# *Digital Humanities and African Scholarship: Exploring Opportunities, Embracing Challenges*

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## *South African DH Symposium*

# *Digital Humanities and African Scholarship: Exploring Opportunities, Embracing Challenges*

The increasing interpenetration of computer science and technology with other disciplines outside the natural sciences has continued to accentuate the increasing importance of the digital transformation impacting our lives and society. Digital Humanities (DH), an emerging off shoot of this global digital revolution, espouses the deployment of new tools and techniques to retool humanistic scholarship and increase the use of social and cultural data for regional and global development. This presentation discusses how the academe and African scholars can explore new technologies to recalibrate their research endeavours and impact. Despite some perceived challenges, it is argued that these new approaches can reinvent, reconfigure and galvanize research and social transformation in Africa.

# Background

- In the last 25 years digital technologies have changed the humanities. The question is: by how much?
- Is the digital revolution transforming the humanities intellectually and practically?
- Or has it just sped up processes and access in ways that are certainly faster but not essentially different?
- Are we asking new research questions or are we just using new tools?
- Furthermore, do the digital humanities require new skillsets, which could cause us to think of universities and research training in fundamentally new ways, or is it sufficient to rely on established ways (https://core.ac.uk/download/pdf/81795766.pdf)

Principles of DH

Practice of DH

Projects in DH

# DIGITAL HUMANTIES- Conceptual clarification

**Digital Humanities may be described as the use of computer software packages and web-based technologies to investigate and analyse language and literary phenomena as well as research in other areas of the humanities( philosophy, history, music, etc**).

- By way of further conceptual clarification, Digital Humanities is concerned with how digital tools, techniques and media have altered the production and dissemination of knowledge in the traditional and liberal arts as well as human and social sciences.
- The digital humanities, also known as humanities computing, is a field of study, research, teaching, and invention concerned with the intersection of computing and the disciplines of the humanities. It is methodological by nature and interdisciplinary in scope.
- It involves investigation, analysis, synthesis and presentation of information in electronic form. It studies how these media affect the disciplines in which they are used, and what these disciplines have to contribute to our knowledge of computing(Wikipedia)

- Oza(2020) states that the use of computers to analyze research data in arts and humanities disciplines such as literature and history dates back to the 1940s.
- The digital humanities also referred to as humanities computing, maybe a field of study, research, teaching, and invention concerned with the intersection of computing and therefore the disciplines of the humanities.
- It is a study that is methodological naturally and interdisciplinary in scope.
- It involves investigation, analysis, synthesis and presentation of data in electronic form.
- It studies how these media affect the disciplines during which they're used, and what these disciplines need to contribute to our knowledge of computing.

- Digital Humanities extends and rethinks aspects of Literature, History, Philosophy and the languages and takes on critical aspects of fields such as Cultural Studies, Gender Studies, African-American Studies and Global Studies.
- It includes the development and application of archives, databases, digital environments, software and hardware. It also investigates and circulates cultural practices in new ways by applying theories and methods from the humanities to understand technology.

- We contend the best work in Digital Humanities takes on these critical approaches to politics, society, culture and technology to ask the important questions of our day-

(Lewis Levenberg **CFP - Handbook of Research Methods in Digital Humanities - www.air-l 2016)**

## Research trends in Digital Humanities

Digital humanists are concerned with a variety of topics and, despite many initiatives to create project databases, the landscape is hard to survey. Perhaps it is useful to identify five major research areas:

- Digital collections, archiving and text encoding
- Reading and analysing electronic texts
- Geospatial and critical discursive mapping technologies
- ‘Big Data,’ social computing, crowdsourcing, and networking
- 3D immersive visualisation environments

## A BRIEF HISTORICAL BACKGROUND

- According to the ‘canonical Roberto Busa story of origin’, as Rockwell (2007) calls it, DH begins in 1946 with the *Index Thomisticus* and proceeds through advances in corpus linguistics to the founding of the journal *CHum* in 1966.
- These early projects are hindered by storage capacity, hardware costs, and processing limits; progress is slow.
- Though Svensson (2009) admits that not every article during this time is about text analysis, he notes that the field had narrowed enough by 1986 for *LLC* to supplant *CHum* as the premier humanities computing journal (note the journal titles

- Blackwell *Companion to Digital Humanities* (Schreibman *et al.*, 2004)—now 15 years old—remains one of the few sources that systematically describe DH work in archeology, art history, classics, history, lexicography, music, multimedia studies, performing arts, and philosophy and religion.
- Much important DH work takes place in English departments and much more involves text analysis. But limiting the history of DH to a single, (methodologically) exclusionary narrative does little to advance a young and experimental field, especially one that values openness (Spiro, 2012).

https://academic.oup.com/dsh/article/34/Supplement_1/i190/5612984

- Davidson (2008) gives a helpful introduction to DH through a distinction between Web 1.0 and Web 2.0, though her account is more metaphorical than historical and covers a decade or two, at best. Evans and Rees (2012) describe DH in broad, interdisciplinary terms, but their historical discussion focuses on the shift from traditional humanities to DH, with little specific attention to the history of DH. McPherson (2009) prefers a distinction between computing humanities, blogging humanities, and multimodal humanities—all covered by the DH umbrella—but does not attempt a history of these tracts. Burdick *et al.* (2012, pp. 8–9, 123) avoid characterizing the field solely in terms of text analysis but their account is too brief to compare to the fuller treatments discussed here.

- Other approaches attend to the methods, platforms, and tools that animate the current field and investigate their origins in various disciplines, such as writing studies (Ball, 2013), digital cultural heritage (Sula, 2015), and visualization (Champion, 2017). Historians have been among the most active here. Brier (2017), for instance, anticipates 'alternative interpretations of this [DH] origin story that help reveal a much more complicated history of DH'—his own experiences as a historian among them.
- Robertson (2016), writing on DH and digital history, notes 'we would be better served by reimagining digital humanities not as single all-encompassing tent but as a house with many rooms, different spaces for disciplines that are not silos but entry points and conduits to central spaces where those from different disciplines working with particular tools and media can gather'.

Source: https://academic.oup.com/dsh/article/34/Supplement_1/i190/5612984

- Hockey similarly describes the 1970s and 1980s as a period of ‘consolidation’ of text analysis methods. As storage and processing capabilities increased from the late 1970s onward, structured electronic text and multimedia archives dominated the field, followed in the 1990s by Internet-enabled hypertexts, digital libraries, and collaborative editing.
- Hockey concludes, ‘If one humanities computing activity is to be highlighted above all others, in my view it must be the TEI [Text Encoding Initiative]’ and its contributions to markup language (2004). The overarching theme of this narrative is text—‘the occluded but productive literary core of this field’, as Baldwin (2013) puts it—with the plot revolving around corpora of increasing size and susceptibility to machine analysis.

- Digital Humanities is a contested field. With little agreement on exactly what Digital Humanities means it has been deemed both the savior of the humanities and, as recently claimed in the London Review of Books, a “neoliberal tool” (Allington, et al, 2016) bent on destroying traditional humanities departments.

- ❑ Yet, despite the disagreements and debates, experts believe that with regular training students will become familiar with the principles and practice of DH introduce them to, theories, techniques and tools that digital humanitarians employ.
- ❑ This Summer School was established to give participants the capacity to study, interpret and present a range of social data, cultural material and practices; develop practical and reflexive understandings of software and digital devices; and explore ways to collaborate and contribute to scholarly communities and public discourse.

Digital humanities provides a range of computer and digital techniques and tools that scholars within the humanities can utilise to do amazing research  work hitherto difficult or impossible

Digital humanities provides scientific tools that enable researchers carry out  a range of quantitative and qualitative analyses of their text/data, process and publish same for scientific community and general  public.

It offers skills, tools and opportunities to our research engagement and make our results more scientific, more objective and more impactful.

Available computer software if properly utilised will reduce stress, subjectivity and human errors in our work.

