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WORLD VIRTUAL CONNECTEDNESS INDEX 2017

CfDS
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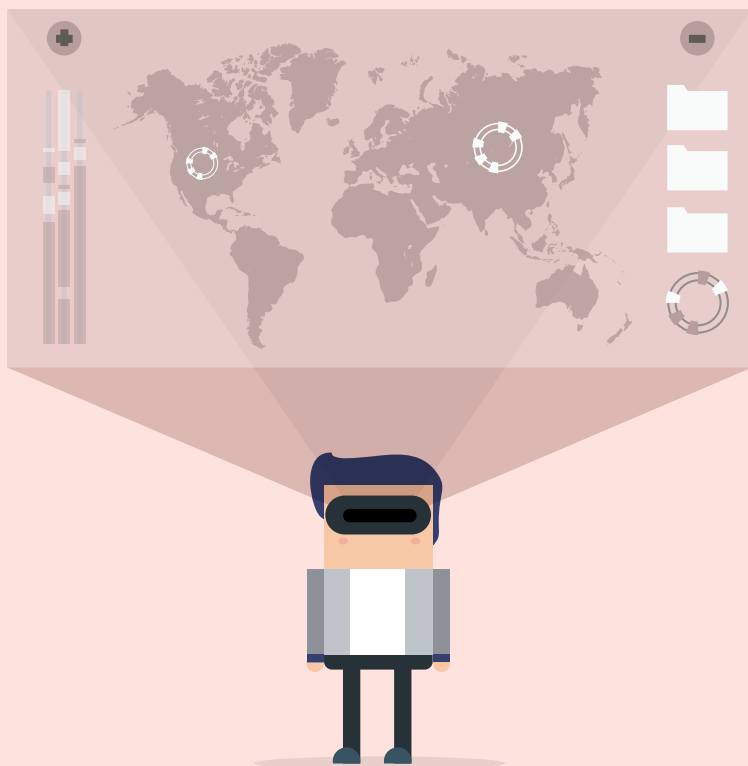
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■ F O R E W O R D

World Virtual Connected Index is a secondary research in the subject of digital society which aimed to find the relations between the two components that is social media platforms and governance. This research is initiated by the needs to observe the ongoing phenomenon of social media users and digital media which are being used by the government of a country. More importantly, this research is our bi-annual renewal of similar research that Center for Digital Society had conducted in 2015.

INDEXES ' CONTENT

Virtual Popularity Index

This index is compiled through the degree of popularity coming from the Head of the State and state itself.

This index consisted two components:

1. Institutional virtual popularity (state)
2. Individual virtual popularity (head of state)

This popularity refers to the search counts coming from Google, Youtube, and the number of word counts on their Wikipedia page.



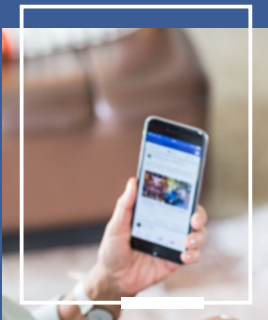
Virtual Connectedness: Social Media

This index is created through the level of connectivity which the Head of State conveys on his/her social media account.

The social media platforms which we took to this research are Facebook and Twitter.

Aspects which affect the connectivity:

1. Posting frequency
2. The level of interactions with other users
3. The number of followers on each Social media platform.

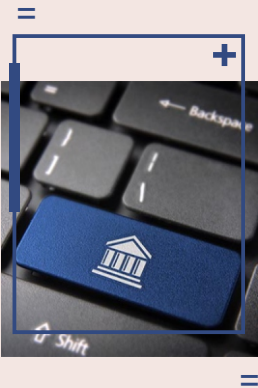


Virtual Connectedness: Website

This index depicted the connectivity of the state's official website.

The components which were looked upon on the official website:

- 1. The number of visitors and site's traffic from domestic and international visitors.
- 2. The website's global rank.



