Analysis of Global Internet Usage Trends

Programming for Data Analytics 04638-A

Introduction

This presentation explores the global internet usage trends from 2000 to 2021, using data sourced from the United Nations[1].

Objectives

1. Understand the dataset

2. Define analytics objectives

3. Analyze variables and their relationships

4. Prepare and clean the data

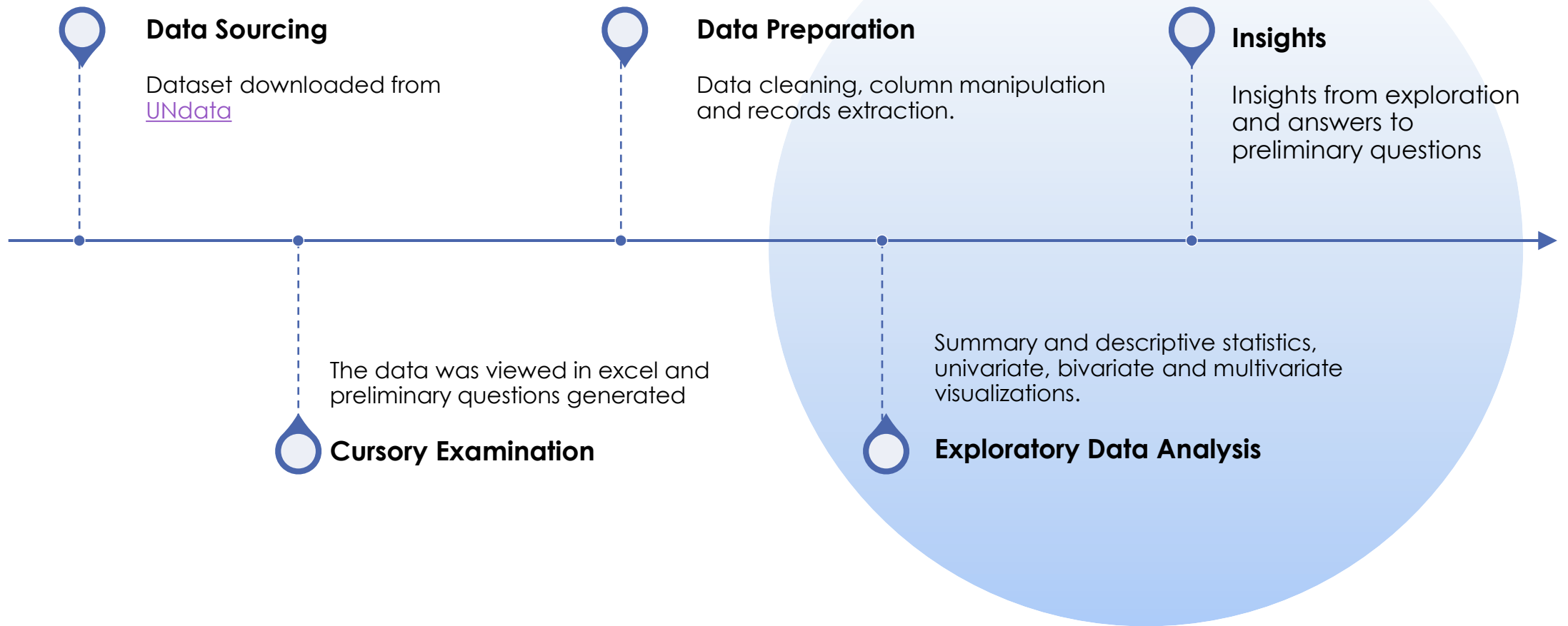5. Perform in-depth exploratory analysis

6. Communicate key insights

1. https://data.un.org/_Docs/SYB/CSV/SYB66_314_202310_Internet%20Usage.csv

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Analysis Process

Data Sourcing

Dataset downloaded from UNdata

Cursory Examination

The data was viewed in excel and preliminary questions generated

Data Preparation

Data cleaning, column manipulation and records extraction.

Exploratory Data Analysis

Summary and descriptive statistics, univariate, bivariate and multivariate visualizations.