The tools can be utilised by scholars and researchers in literature and language study

# CLARIN-D TOOLS & OTHERS

- How to prepare your data in a machine-readable format
- How to create own corpus
- Data mining
- digital storytelling,
- computer-mediated communication
- data visualization

# Stylometry

- the statistical analysis of variations in literary style between one writer or genre and another.
- **the statistical analysis of variations in literary style between one writer or genre and another. Stylometry, or the study of measurable features of (literary) style, such as sentence length, vocabulary richness and various frequencies (of words, word lengths, word forms, etc.),**

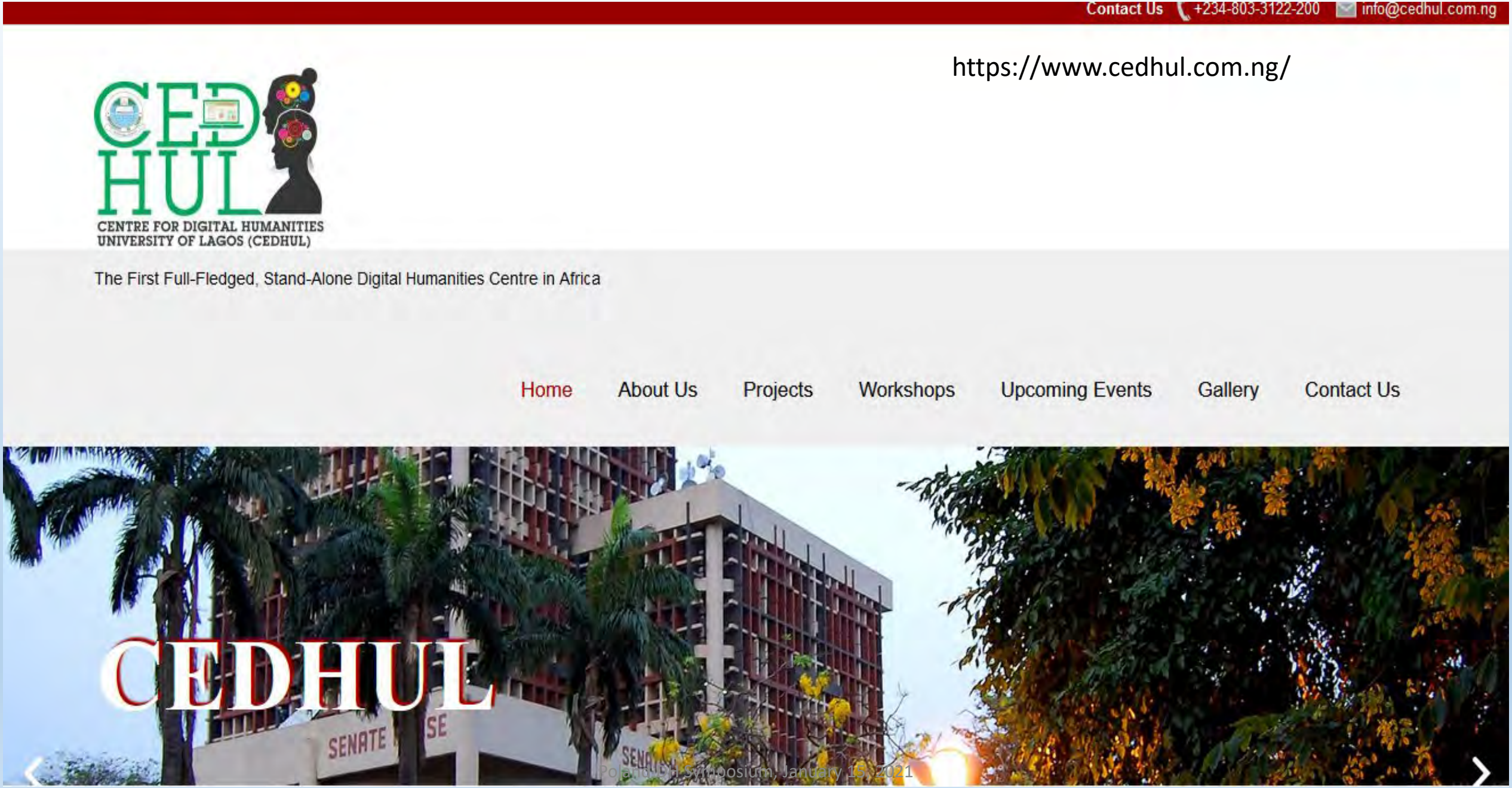
# Stylometry -

- These applications are usually based on the belief that there exist such conscious or unconscious elements of personal style that can help detect the true author of an anonymous text; that there exist stylistic fingerprints that can betray the plagiarist
- a variety of statistical approaches has been developed that allow, often with spectacular precision, to identify texts written by several authors based on a single example of each author's writing
- Software- ***Cirrus***- http://voyant-tools.org/docs/#!/guide/cirrus

# DH Tools: TRANSdisciplinary benefits

- One of the strengths of DH tools is that they can be utilised for a range of analytical procedures in language and literature.
- These tools enable  researchers to search,  identify, and discuss patterns in large data empirically and objectively
- Make data to become more concrete and representative of reality
- Make analysis more exciting and research result more explanatory

# CENTRE FOR DIGITAL HUMANITIES, UNIVERSITY OF LAGOS, NIGERIA




https://www.cedhul.com.ng/

**Scientific Organisers of DH-2019: The Perspective of Africa**

1. **Mirjam de Bruijn , Ledien University**
2. **Franciska de Jong – CLARIN ERIC**
3. **Tunde Opeibi, University of Lagos**
4. **Sara Petrollino, Utrecht University/Leiden University**
5. **Juan Steyn, SADiLaR, South Africa**

# HIGHLIGHTS OF 2020 PROGRAMMES AND ACTIVITIES

## 1. COMMENCEMENT OF TETFUND-SPONSORED PROJECT:

The principal researcher, Professor Tunde Ope-Davies as chair of the DIGITAL HUMANITIES RESEARCH GROUP won the TETFUND-NRF Grant 2019. The first tranche of the fund was released in August 2020 which enabled us to commence the project titled: **TECHNOLOGY, POLITICS AND SOCIETY: A BIG DATA APPROACH TO THE STUDY OF NEW MEDIA USAGE IN NIGERIA DEMOCRACY**

## 2. AWARD OF VOLKSWAGEN FOUNDATION'S GRANT TO CONVENE THE 3RD LAGOS SUMMER SCHOOL IN DIGITAL HUMANITIES(LSSDH-2020/21)

The director and principal researcher, Professor Ope-Davies, in conjunction with the Digital Humanities Institute, University of Cologne, Germany, received the Volkswagen Foundation's grant to host the 3rd Lagos Summer School in Digital Humanities (LSSDH-2020/21) at the University of Lagos now rescheduled to March 2021. Awarded under its scheme ***Knowledge for Tomorrow – Cooperative Research Projects in Sub-Saharan Africa***, the grant is valued at over 45,000 Euro and will provide lodging and travels among others for participants drawn from Nigeria and Sub-Saharan Africa for the one-week intensive summer school in Lagos.

# Methodology: technology-based approaches

- Application of Web-based  Computer tools
- (1) Sketch Engine:

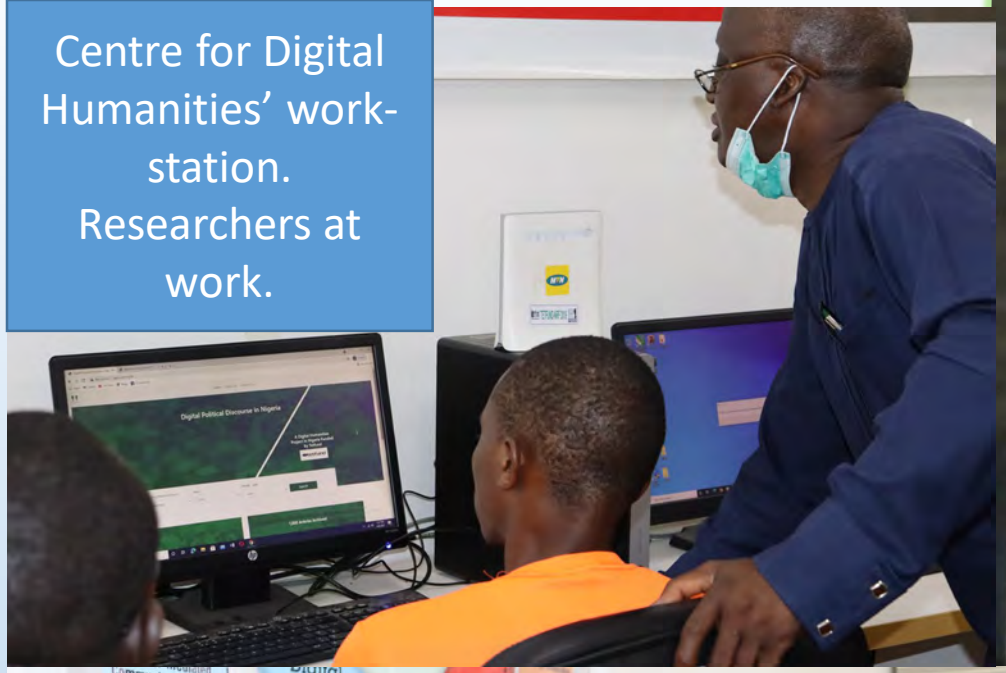
**Sketch Engine** is a corpus manager and analysis software developed by Lexical Computing Limited since 2003. Its purpose is to enable people studying language behaviour (lexicographers, researchers in corpus linguistics, translators or language learners) to search large text collections according to complex and linguistically motivated queries(Wikipedia)