RESEARCH OBJECTIVES

- To observe and understand the current social media trends and virtual communication as part of digital governance.
- Providing a set of new perspective and knowledge in the digital media studies.
- Supplying data sets which are pertinent in supporting the current phenomenon of virtual media instruments from the governmental sector.

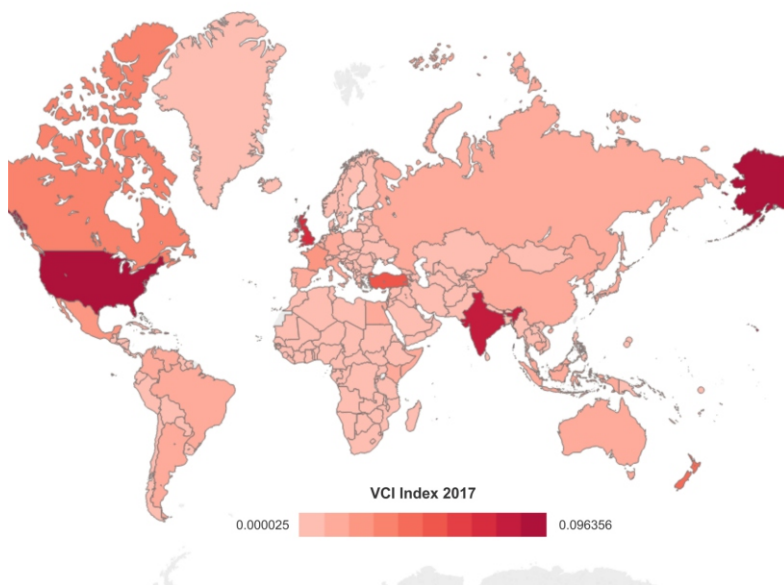
RESEARCH METHODOLOGY

To gain the *Virtual Connectedness Index* (VCI), the research applied this formula:

$$(VPI \times 50\%) + [(VCsm + VCws) \times 50\%]$$

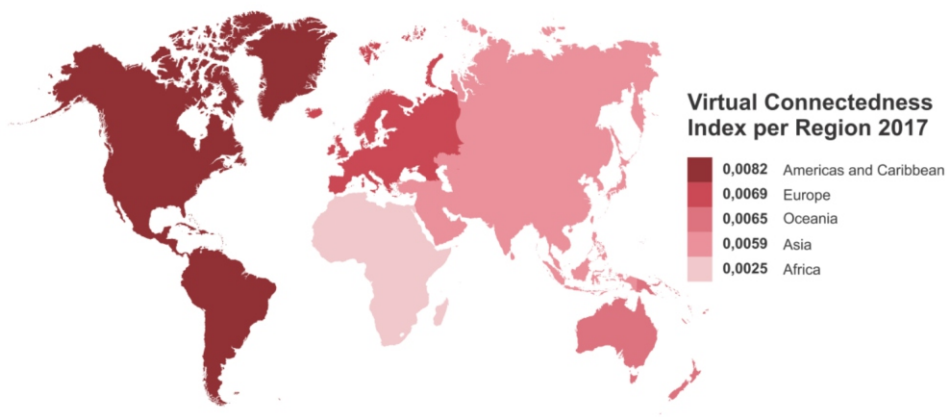


Index value: 0 (weak) ----- 1 (strong)



Through this illustration, it becomes clear to conclude that while some countries are prompt in using digital platforms into their governance; this has not become a

