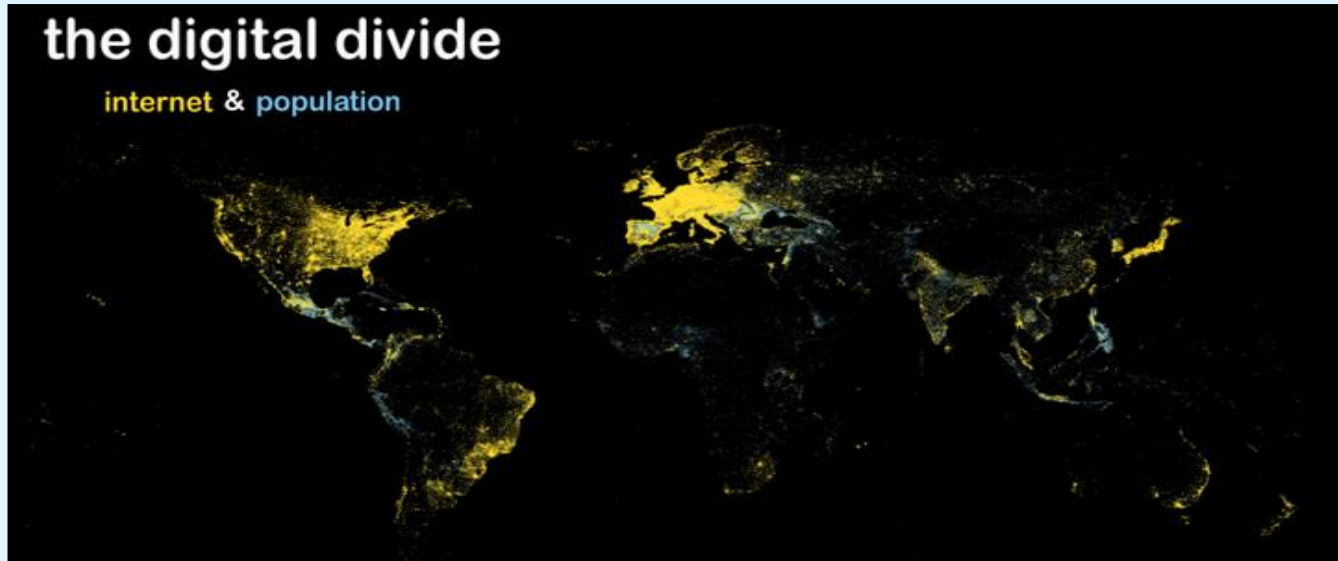
Financial crises and instability in global markets

Loss of national sovereignty and control over domestic policies.

Globalization and its effects on developing countries.



THE DIGITAL DIVIDE



The digital divide refers to the gap between individuals and communities who have access to digital technologies and the internet and those who do not.

It encompasses disparities in access to devices such as computers, smartphones, and broadband internet connections, as well as differences in digital literacy and skills. The digital divide can be influenced by various factors, including socioeconomic status, geographic location, age, gender, and educational opportunities.

The Digital Divide

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ESSENTIAL DIGITAL HEADLINES

OVERVIEW OF THE ADOPTION AND USE OF CONNECTED DEVICES AND SERVICES



TOTAL
POPULATION



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8.03
BILLION

URBANISATION

57.2%

UNIQUE MOBILE
PHONE SUBSCRIBERS



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5.48
BILLION

vs. POPULATION

68.3%

INDIVIDUALS USING
THE INTERNET



KEPIOS

5.18
BILLION

vs. POPULATION

64.6%

SOCIAL MEDIA
USER IDENTITIES



4.80
BILLION

vs. POPULATION

59.9%

10

SOURCES: UNITED NATIONS; GOVERNMENT BODIES; GSMA INTELLIGENCE; ITU; WORLD BANK; EUROSTAT; CNNIC; NIELSEN; CIA WORLD FACTBOOK; COMPANY ADVERTISING RESOURCES AND EARNINGS REPORTS; OECD; BETA RESEARCH CENTER; KEPIOS ANALYSIS. **ADVISORY:** SOCIAL MEDIA USER IDENTITIES MAY NOT REPRESENT UNIQUE INDIVIDUALS. **COMPARABILITY:** SIGNIFICANT REVISIONS TO SOURCE DATA, INCLUDING COMPREHENSIVE REVISIONS TO POPULATION DATA. FIGURES ARE NOT COMPARABLE WITH PREVIOUS REPORTS. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE [NOTES ON DATA](#) FOR FULL DETAILS.