Project Team on Field Work
ALL PROGRESSIVES CONGRESS
LAGOS STATE
MOTTO: JUSTICE, PEACE AND UNITY
KNOW YOUR STATE EXECUTIVE COMMITTEE MEMBERS / LGA/LCDA PARTY CHAIRMEN
FACEMASK REQUIRED PLEASE
INDEPENDENT NATIONAL ELECTORAL COMMISSION
PLEASE WEAR YOUR FACEMASK IT IS MANDATORY
VISITS ONLY BY APPOINTMENT
PEOPLES DEMOCRATIC PARTY
(P.D.P)
JUSTICE UNITY & PROGRESS
LAGOS STATE SECRETARIAT
POWER TO THE PEOPLE
56, ADEKUNLE FAJUYI WAY, G.R.A IKEJA LAGOS

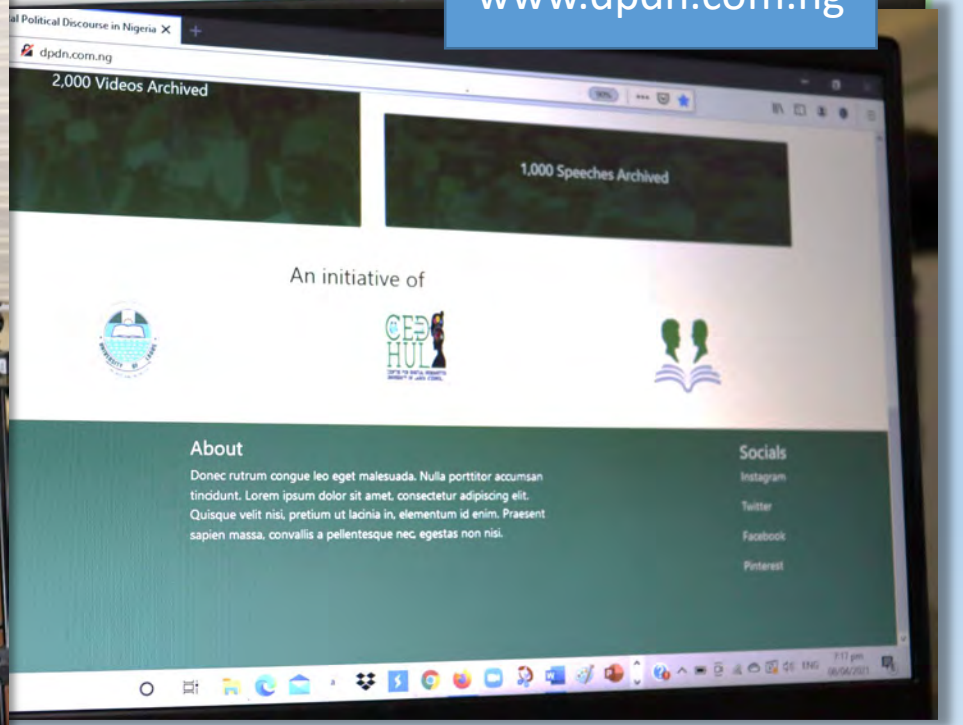
The Principal Researcher interviewing a subject. The Project Vehicle purchased from the Grant in the background

The Principal Researcher interviewing a subject. The Project Vehicle purchased from the Grant in the background

Centre for Digital Humanities' work-station. Researchers at work.



Project's Website: www.dpdn.com.ng



News
Top Stories
Digital Political Discourse in Nigeria
Books, Laptops, Tablet, etc purchased from the Grant

1. The Director’s Office at CEDHUL.
2. A range of research equipment displayed on the table: Laptops, Tablet, Books, Camera, etc purchased for the project

The project's central workstation-CEDHUL. Camera and other equipment purchased(arrowed)

Research Team at Work

- ✓ CEDHUL
- ✓ Other pieces of equipment purchased at the Centre for Digital Humanities

3rd Lagos Summer School in Digital Humanities, May 9-15, 2021

DIGITAL HUMANITIES
(LSSDH)
IN
DIGITAL HUMANITIES
(LSSDH)

T450 | 75¢

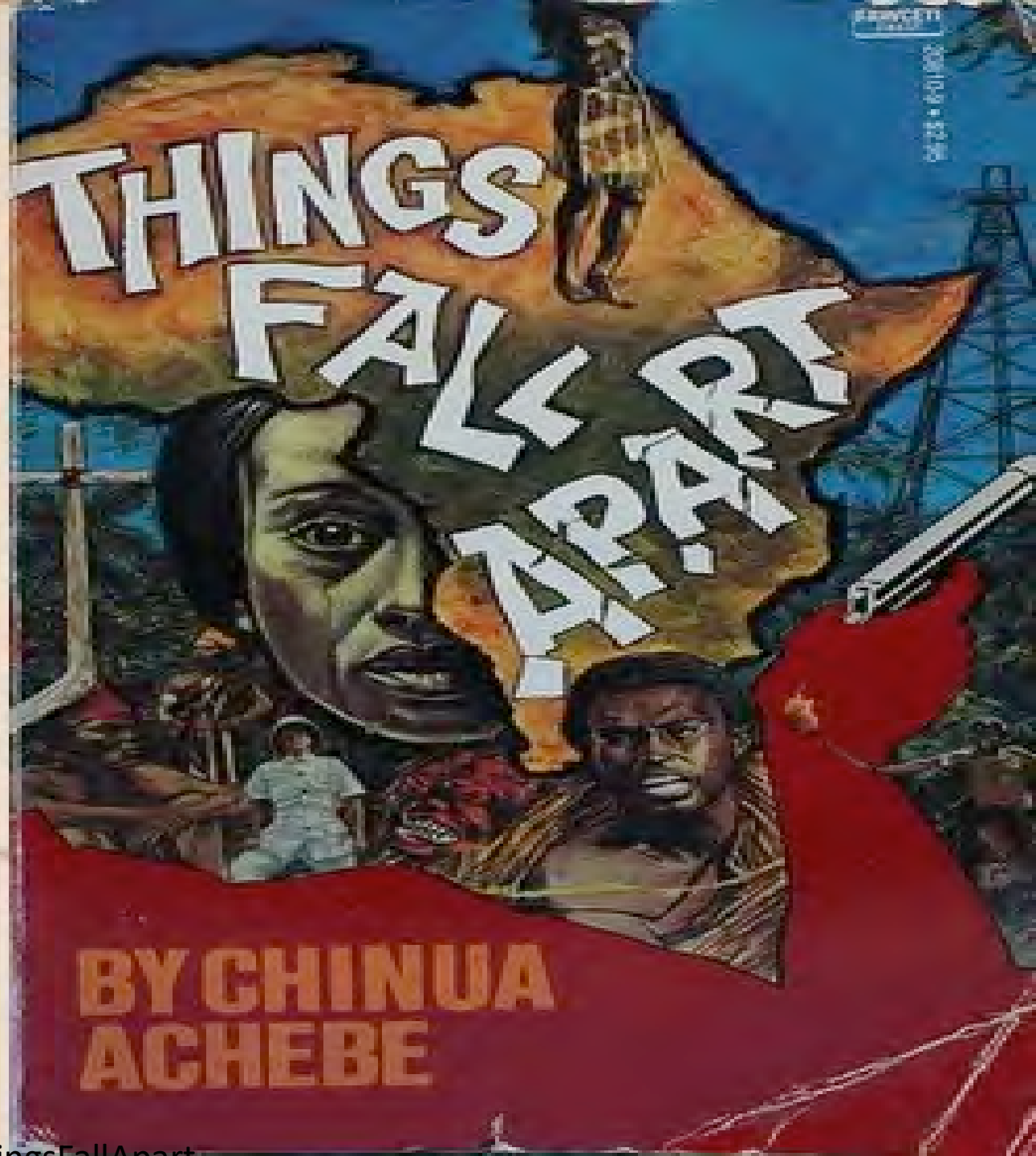
A Fawcett Premier Book

A classic of modern African literature

# THINGS FALL APART BY CHINUA ACHEBE

"Chinua Achebe is, quite simply, one of the best novelists now alive."
—Harvey Swados