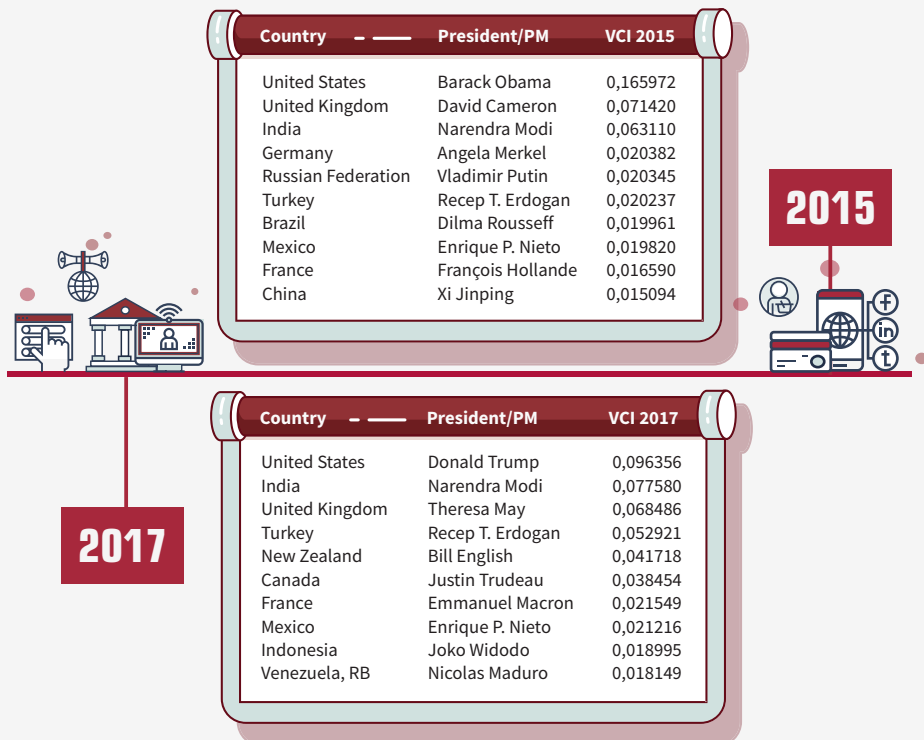
global trend. The index made it visible for the research to see an underlying contrast of state-initiated social media usage in different countries.