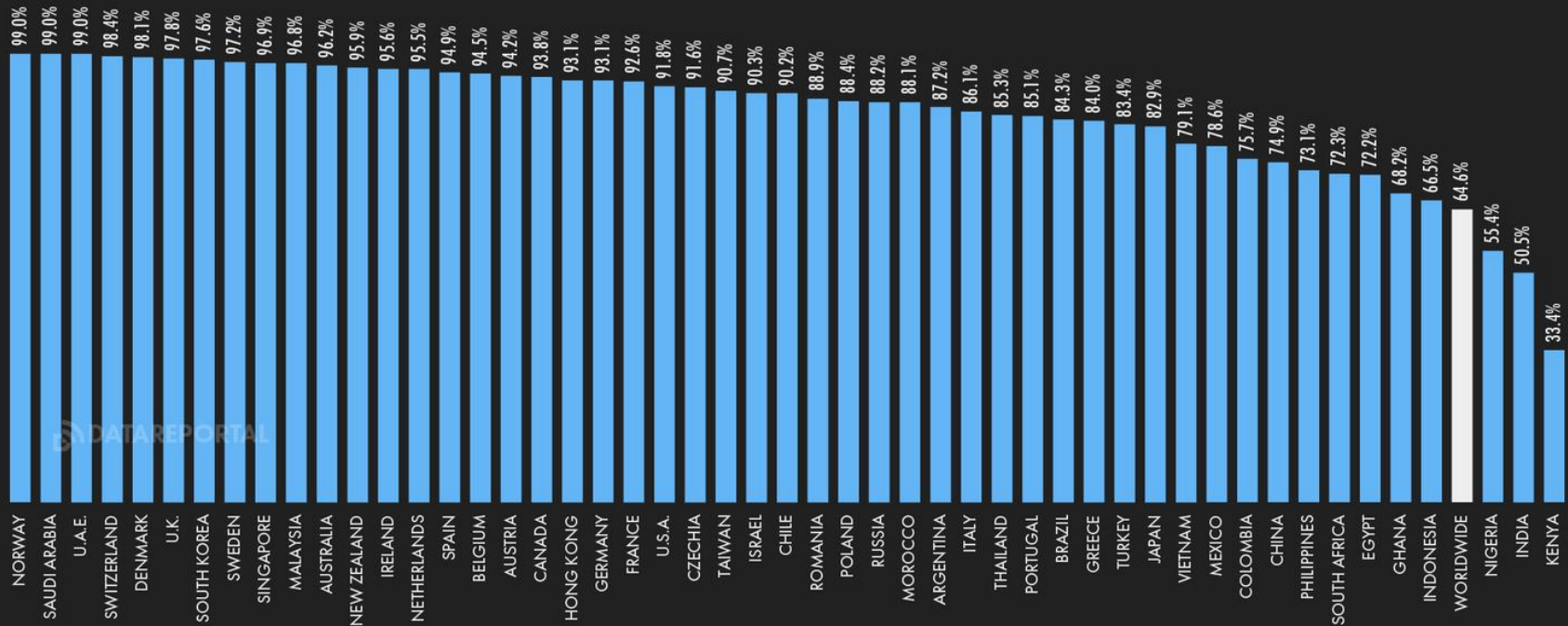
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INTERNET ADOPTION

INDIVIDUALS USING THE INTERNET AS A PERCENTAGE OF TOTAL POPULATION



22

SOURCES: KEPIOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; NIELSEN; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. **NOTE:** VALUES HAVE BEEN CAPPED AT 99% OF THE TOTAL POPULATION. **COMPARABILITY:** SOURCE AND BASE CHANGES. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE [NOTES ON DATA](#) FOR DETAILS.

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UNCONNECTED POPULATIONS

COUNTRIES AND TERRITORIES WITH THE LARGEST UNCONNECTED POPULATIONS AND THE LOWEST LEVELS OF INTERNET ADOPTION



ABSOLUTE: LARGEST UNCONNECTED POPULATIONS

#	LOCATION	UNCONNECTED INDIVIDUALS	% OF POP. OFFLINE
01	INDIA	705,323,000	49.5%
02	CHINA	358,320,000	25.1%
03	PAKISTAN	151,524,000	63.3%
04	BANGLADESH	105,376,000	61.1%
05	ETHIOPIA	104,735,000	83.3%
06	NIGERIA	99,305,000	44.6%
07	INDONESIA	92,837,000	33.5%
08	DEM. REP. OF THE CONGO	78,202,000	77.1%
09	TANZANIA	45,768,000	68.4%
10	KENYA	36,535,000	66.6%

RELATIVE: LOWEST LEVELS OF INTERNET ADOPTION

#	LOCATION	% OF POP. OFFLINE	UNCONNECTED INDIVIDUALS
01	NORTH KOREA ¹	>99.9%	[BLOCKED]
02	SOUTH SUDAN	92.8%	10,253,000
03	SOMALIA	90.0%	16,206,000
04	BURUNDI	89.7%	11,791,000
05	CENTRAL AFRICAN REPUBLIC	89.4%	5,097,000
06	ETHIOPIA	83.3%	104,735,000
07	AFGHANISTAN	81.6%	34,237,000
08	MADAGASCAR	80.3%	24,197,000
09	CHAD	78.9%	14,313,000
10	MOZAMBIQUE	78.9%	26,540,000

SOURCES: KEPIOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; NIELSEN; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. **NOTES:** FIGURES IN THE "% OF POP. OFFLINE" COLUMN REPRESENT THE PERCENTAGE OF THE POPULATION THAT DOES NOT YET USE THE INTERNET. ABSOLUTE VALUES HAVE BEEN ROUNDED TO THE NEAREST THOUSAND. (1) THE INTERNET (AT LEAST AS THE REST OF THE WORLD KNOWS IT) REMAINS BLOCKED FOR EVERYDAY CITIZENS IN NORTH KOREA. **COMPARABILITY:** SOURCE AND BASE CHANGES. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE [NOTES ON DATA](#) FOR DETAILS.