Use of Tools in DH Projects




http://www.litkicks.com/ThingsFallApart

# Manifestation of Clash of Cultures

- **Some key characters in the novel (especially Africans and Europeans) symbolise or act out the various manifestations of clash of cultures in TFA with Okonkwo as the leading figure**

**Conflicts manifest at the following levels:**

**( i) Internal conflicts within Okonkwo**

**(ii) External Conflicts – Okonkwo vs community/western values**

**(iii) Communal Conflicts – The villagers vs white colonialists/missionaries**

**(iv) National Conflicts – Foreign system of governance vs traditional chiefdom system**

# Methodological Procedures: A Digital Exploration of TFA

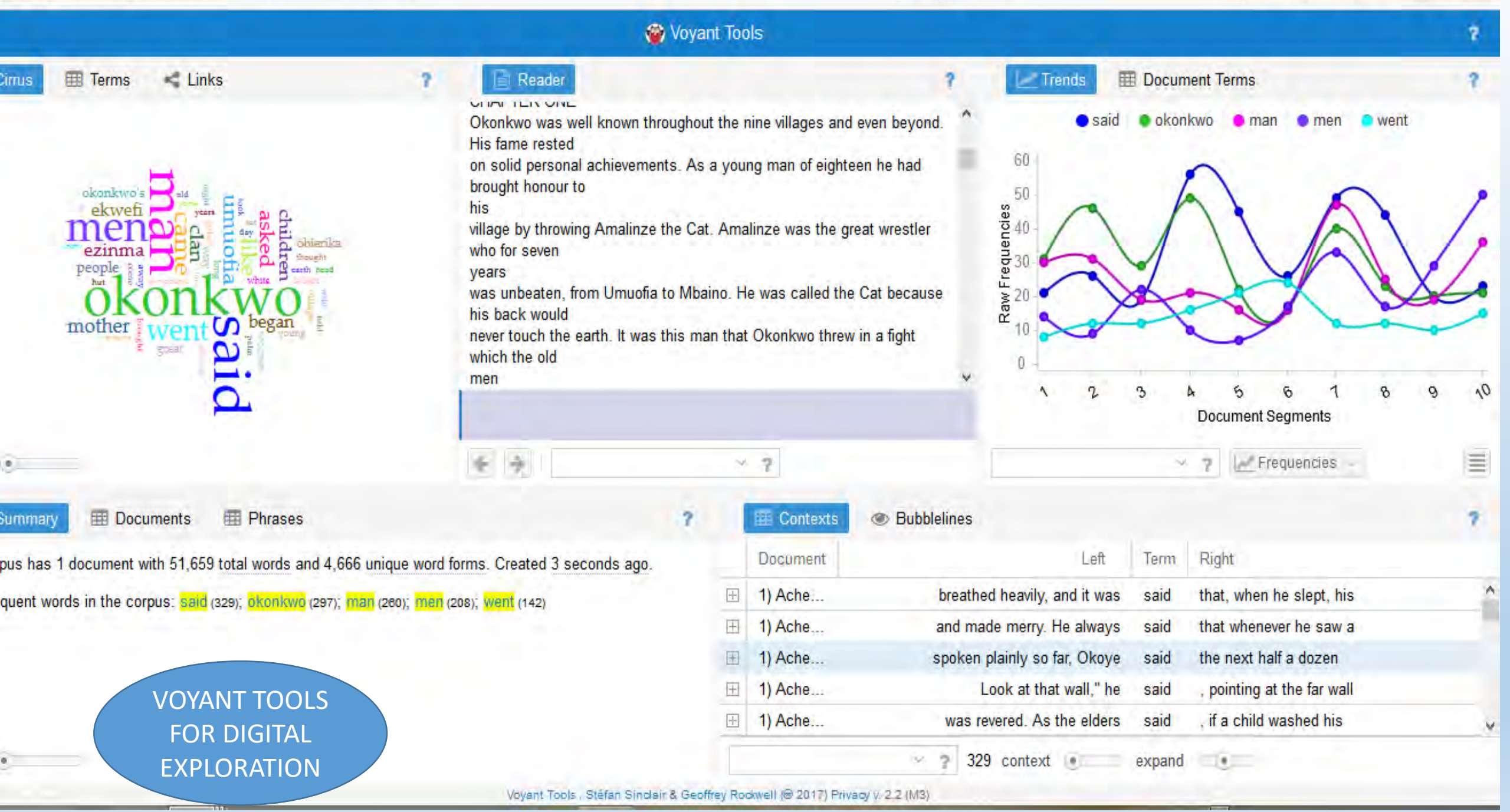
- We created a self-collected corpus titled ***Corpus of Nigerian Literary Discourse(CNLD)***
- It involved transforming the electronic copy of Achebe's *Things Fall Apart*(1958) into a txt file.
- A close reading of the text was done to gain additional insight for qualitative analysis
- Use of aspect of stylometric analysis: the study used a range of digital and computer software packages to digitally explore the character of Okonkwo and instances of clash of cultures via number of *mentions*, *word clouds*, *concordancing*, and *Key Word In Context(KWIC)* analyses.

# Webcrawling for Global Information on TFA

- Using *SketchEngine,* we webcrawled to harvest relevant online information from critical writings on TFA that place Okonkwo and clash of cultures as central thematic preoccupations
- The digital mapping yielded some interesting information about the thematic preoccupations of the text and the character of Okonkwo

# CHAPTER ANALYSIS OF THE NUMBER OF *MENTIONS* OF 'OKONKWO'

| CHAPTER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NO OF MENTIONS | 9 | 19 | 19 | 37 | 23 | 3 | 25 | 36 | 29 | 2 | 23 | 17 | 10 | 17 | 22 | 5 | 14 | 5 | 14 | 12 | 10 | 0 | 7 | 17 | 5 |




Okonkwo was well known throughout the nine villages and even beyond. His fame rested
on solid personal achievements. As a young man of eighteen he had brought honour to
his
village by throwing Amalinze the Cat. Amalinze was the great wrestler who for seven
years
was unbeaten, from Umuofia to Mbaino. He was called the Cat because his back would
never touch the earth. It was this man that Okonkwo threw in a fight which the old
men

pus has 1 document with 51,659 total words and 4,666 unique word forms. Created 3 seconds ago.

quent words in the corpus: said (329); okonkwo (297); man (260); men (208); went (142)

VOYANT TOOLS FOR DIGITAL EXPLORATION

**Voyant Tools is a web-based reading and analysis environment for digital texts**

WEB CLOUD ANALYSIS OF 'OKONKWO' USING 'R'

Word cloud analytics with the use of R software

voyant-tools.org/?corpus=b8d52c3a16dfb774ee9820bd11858c80&view=Cirrus

Search

Voyant Tools

Cirrus

Terms:

Voyant Tools , Stéfan Sinclair & Geoffrey Rockwell (© 2016) Privacy v. 2.1 (M5)

WORD CLOUD ANALYSIS OF 'OKONKWO' USING 'TAGCROWD'

Tagcrowd is a web-based reading and analysis environment for digital texts

AntConc 3.4.4w (Windows) 2014

File Global Settings Tool Preferences Help

**Corpus Files**

Achebe_Things Fall Ap

Concordance | Concordance Plot | File View | Clusters/N-Grams | Collocates | Word List | Keyword List