COUNTRIES' RANKS IN VIRTUAL CONNECTEDNESS INDEX 2015 & 2017

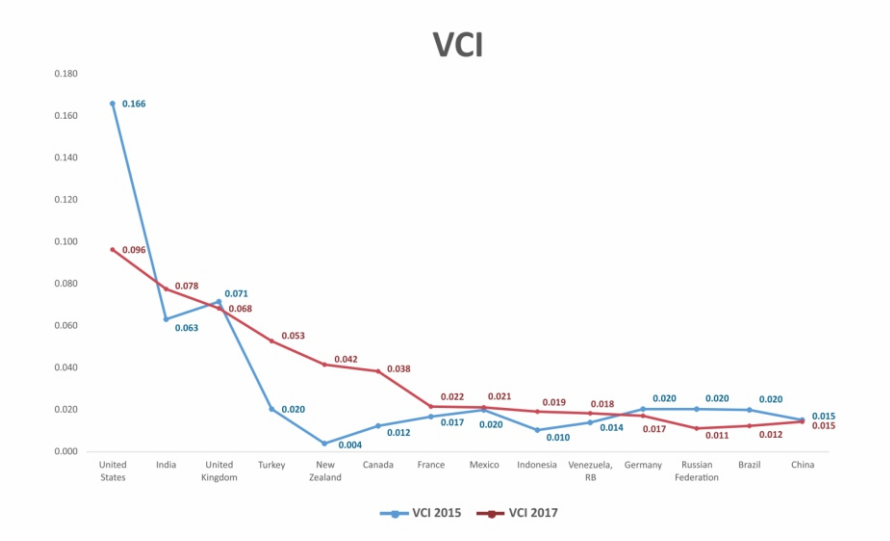


TOP 10 COUNTRIES IN VIRTUAL CONNECTEDNESS INDEX



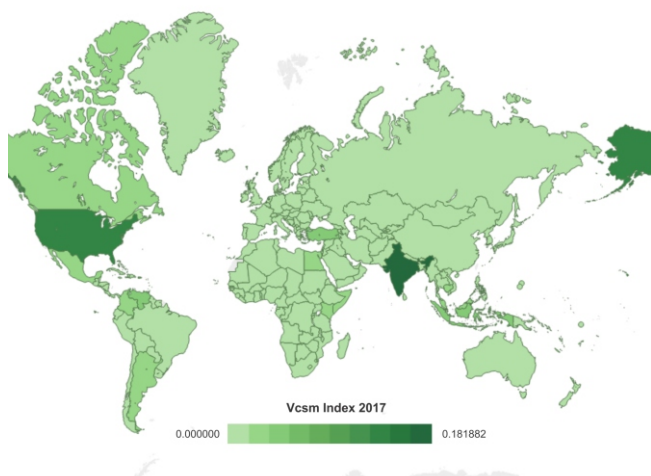
The tables provide a clear comparison of data which we obtained in 2015 and 2017, while various factors support these changes we can see new countries appearing on the 2017 index which did not appear on 2015. The newcomers include New Zealand, Venezuela, Indonesia, and Canada.

There are also some leadership changes which must be underlined. In addition to that while some countries have drastically become more popular in the last two years, we can see that despite being on the top of the list United States' index value has decreased from 2015 to 2017.



This direct comparison illustrated the distinctions of each country's VCI status in 2015 and 2017. While some countries remained persistent with their index values, we can see drastic changes appeared by the United States with 0,07 points. Moreover, countries such as Turkey and New Zealand have increased steadily with 0,033 and 0,038 additional points in 2017.





MOST ACTIVE WORLD LEADERS ON SOCIAL MEDIA

2015			2017		
Country	President/PM	VCsm Index	Country	President/PM	VCsm Index
United States	Barack Obama	0,274688	India	Narendra Modi	0,181882
India	Narendra Modi	0,123915	United States	Donald Trump	0,142739
Turkey	Recep T. Erdogan	0,040125	Turkey	Recep T. Erdogan	0,045279
Mexico	Enrique P. Nieto	0,025987	Venezuela, RB	Nicolas Maduro	0,040081
Venezuela, RB	Nicolas Maduro	0,024753	El Salvador	Salvador S. Ceren	0,037231
Philippines	Benigno Aquino	0,023035	Indonesia	Joko Widodo	0,036485
Argentina	Cristina F. de Kirchner	0,019905	Mexico	Enrique P. Nieto	0,029732
Brazil	Dilma Rousseff	0,019607	Cambodia	Hun Sen	0,028077
Colombia	Juan Manuel Santos	0,018559	Canada	Justin Trudeau	0,028030
Egypt, Arab Rep.	Abdel Fattah el-Sisi	0,017093	Puerto Rico	Ricardo Roselló	0,027156

As we can see from the index above there are changes in the leaders' social media standings from 2015 and 2017. The top 10 which we include here consisted of the most active world leaders. Through this, we can see that United States dominance in this list replaced by India under the leadership of Narendra Modi. It must be noted that there are Presidential changes in the United States from Barack Obama (2015) to Donald Trump (2017). Another new addition to the standing includes

Venezuelan President Nicolas Maduro, El Salvadorian President Salvador Sanchez Ceren, Indonesian President Joko Widodo, Cambodian Prime Minister Hun Sen, Canadian Prime Minister Justin Trudeau, and Puerto Rican Governor Ricardo Roselio. Based on the index alone, the penetration of the Internet affected the approaches these leaders took on social media as they become well-known to the global audience.

WORLD LEADERS' RANKS ON SOCIAL MEDIA 2015&2017

 NARENDRA MODI 2017 : 1 2015 : 2	 DONALD TRUMP 2017 : 2 2015 : 1	 RECEP T. ERDOGAN 2017 : 3 2015 : 3	 NICOLAS MADURO 2017 : 4 2015 : 5	 SALVADOR SANCHEZ CEREN 2017 : 5 2015 : 15
 JOKO WIDODO 2017 : 6 2015 : 12	 ENRIQUE NIETO 2017 : 7 2015 : 4	 HUN SEN 2017 : 8 2015 : 52	 JUSTIN TRUDEAU 2017 : 9 2015 : 37	 RICARDO ROSELLO 2017 : 10 2015 : 23
 BENIGNO AQUINO 2017 : 20 2015 : 6	 CRISTINA DE KIRCHNER 2017 : 12 2015 : 7	 DILMA ROUSSEFF 2017 : 24 2015 : 8	 JUAN MANUEL SANTOS 2017 : 16 2015 : 9	 ABDEL FATTAH EL-SISI 2017 : 13 2015 : 10