Insights

Insights from exploration and answers to preliminary questions

Preliminary Questions

1. What is the average internet usage percentage for all countries

2. How does the data distribution of internet usage percentages change over the years

3. How has the global percentage of individuals using the internet changed over time.

4. Which regions or countries have shown the most significant increase in internet usage

5. Are there any notable outliers in terms of internet usage, and what factors might contribute to their exceptional status
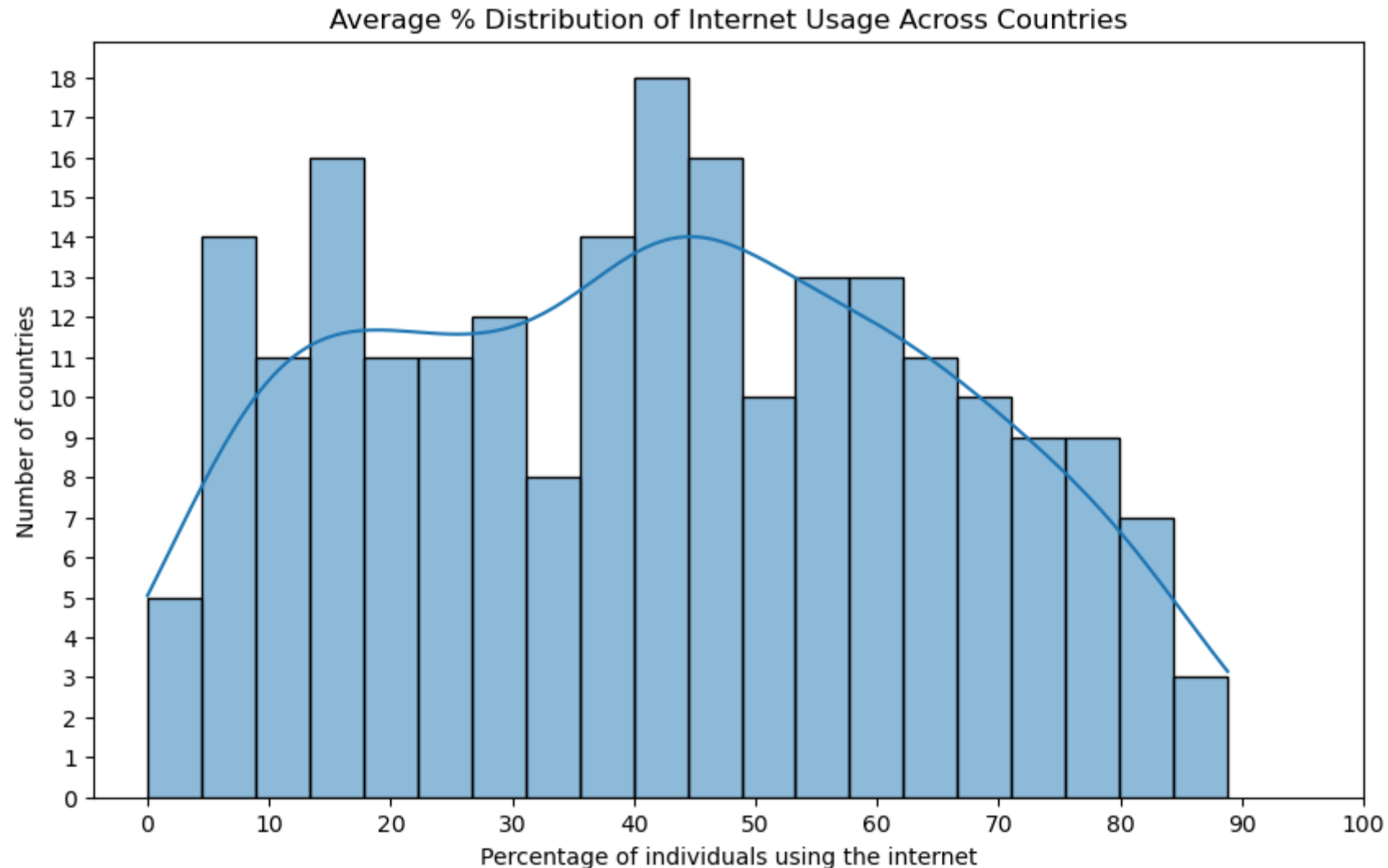
Data structure

Unique id	Predefined countries/region	Record's year	% of individuals

idx	region_country_area	year	value
84	Belize	2000	6.0
788	Tunisia	2020	72.8
496	Mongolia	2021	84.3