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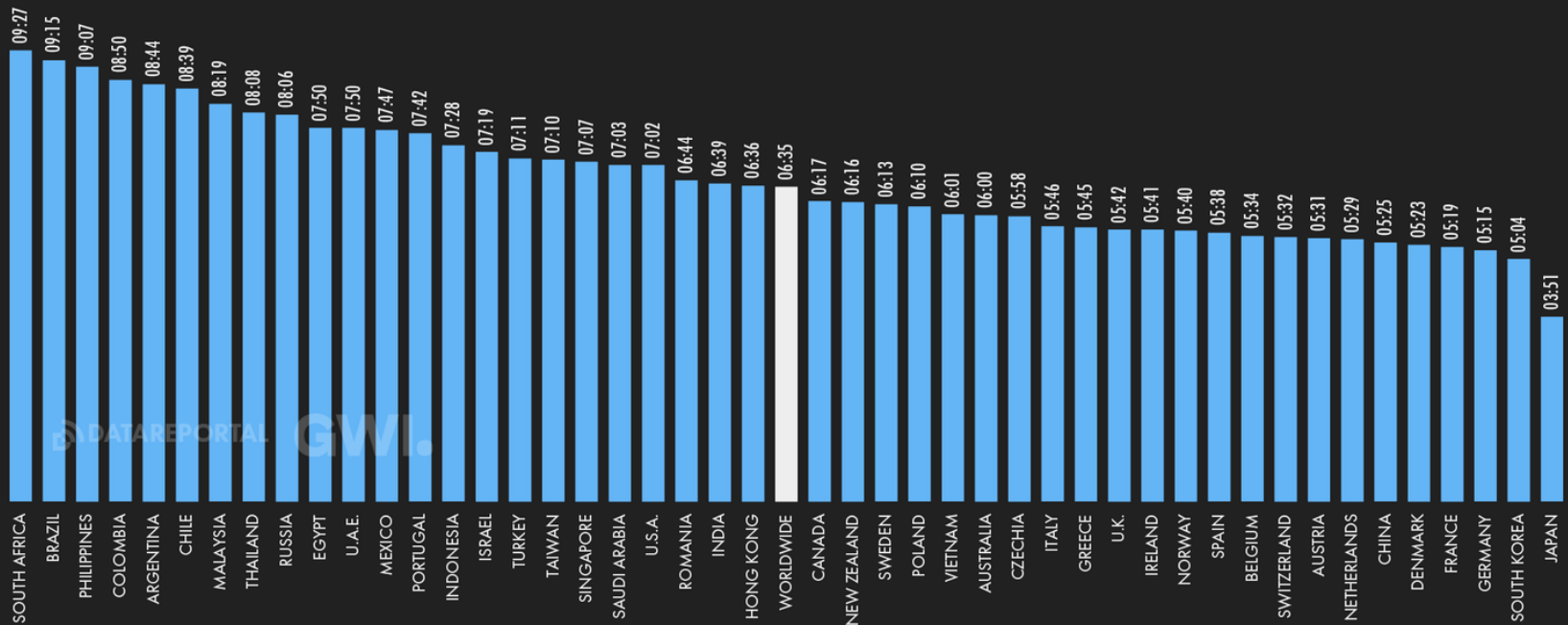
DAILY TIME SPENT USING THE INTERNET

AVERAGE AMOUNT OF TIME (IN HOURS AND MINUTES) THAT INTERNET USERS AGED 16 TO 64 SPEND USING THE INTERNET EACH DAY ON ANY DEVICE

NOTE: GWI HAVE REVISED THEIR METHODOLOGY. PLEASE READ THE IMPORTANT NOTES ON COMPARING DATA AT THE START OF THIS REPORT BEFORE COMPARING DATA ON THIS CHART WITH PREVIOUS REPORTS



GLOBAL OVERVIEW



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SOURCE: GWI (Q4 2022). FIGURES REPRESENT THE FINDINGS OF A BROAD GLOBAL SURVEY OF INTERNET USERS AGED 16 TO 64. SEE [GWI.COM](https://www.gwi.com) FOR FULL DETAILS. COMPARABILITY: STARTING WITH THEIR Q4 2022 WAVE OF RESEARCH, GWI INTRODUCED A REVISED SURVEY METHODOLOGY THAT RESULTED IN A DECLINE IN VALUES FOR A WIDE VARIETY OF DATA POINTS. AS A RESULT, DATA POINTS ON THIS CHART MAY NOT BE DIRECTLY COMPARABLE WITH SIMILAR DATA POINTS PUBLISHED IN PREVIOUS REPORTS.

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Digital Divide



End