MOST ACTIVE WORLD LEADERS ON FACEBOOK

2015

Country	President/PM	VCfb Index
United States	Barack Obama	0,283571
India	Narendra Modi	0,186106
Turkey	Recep T. Erdogan	0,048511
Egypt, Arab Rep.	Abdel Fattah el-Sisi	0,031419
Mexico	Enrique P. Nieto	0,030055
Philippines	Benigno Aquino	0,029771
Guyana	Donald Ramotar	0,025319
Brazil	Dilma Rousseff	0,017501
Indonesia	Joko Widodo	0,014950
Nigeria	Goodluck Jonathan	0,013375

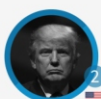
2017

Country	President/PM	VCfb Index
India	Narendra Modi	0,229676
United States	Donald Trump	0,124513
Cambodia	Hun Sen	0,056155
Turkey	Recep T. Erdogan	0,047784
Indonesia	Joko Widodo	0,042378
Egypt, Arab Rep.	Abdel Fattah el-Sisi	0,039087
Mexico	Enrique P. Nieto	0,031767
Canada	Justin Trudeau	0,031351
Puerto Rico	Ricardo Roselló	0,030775
Kenya	Uhuru Kenyatta	0,027241

WORLD LEADERS' RANKS ON VIRTUAL CONNECTEDNESS - FACEBOOK 2015&2017



NARENDRA MODI
2017 : 1
2015 : 2



DONALD TRUMP
2017 : 2
2015 : 1



HUN SEN
2017 : 3
2015 : 20



RECEP T. ERDOGAN
2017 : 4
2015 : 3



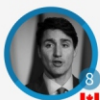
JOKO WIDODO
2017 : 5
2015 : 9



ABDEL FATTAH EL-SISI
2017 : 6
2015 : 4



ENRIQUE NIETO
2017 : 7
2015 : 5



JUSTIN TRUDEAU
2017 : 8
2015 : 69



RICARDO ROSELLO
2017 : 9
2015 : 40



UHURU KENYATTA
2017 : 10
2015 : 13



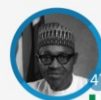
RODRIGO DUTERTE
2017 : 12
2015 : 69



DONALD RAMOTAR
2017 : 119
2015 : 7



MICHEL TEMER
2017 : 32
2015 : 8



MUHAMMADU BUHARI
2017 : 47
2015 : 10

MOST ACTIVE WORLD LEADERS ON TWITTER

2015

Country	President/PM	VCtw Index
United States	Barack Obama	0,265805
India	Narendra Modi	0,061724
Venezuela, RB	Nicolas Maduro	0,047295
Turkey	Recep T. Erdogan	0,031739
Colombia	Juan M. Santos	0,029316
Argentina	Cristina F. de Kirchner	0,027369
El Salvador	Salvador Sanchez Ceren	0,025537
Estonia	Toomas Hendrik Ilves	0,025515
Malaysia	Najib Razak	0,022826
Mexico	Enrique P. Nieto	0,021918

2017

Country	President/PM	VCtw Index
United States	Donald Trump	0,160965
India	Narendra Modi	0,134089
Venezuela, RB	Nicolas Maduro	0,074088
Turkey	Recep T. Erdogan	0,042775
Indonesia	Joko Widodo	0,030591
Colombia	Juan M. Santos	0,029937
Mexico	Enrique P. Nieto	0,027697
Canada	Justin Trudeau	0,024709
Puerto Rico	Ricardo Roselló	0,023537
Malta	Joseph Muscat	0,023271
Malaysia	Najib Razak	0,022221