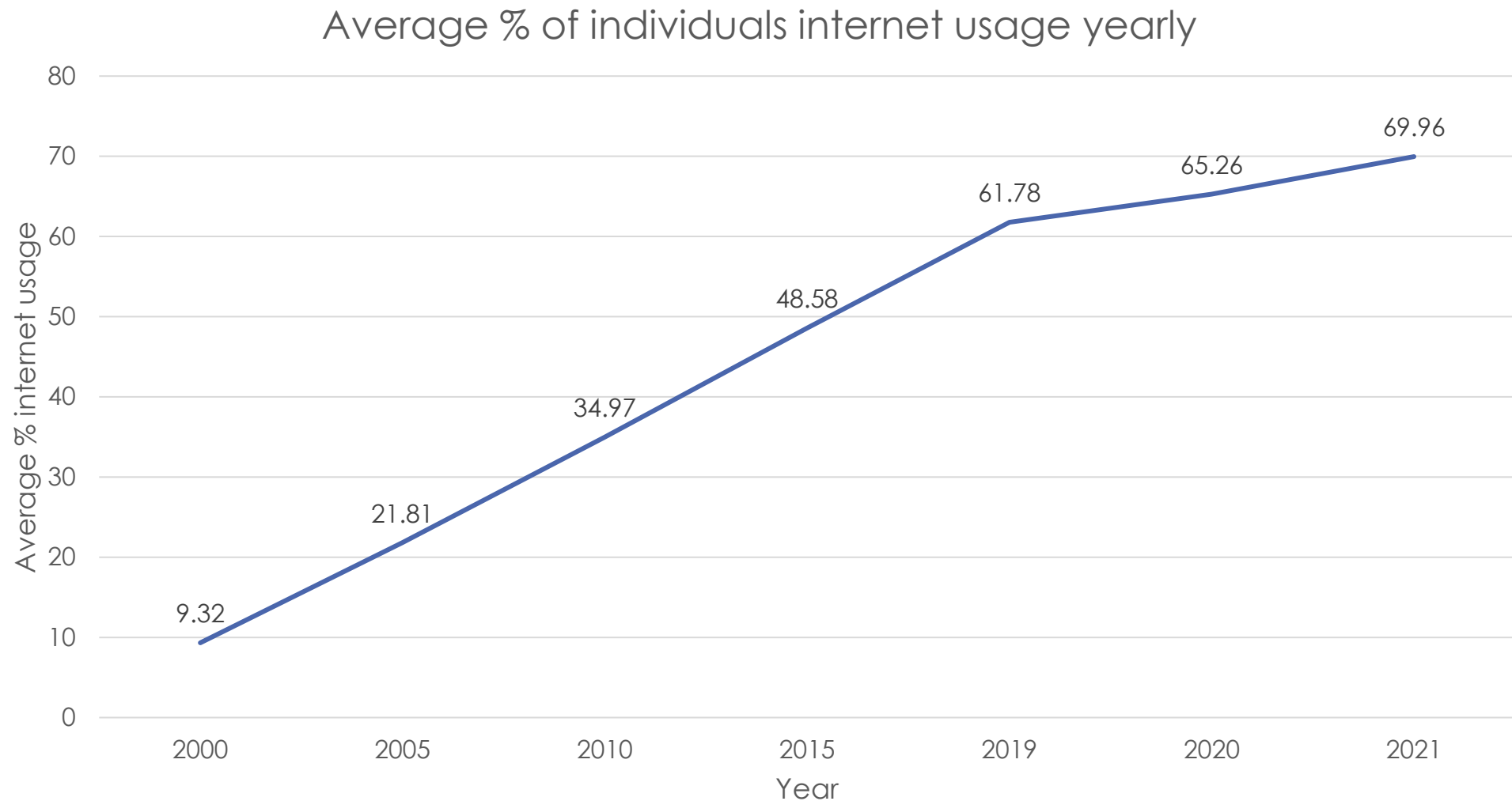# What is the average internet usage percentage for all countries

With a total of **1,382** entries and values ranging from **0% to 100%** the average percentage internet usage across all countries is **43.27%.**

measure	value
count	1382.00
mean	43.27
min	0.0
max	100.0
std	32.79

How does the data distribution of internet usage percentages change over the years