**Concordance Hits** 380

| Hit | KWIC | | |
|---|---|---|---|
| 1 | CHAPTER ONE | Okonkwo | was well known throughout the nine village |
| 2 | touch the earth. It was this man that | Okonkwo | threw in a fight which the old men |
| 3 | breath. Amalinze was a wily craftsman, but | Okonkwo | was as slippery as a fish in water. |
| 4 | hem stretching to breaking point. In the end | Okonkwo | threw the Cat. That was many years ago, |
| 5 | twenty years or more, and during this time | Okonkwo's | fame had grown like a bush-fire |
| 6 | in debt. Any wonder then that his son | Okonkwo | was ashamed of him? Fortunately, among the |
| 7 | not according to the worth of his father. | Okonkwo | was clearly cut out for great things. He |
| 8 | in two inter-tribal wars. And so although | Okonkwo | was still young, he was already one of |
| 9 | washed his hands he could eat with kings. | Okonkwo | had clearly washed his hands and so he |
| 10 | ad was called Ikemefuna. CHAPTER TWO | Okonkwo | had just blown out the palm-oil lamp |
| 11 | her at the market place tomorrow morning. | Okonkwo | wondered what was amiss, for he knew cert |
| 12 | very man to be present tomorrow morning. | Okonkwo | on his bamboo bed tried to figure out |
| 13 | the enemy clan knew that. And so when | Okonkwo | of Umuofia arrived at Mbaino as the proud |
| 14 | , or ndichie, met to hear a report of | Okonkwo's | mission. At the end they decided, as |
| 15 | there was no | Okonkwo | was, therefore, asked on behalf of the cla |
| 16 | hurry to decide his fate. | Okonkwo's | household. Okonkwo ruled his household |
| 17 | . And so for three years Ikemefuna lived in | Okonkwo | ruled his household with a heavy hand. His |
| 18 | Ikemefuna lived in Okonkwo's household. | Okonkwo | was not a cruel man. But his whole |
| 19 | is little children. Perhaps down in his heart | Okonkwo's | fear was greater than these. It was |
| 20 | f nature, malevolent, red in tooth and claw. | Okonkwo | first came to know that agbala was not |

**Search Term** ☑ Words ☐ Case ☐ Regex

Okonkwo Advanced

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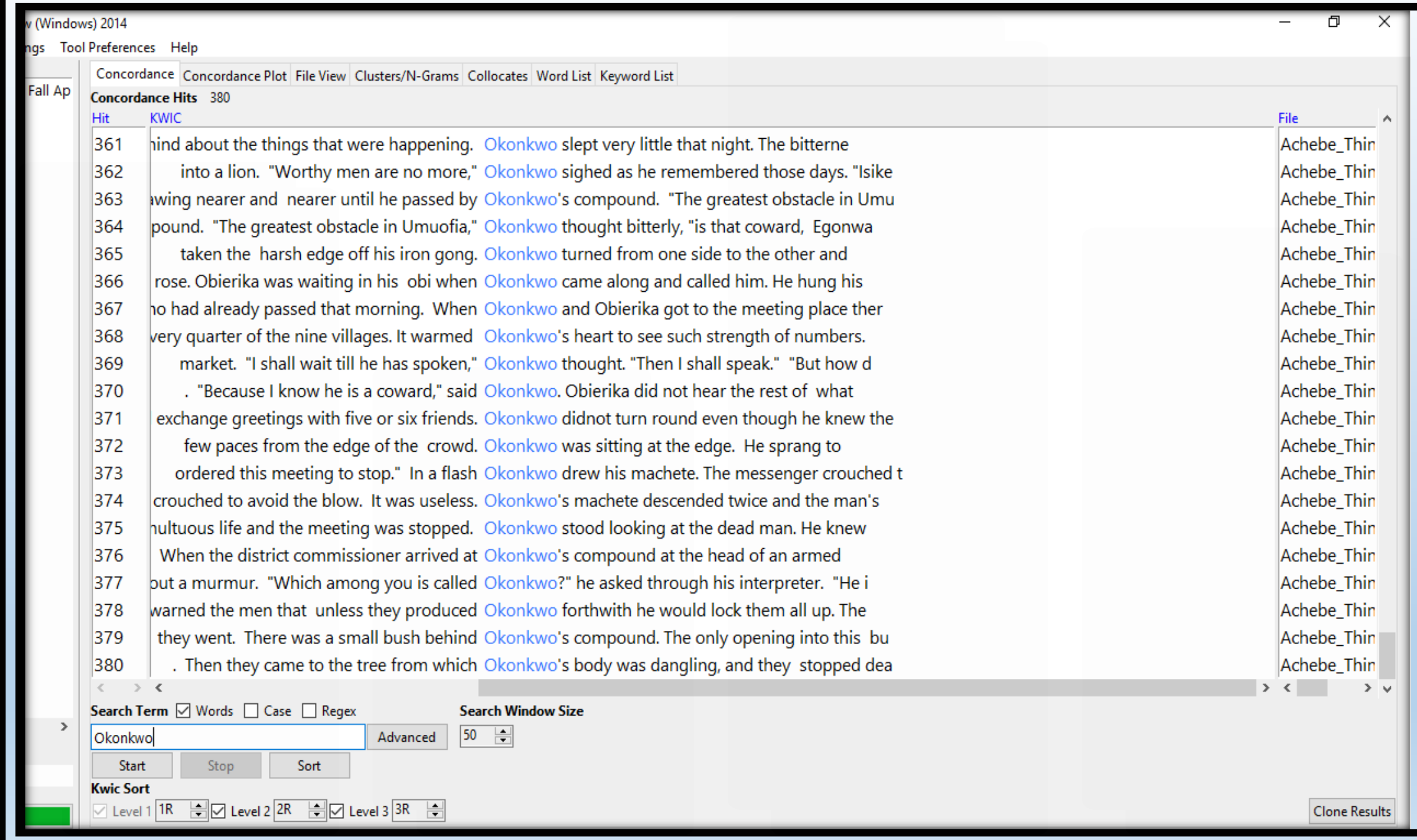
☑ Level 1 1R ☑ Level 2 2R ☑ Level 3 3R