WORLD LEADERS' RANKS ON VIRTUAL CONNECTEDNESS - TWITTER 2015&2017



DONALD TRUMP
2017 : 1
2015 : 1



NARENDRA MODI
2017 : 2
2015 : 2



NICOLAS MADURO
2017 : 3
2015 : 3



RECEP T. ERDOGAN
2017 : 4
2015 : 4



JOKO WIDODO
2017 : 5
2015 : 21



JUAN MANUEL SANTOS
2017 : 6
2015 : 5



ENRIQUE NIETO
2017 : 7
2015 : 10



JUSTIN TRUDEAU
2017 : 8
2015 : 28



RICARDO ROSELLO
2017 : 9
2015 : 19



JOSEPH MUSCAT
2017 : 10
2015 : 15



MAURICIO MACRI
2017 : 13
2015 : 6



SALVADOR SANCHEZ CEREN
2017 : 14
2015 : 7



KERSTI KALJULAI
2017 : 11
2015 : 8



NAJIB RAZAK
2017 : 11
2015 : 9

■ SOCIAL MEDIA COMPARATIVE OUTLOOK : FACEBOOK AND TWITTER

There are higher values in the Facebook index which can indicate more activities. However, we can see that regardless of how Narendra Modi won over Donald Trump in using Facebook the total values decrease. In the Facebook section, there are also some newcomers such as Cambodia who took part in the top three, Canada, Puerto Rico, and Kenya. Facebook postings can vary from photos, videos, articles, and personal status from each of the World Leaders. Facebook remained a reliable social media platform with a versatile type of posts with broader audiences.

Twitter is another popular platform which is being used by World Leaders to promote their idea and vision. In Twitter realm, the United States under the leadership of Donald Trump still reigned as the most active world leader on Twitter. However, we can see an enormous amount of decreased index points coming in comparison to the former US President Barack Obama. Through our observation, we can perceive that Twitter as a microblog is a popular social media platform in Latin America, in this list the top 10 consisted of Venezuelan President Nicolas Maduro, Juan Manuel Santos from Colombia, the President of Mexico Enrique Pena Nieto, and Puerto Rican Governor Ricardo Roselio. The newcomers on this top ten list included Justin Trudeau from Canada and Joseph Muscat the President of Malta. Twitter remained a relevant source for world leaders to voice their thoughts and engage with other mainly in response to ongoing global issues.