Average % Distribution of Internet Usage Across Countries

How has the global percentage of individuals using the internet changed over time.
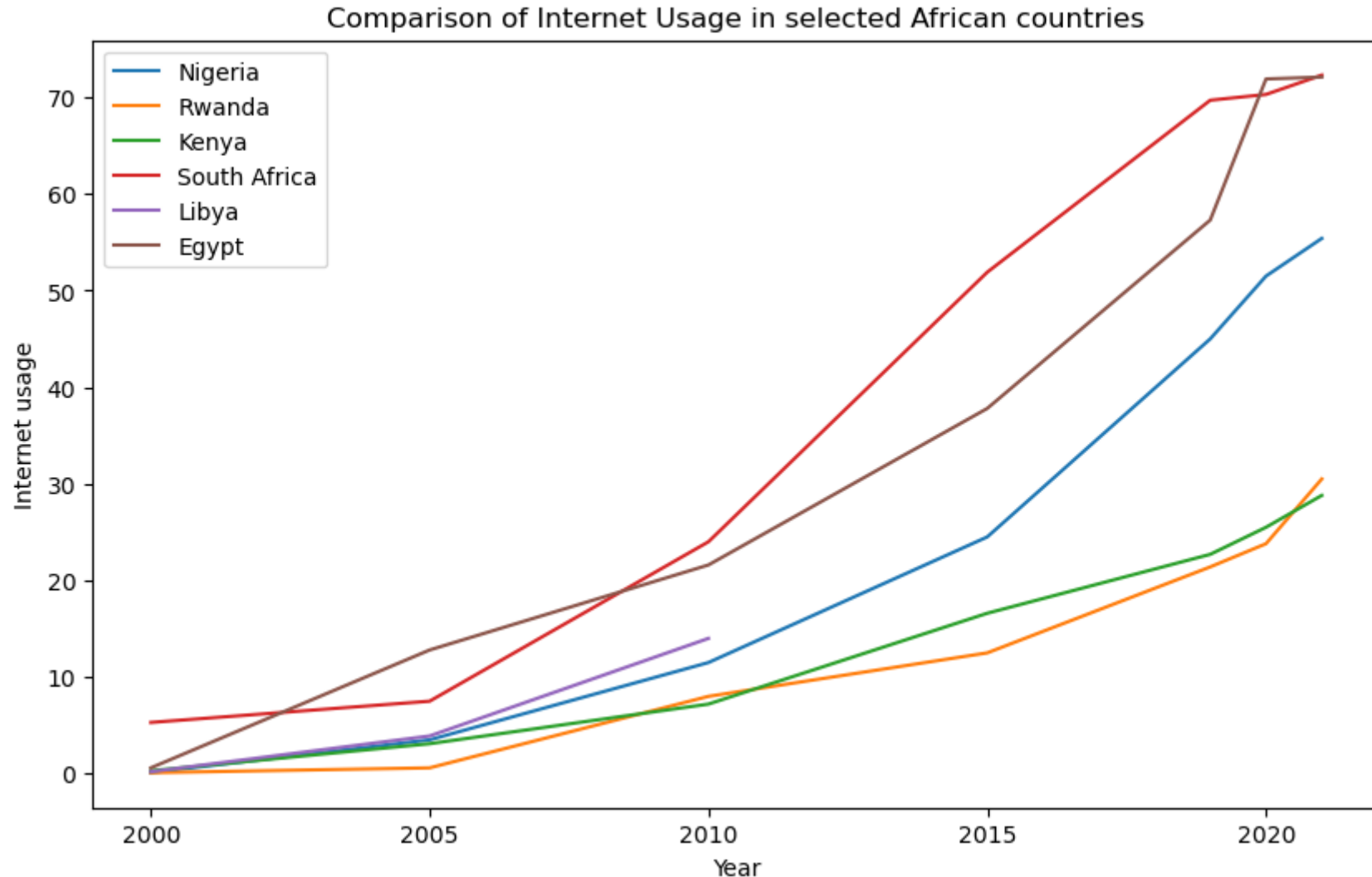
Average % of individuals internet usage yearly

Which regions or countries have shown the most significant increase in internet usage

Top 10 countries with the highest average growth rate

Country	Avg. Growth Rate
Tajikistan	19.15
Azerbaijan	14.09
Albania	11.02
Libya	10.54
Sudan	9.51
Myanmar	7.91
Viet Nam	7.3
Yemen	7.11
Timor-Leste	7.02
Nigeria	6.41

Are there any countries or regions that show unusually high or low internet adoption rates compared to their neighbors or global averages

Comparison of Internet Usage in selected African countries

Thank you