**Total No.** 1

**Files Processed**

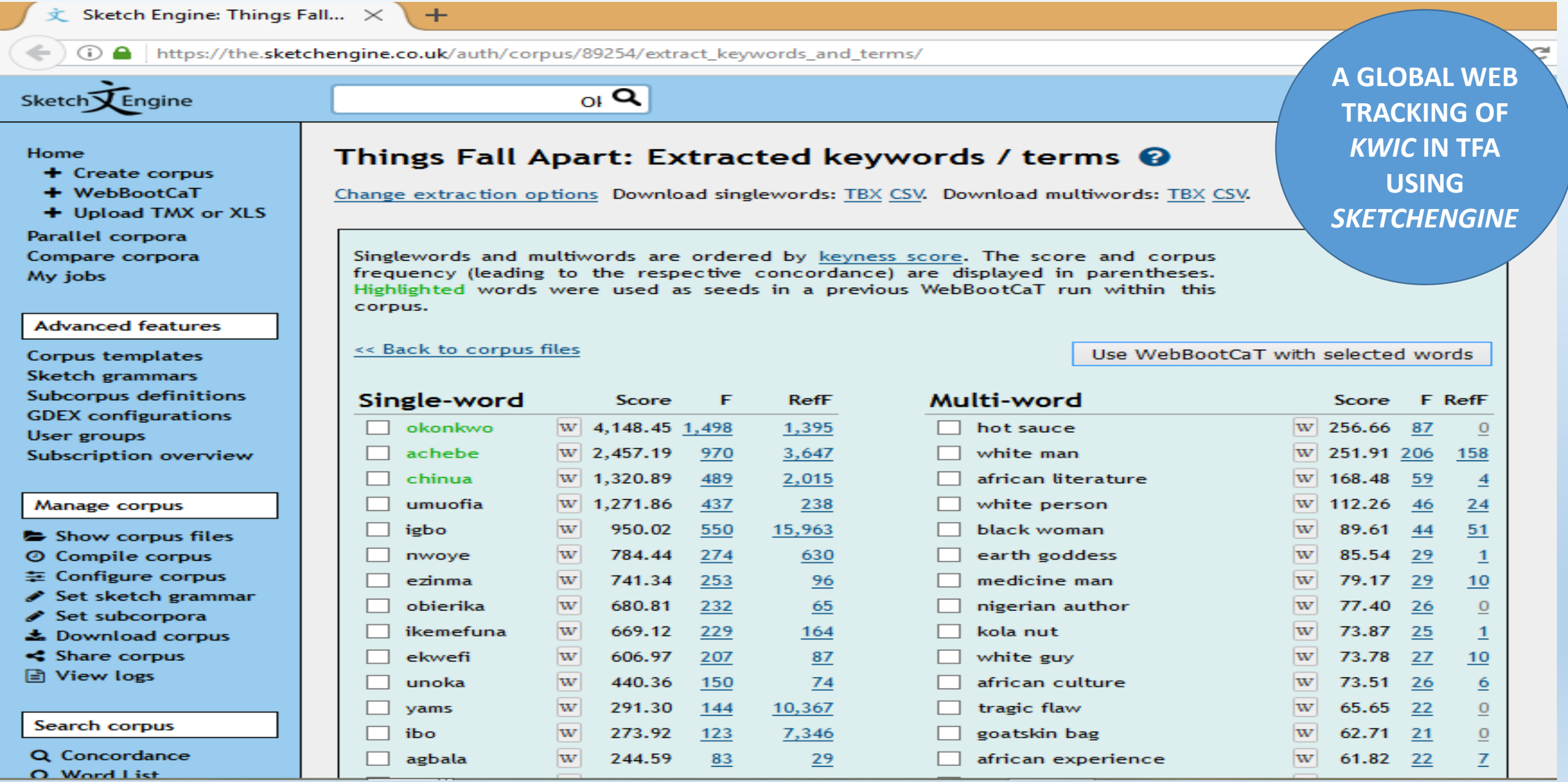

v (Windows) 2014
ngs Tool Preferences Help
Fall Ap
Concordance Concordance Plot File View Clusters/N-Grams Collocates Word List Keyword List
Concordance Hits 380
Hit KWIC File
361 hind about the things that were happening. Okonkwo slept very little that night. The bitterne Achebe_Thin
362 into a lion. "Worthy men are no more," Okonkwo sighed as he remembered those days. "Isike Achebe_Thin
363 awing nearer and nearer until he passed by Okonkwo's compound. "The greatest obstacle in Umu Achebe_Thin
364 pound. "The greatest obstacle in Umuofia," Okonkwo thought bitterly, "is that coward, Egonwa Achebe_Thin
365 taken the harsh edge off his iron gong. Okonkwo turned from one side to the other and Achebe_Thin
366 rose. Obierika was waiting in his obi when Okonkwo came along and called him. He hung his Achebe_Thin
367 ho had already passed that morning. When Okonkwo and Obierika got to the meeting place ther Achebe_Thin
368 very quarter of the nine villages. It warmed Okonkwo's heart to see such strength of numbers. Achebe_Thin
369 market. "I shall wait till he has spoken," Okonkwo thought. "Then I shall speak." "But how d Achebe_Thin
370 . "Because I know he is a coward," said Okonkwo. Obierika did not hear the rest of what Achebe_Thin
371 exchange greetings with five or six friends. Okonkwo didnot turn round even though he knew the Achebe_Thin
372 few paces from the edge of the crowd. Okonkwo was sitting at the edge. He sprang to Achebe_Thin
373 ordered this meeting to stop." In a flash Okonkwo drew his machete. The messenger crouched t Achebe_Thin
374 crouched to avoid the blow. It was useless. Okonkwo's machete descended twice and the man's Achebe_Thin
375 hultuous life and the meeting was stopped. Okonkwo stood looking at the dead man. He knew Achebe_Thin
376 When the district commissioner arrived at Okonkwo's compound at the head of an armed Achebe_Thin
377 but a murmur. "Which among you is called Okonkwo?" he asked through his interpreter. "He i Achebe_Thin
378 warned the men that unless they produced Okonkwo forthwith he would lock them all up. The Achebe_Thin
379 they went. There was a small bush behind Okonkwo's compound. The only opening into this bu Achebe_Thin
380 . Then they came to the tree from which Okonkwo's body was dangling, and they stopped dea Achebe_Thin
Search Term Words Case Regex
Search Window Size
Okonkwo
Advanced
50
Start Stop Sort
Kwic Sort
Level 1 1R Level 2 2R Level 3 3R
Clone Results

## USING *ANTCONC* FOR CONCORDANCING THE FREQUENCY ANALYSIS OF OKONKWO IN TFA

**Concordance Hits** 351

| Hit | KWIC | | File |
|---|---|---|---|
| 101 | ned round to shake hands and exchange greetings with five or six friends. | Okonkwo didnot turn round even though he knew the voices. He was in n | TFA_24.txt |
| 102 | he young men with you?" he asked as he sat down again on his goatskin. | Okonkwo told him. "Ah," he said. "Welcome, my sons." He presented the k | TFA_15.txt |
| 103 | stop beating somebody half-way through, not even for fear of a goddess. | Okonkwo's neighbours heard his wife crying and sent their voices over th | TFA_04.txt |
| 104 | s punished, as was the custom, by Ezeani, the priest of the earth goddess. | Okonkwo was provoked to justifiable anger by his youngest wife, who we | TFA_04.txt |
| 105 | ecome faint, and the distance had taken the harsh edge off his iron gong. | Okonkwo turned from one side to the other and derived a kind of pleasur | TFA_24.txt |
| 106 | Just then Obierika's son, Maduka, came into the obi from outside, greeted | Okonkwo and turned towards the compound, "Come and shake hands wi | TFA_08.txt |
| 107 | 's back. His hands trembled vaguely on the black pot he carried. Why had | Okonkwo withdrawn to the rear? Ikemefuna felt his legs melting under hir | TFA_07.txt |
| 108 | mall tree in the middle of the compound. "She has gone to plait her hair." | Okonkwo bit his lips as anger welled up within him. "Where are her childr | TFA_04.txt |
| 109 | was at last going to speak its mind about the things that were happening. | Okonkwo slept very little that night. The bitterness in his heart was now m | TFA_24.txt |
| 110 | e praying to the white man's god. If such a thing were ever to happen, he, | Okonkwo, would wipe them off the face of the earth. Okonkwo was popul | TFA_17.txt |
| 111 | a, who was Okonkwo's father. He pushed the thought out of his mind. He, | Okonkwo, was called a flaming fire. How could he have begotten a woma | TFA_17.txt |
| 112 | t Nwoye was not worth fighting for. Why, he cried in his heart, should he, | Okonkwo, of all people, be cursed with such a son? He saw clearly in it the | TFA_17.txt |
| 113 | with him two young men, each of them carrying a heavy bag on his head. | Okonkwo helped them put down their loads. It was clear that the bags we | TFA_15.txt |
| 114 | f his fiery temper, and so did his little children. Perhaps down in his heart | Okonkwo was not a cruel man. But his whole life was dominated by fear, t | TFA_02.txt |
| 115 | murmured something about guns that never shot. Unfortunately for her | Okonkwo heard it and ran madly into his room for the loaded gun, ran ou | TFA_05.txt |
| 116 | you must finish this." She sat down and stretched her legs in front of her. | Okonkwo ate the food absent-mindedly. 'She should have been a boy,' he | TFA_08.txt |
| 117 | and the eight other egwugwu began to sit in order of seniority after him. | Okonkwo's wives, and perhaps other women as well, might have noticed t | TFA_10.txt |
| 118 | otting yams. One man tied his cloth to a tree branch and hanged himself. | Okonkwo remembered that tragic year with a cold shiver throughout the r | TFA_03.txt |
| 119 | interim. And so for three years Ikemefuna lived in Okonkwo's household. | Okonkwo ruled his household with a heavy hand. His wives, especially the | TFA_02.txt |
| 120 | ed when a playmate had told him thathis father was agbala. That was how | Okonkwo first came to know that agbala was not onlyanother name for a | TFA_02.txt |

# DIGITAL EXPLORATION OF GLOBAL INFORMATIOIN ON TFA




A GLOBAL WEB TRACKING OF *KWIC* IN TFA USING *SKETCHENGINE*

**SketchEngine, A Lexical computing software package used here for digital mapping of key words in *Things Fall Apart***

# TOOLS IN DH

(1) Sketch Engine also serves as a web crawler helping to harvest queried text, key words, concepts from the various online platforms and build own corpus

(2) Tagcrowd

( 3) Keyhole

(4) Topsy

(5) Cirrus-

ETC

# Sketching the Dimensions of Cultural Manifestations in TFA: Okonkwo as the Locus of Actions

- **Civilisations: West collides with East( Modern Vs Ancient)**
- **Education: Native Intelligence, Local Wisdom, Home Schooling Vs Western Education**
- **Political cultures: Chiefdom system Vs Colonial British Empire System**
- **Economic Cultures: Farming Vs Colonial Government/White Collar Office Job**
- **Religious Cultures: Traditional Religion Vs Christianity**
- **Social Cultures: Kinship system vs Nuclear Family system**
- **Global vs National/Local Igbo cultures**
- **Private vs Public cultures( individualism vs communal/collectivism**
- **Foreign vs Local cultures**
- **Modern vs Ancient Cultures**
- **Tradition vs Modernity - Mysticism(oracle ) Vs Empiricism/Rationality**
- **Change vs Tradition**