COUNTRIES' RANKS IN PERSONAL VIRTUAL POPULARITY INDEX 2015&2017



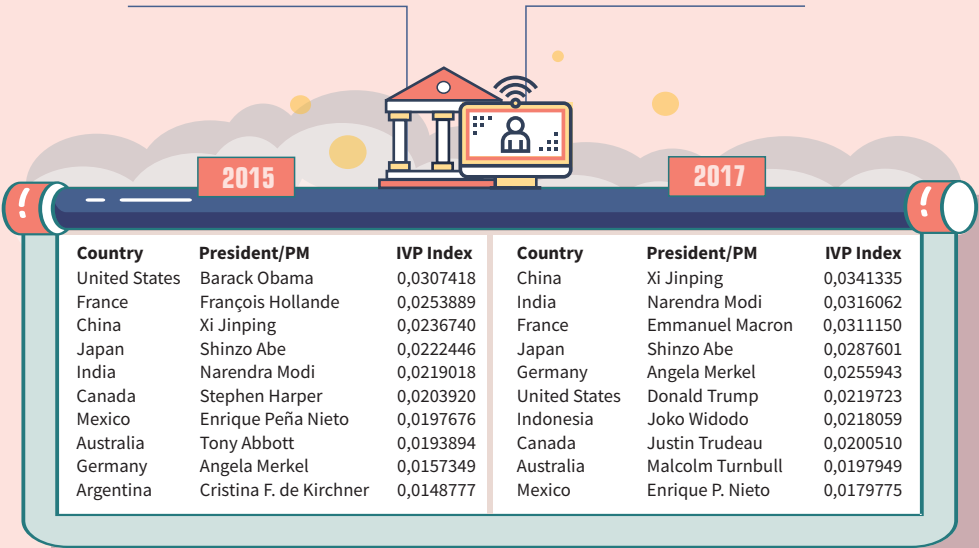
MOST POPULAR WORLD LEADERS – PERSONAL VIRTUAL POPULARITY INDEX

2015			2017		
Country	President/PM	PVP Index	Country	President/PM	PVP Index
United States	Barack Obama	0,239527	United States	Donald Trump	0,156032
Germany	Angela Merkel	0,054933	New Zealand	Bill English	0,144612
Russian Federation	Vladimir Putin	0,050381	Micronesia, Fed. Sts.	Peter M. Christian	0,060147
India	Narendra Modi	0,045521	Korea, Dem. Rep.	Kim Jong Un	0,037774
Korea, Dem. Rep.	Kim Jong Un	0,040893	France	Emmanuel Macron	0,033156
United Kingdom	David Cameron	0,037224	Belgium	Charles Michel	0,032338
Cuba	Raúl Castro	0,036758	United Kingdom	Theresa May	0,031930
France	François Hollande	0,026460	Russian Federation	Vladimir Putin	0,030851
Brazil	Dilma Rousseff	0,026077	Germany	Angela Merkel	0,028938
Mexico	Enrique P. Nieto	0,022317	India	Narendra Modi	0,020260

Through the two comparisons, United States remained on top of the list with two newcomers on the top three that are New Zealand newly elected Prime Minister Bill English and Peter M. Christian the President of the Federated States of Micronesia. Some of the more popular world leader figures

coming from Cuba, Brazil, and Mexico in 2015 did not make it into the top ten. While Narendra Modi is highly active on social media as it showed on the earlier indexes, Modi rested on number ten on the Personal Virtual Popularity Index.

MOST POPULAR WORLD LEADERS – INSTITUTIONAL VIRTUAL POPULARITY INDEX



The result for Institutional Virtual Popularity Index in 2017 is fascinating as it consisted of different names. China held the first position on this list followed by India and France, toppling down the United States in the sixth

spot. While the composition remained consistent with the one in 2015, we can see Indonesia replaced the position of Argentina only with the higher score on their index sitting on the seventh.

■ INDONESIA'S OVERALL GLOBAL CONNECTIVITY PERFORMANCE

President of Indonesia (Joko Widodo) became one of the world leaders who are well known for actively using social media both on Facebook and Twitter as a means of communication and information in 2017. Jokowi's digital strategy and initiative have resulted in Indonesia's Virtual Connectivity Index whereas in 2017 Indonesia rose to the 9th position in comparison to 2015 where Indonesia sat on the 21st. Through this research we can see how Indonesia is a digitally active country with significant popularity however in the segment of website connectivity, Indonesia only ranked 23rd.



■ CONCLUSION AND RESEARCH IMPLICATIONS

The field of digital media studies provides us with abundant data which can be used to trace the dynamics of global politics. Through social media activities, internet searches, and other factors we can see the new mediums of communication between state-people not limited to domestic events but also on the global level.

Our research enriches the discourse of studies specifically on the role of digital media in politics and governance while it adds up to our research portfolios on digital society.

ABOUT CFDS

Center for Digital Society (CfDS) is the research center established by the Faculty of Social and Political Sciences, Universitas Gadjah Mada. The institution is created under the concern over the contemporary dynamics of socio-political condition of the world that is accentuated by the impeccable influence of information technology. The phenomenon triggers the new patterns and complexities in the society, and thus requires new approaches in managing such complexities.

CfDS pledged to delve more on the study of contemporary digital society, including related issues surrounding the topic; such as the issues of smart city and urban development. The emphasis is then put on the utilization of technology to shape the society in becoming digitalized, as well as to bring solvency to social issues.

Vision

Solving Social Problem and Accelerating Prosperity through Indonesia Digital Society

Activities

1. Research and Development
2. Dissemination and Publication
3. Education and Policy Advocacy

Research Scopes

1. Digital Governance
2. Digital Economy
3. Future Technology



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