# KEYWORD IN CONTEXT ANALYSIS IN TFA USING ANTCONC

| | | |
|---|---|---|
| not unduly perturbed when they found she had fled to join the | Christians. | It was a good riddance. One morning Okonkwo's cousin, Ami |
| his way from the neighbouring village, when he saw Nwoye among the | Christians. | He was greatly surprised, and when he got home he went st |
| where the white missionary had set up a school to teach young | Christians | to read and write. Mr. Kiaga's joy was very great. "Bless |
| about the white man's government or the consequences of killing the | Christians. | If they became more troublesome than they already were the |
| actually seen the man do it. The story had arisen among the | Christians | themselves. But, all the same, the rulers and elders of Mb |
| assembly spoke, and in the end it was decided to ostracise the | Christians. | Okonkwo ground his teeth in disgust. That night a bellman |
| thenceforth excluded from the life and privileges of the clan. The | Christians | had grown in number and were now a small community of mer |
| their own battles. The clan saw no reason then for molesting the | Christians. | |
| the anklet of his titles and cast it away to join the | Christians. | The white missionary was very proud of him and he was one |
| nese prisoners had thrown away their twins and some had molested the | Christians. | They were beaten in the prison by the kotma and made to |
| goddess fell on a Sunday, and the masked spirits were abroad. The | Christian | women who had been to church could not therefore go home. S |
| , when Enoch boasted aloud that they would not dare to touch a | Christian. | Whereupon they all came back and one of them gave Enoch a |
| , they listened from the safety of their huts. The leaders of the | Christians | had met together at Mr. Smith's parsonage on the previous |
| that a holy war was imminent,- and there were a few other | Christians | who thought like him. But wisdom prevailed in the camp of |
| they had not agreed to kill the missionary or drive away the | Christians, | they had agreed to do something substantial. Andthey had d |

. Somebody like yourself must be the head here." "The head of my church in that sense is in England." "That is exactly what I am
Mbanta and did not as yet affect the relationship between the new church and the clan. There was no question of killing a missionary he
with blood. After that nothing happened for a long time between the church and the clan. But stories were already gaining ground that the
was in fact one of them who in his zeal brought the church into serious conflict with the clan a year later by killing th
to snap its teeth together? After passing and re-passing by the church, Nwoye returned home. It was well known among the people of M
ddance. One morning Okonkwo's cousin, Amikwu, was passing by the church on his way from the neighbouring village, when he saw Nwoye an
deed changed during the seven years Okonkwo had been in exile. The church had come and led many astray. Not only the low-born and
it to a desolate heap. And from there they made for the church, intoxicated with destruction. Mr. Smith was in his church wh
-horn into his goatskin bag for the occasion. But apart from the church, the white men had also brought a government. They had built a
his arrival in Umuofia Mr. Smith suspended a young woman from the church for pouring new wine into old bottles. This woman had allowed h
the others to the chalk quarry. Mr. Kiaga was praying in the church when he heard the women talking excitedly. He rounded off his
be received. And so one Sunday two of them went into the church. There was an immediate stir, but so great was the work the
mark of your heathen belief I will not admit you into the church," said Mr. Kiaga. "You fear that you will die. Why should that
had done among the converts that they did not immediately leave the church when the outcasts came in. Those who found themselves nearest t
ther spoke to anyone nor among themselves. The courthouse, like the church, was built a little way outside the village. The footpath that
was almost happy again. For two days after the destruction of the church, nothing happened. Every man in Umuofia went about armed with
condemned Enoch's behaviour at the meeting of the leaders of the church during the night. Okeke had gone as far as to say that
there. But when the first three or four egwugwu appeared on the church compound he nearly bolted. He overcame this impulse and instea
to bring red earth and white chalk and water to scrub the church for Easter, and the women had formed themselves into three gro
He walked quietly to the door which commanded the approach to the church compound, and stood there. But when the first three or four eg

their headman, "we will take your leaders to Umuru before the big white man, and hang them." This story spread quickly through the vill
it was not important. The missionary often went to see his brother white man. There was nothing strange in that. Three days later the Di
clan. And so nobody gave serious thought to the stories about the white man's government or the consequences of killing the Christians.
the prison, which was full of men who had offended against the white man's law. Some of these prisoners had thrown away their twins
clan, but many of them believed that the strange faith and the white man's god would not last. None of his converts was a
without delay two hundred and fifty bags of cowries to appease the white man. They did not know that fifty bags would go to the
em heard. They were talking excitedly among themselves because the white man had said he was going to live among them. They had
e interpreter, who was now in charge of the infant congregation. The white man had gone back to Umuofia, where he built his headquarters a
to explore the terrain. And so they killed him." "What did the white man say before they killed him?" asked Uchendu. "He said nothin
did not feel as strongly as Okonkwo about the new dispensation. The white man had indeed brought a lunatic religion, but he had also buil
ch money to the white man's messengers and interpreter." "Does the white man understand our custom about land?" "How can he when he do
at home. The harvest was over. When they had all gathered, the white man began to speak to them. He spoke through an interpreter who
essenger. "Let me pass!" he ordered. "What do you want here?" "The white man whose power you know too well has ordered this meeting to
they lost the power to fight?" "Have you not heard how the white man wiped out Abame?" asked Obierika. "I have heard," said Okon
also their brothers, although one of them did not speak Ibo. The white man was also their brother because they were all sons of God.
bamboo bed he thought about the treatment he had received in the white man's court, and he swore vengeance. If Umuofia decided on war,
before he could answer, another man asked a question: "Where is the white man's horse?" he asked. The Ibo evangelists consulted among the
. "You are not satisfied with your crime, but you must kill the white man on top of it." He carried a strong stick, and he
to be hanged," someone said to him. "Who wants to kill the white man?" asked a messenger who had just rushed in. Nobody spoke.
they began to talk about giving in. "We should have killed the white man if you had listened to me," Okonkwo snarled. "We could have

when they are making the children." "It is like the story of white men who, they say, are white like this piece of chalk," said drew lines on the floor before they ate kola nuts. "And these white men, they say, have no toes." "And have you never seen them?" tell you another thing which the Oracle said. It said that other white men were on their way. They were locusts, it said, and that tied to the sacred silk-cotton tree. And then one morning three white men led by a band of ordinary men like us came to Abame hadgone to their farms. Only a few of them saw these white men and their followers. For manymarket weeks nothing else happe whole clan gathers there. That was the day it happened. The three white men and a very large number of other men surrounded the market. said Obierika, "But I am greatly afraid. We have heard stories about white men who made the powerful guns and the strong drinks and took his goatskin bag for the occasion. But apart from the church, the white men had also brought a government. They had built a court where came from Umuru on the bank of the Great River, where the white men first came many years before and where they had built the to uphold his government. If we should try to drive out the white men in Umuofia we should find it easy. There are only two

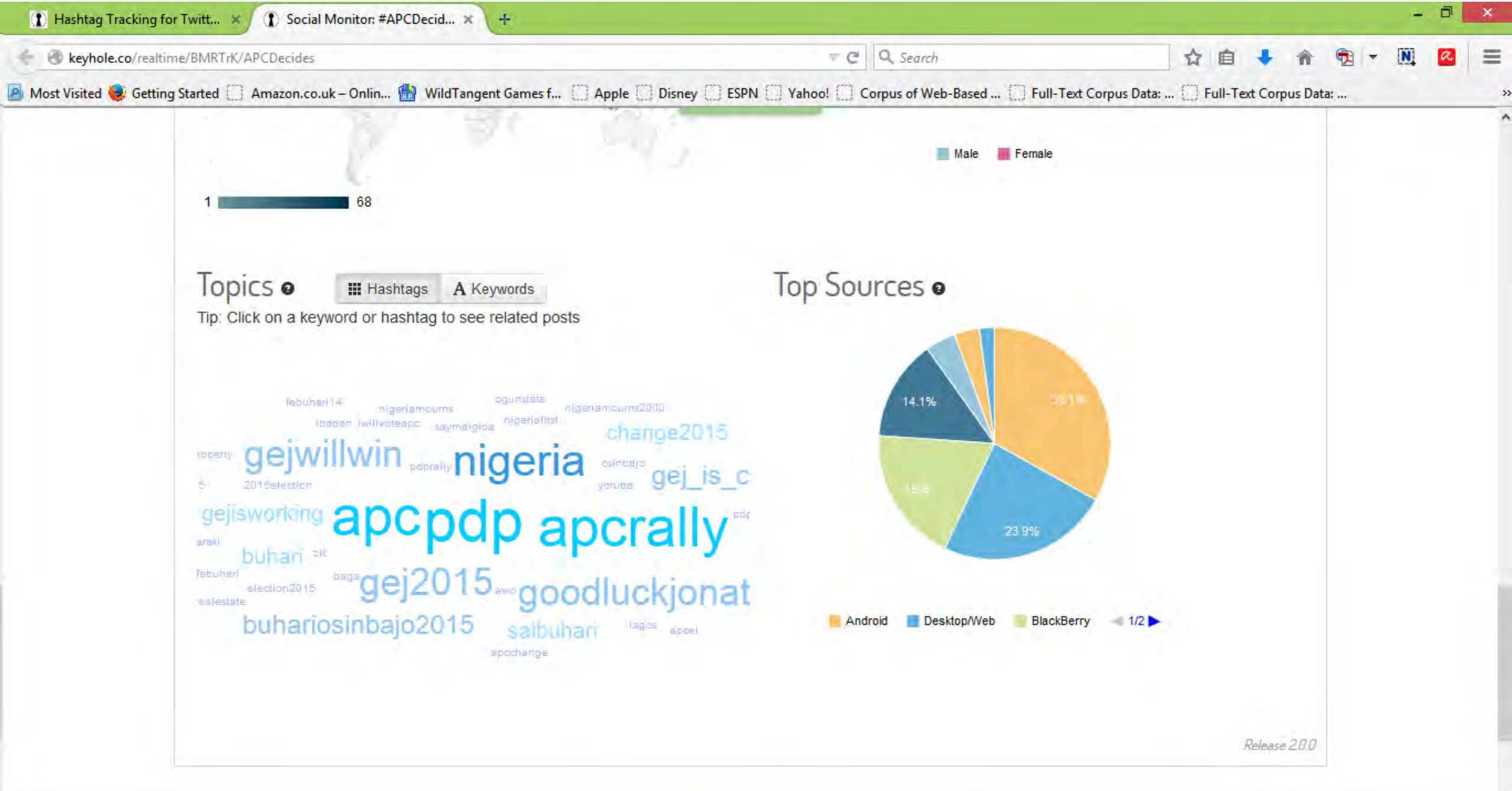
. He died of the swelling which was an abomination to the earth goddess. When a man was afflicted with swelling in the stomach and th
punished, as was the custom, by Ezeani, the priest of the earth goddess. Okonkwo was provoked to justifiable anger by his youngest wi
stop beating somebody half-way through, not even for fear of a goddess. Okonkwo's neighbours heard his wife crying and sent their vo
. Before it was dusk Ezeani, who was the priest of the earth goddess, Ani, called on Okonkwo in his obi. Okonkwo brought out kola
neighbour. We live in peace with our fellows to honour our great goddess of the earth without whose blessing our crops will not grow.
. "The evil you have done can ruin the whole clan. The earth goddess whom you have insulted may refuse to give us her increase, and
mood. It was an occasion for giving thanks to Ani, the earth goddess and the source of all fertility. Ani played a greater part in
was held every year before the harvest began, to honour the earth goddess and the ancestral spirits of the clan. New yams could not be
not please the Earth. It is the kind of actionfor which the goddess wipes out whole families." "The Earth cannot punish me for ob
to flee from the clan. It was a crime against the earth goddess to kill a clansman, and a man who committed it must flee
animals and destroyed his barn. It was the justice of the earth goddess, and they were merely her messengers. They had no hatred in th
was a man who thought about things. When the will of the goddess had been done, he sat down in his obi and mourned his
the clan did not exact punishment for an offence against the great goddess, her wrath was loosed on all the land and not just on
had a question. "Which is this god of yours," he asked, "the goddess of the earth, the god of the sky, Amadiora or the thunderbolt,
ins still remained where they had been thrown away. Surely the earth goddess would not visit the sins of the missionaries on the innocent
. And this was what Enoch did. The annual worship of the earth goddess fell on a Sunday, and the masked spirits were abroad. The Chr

# Summary of Findings: Manifestation of the 'Clash of Cultures in TFA

- **Clash between western values and African traditional values[p.108]**
- **Clash between the church(New God) and the [old] gods and goddesses of Igboland[pp.101, 102,103]**
- **Clash between whitemen and blackmen[p.98]**
- **Clash between foreigners and indigenous people [p.98; ch 20, p.124]**
- **Clash between British monarchical system, full compliments of democratic government and traditional cultural /political system-chiefdoms[ ch. 17, p. 105, ch. 18, p.110, ch 20, p.123 ]**
- **Clash between community wish and preservation of personal/social status[ch. 7, p. 43 ]**
- **Clash between local Christian converts and traditional religion adherents[p.101, Nwoye, Okonkwo's son was converted into new western religion]**
- **Clash of cultural perspectives[ ch 17, p.106]**
- **Clash of modes of worship[ church vs shrine, sacrifices vs Christian songs and prayers]**
- **Clash of the [g]ods [ Christian church built in the evil forest, p.106]**

- **Clash between change and status quo, bravery and cowardice**
- **Clash between Igbo language and English language(Led to the murder of the first white man in Abame, p.98)**
- **Clash between modern technologies and local intelligence[ ch. 15, p. 98]**
- **Clash between western education and traditional system of education(making chalk on the wall) [ ch 17, p.107]**
- **Clash between one's *chi(fate)* and the notion of personal responsibility(Okonkwo) [pp.92, 108]**
- **Clash based on slave trade history(p.99)**
- **Physical conflict between egwugwu and Mr Smith's church in Umofia over Enoch's desecration of one egwugwu[ch 22, pp.133-135] The church was destroyed by the egwugwu**

# SAMPLE APPLICATION OF DH TOOLS FOR CORPUS CONSTRUCTION



Configuration templates
Sketch grammars
Subcorpus definitions
User groups

Corpus

Corpus page
Add new file
Add web data (BootCaT)
Compile corpus
Search corpus
Extract keywords & terms
Configure corpus
Change sketch grammar
Set subcorpus definitions
Expert mode
Download corpus
Access privileges
View logs

Support

Help index
Report an error
Request a feature

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ☐ | pdp | 2,062.55 | 259 | 10,263 | ☐ stomach infrastructure | 1,698.16 | 119 | 0 |
| ☐ | osun | 1,511.65 | 116 | 1,233 | ☐ governorship election | 394.42 | 28 | 207 |
| ☐ | ekiti | 886.57 | 66 | 815 | ☐ good governance | 211.37 | 28 | 11,606 |
| ☐ | apc | 807.68 | 107 | 11,550 | ☐ governorship candidate | 185.11 | 13 | 103 |
| ☐ | chibok | 756.59 | 53 | 5 | ☐ political lexicon | 169.60 | 12 | 200 |
| ☐ | boko | 710.59 | 68 | 4,749 | ☐ urban governance | 153.73 | 11 | 358 |
| ☐ | haram | 591.87 | 70 | 8,928 | ☐ expired rice | 129.36 | 9 | 2 |
| ☐ | governorship | 532.37 | 48 | 3,732 | ☐ transformation agenda | 126.69 | 9 | 277 |
| ☐ | nigerians | 503.17 | 81 | 16,831 | ☐ mass poverty | 126.57 | 9 | 287 |
| ☐ | omisore | 450.64 | 32 | 194 | ☐ regional infrastructure | 124.86 | 9 | 477 |
| ☐ | aregbesola | 425.34 | 31 | 542 | ☐ ruling party | 119.74 | 15 | 10,316 |
| ☐ | lagos | 385.07 | 70 | 20,687 | ☐ nigerian military | 113.62 | 8 | 179 |
| ☐ | nigeria | 371.10 | 274 | 123,626 | ☐ election time | 104.32 | 9 | 3,122 |
| ☐ | goodluck | 312.22 | 31 | 5,437 | ☐ good urban governance | 100.73 | 7 | 20 |
| ☐ | nigerian | 305.49 | 98 | 46,407 | ☐ democratic rule | 93.45 | 7 | 1,036 |
| ☐ | oshiomhole | 295.73 | 21 | 209 | ☐ oil wealth | 86.48 | 7 | 2,155 |
| ☐ | amaechi | 294.38 | 22 | 898 | ☐ widespread poverty | 81.59 | 6 | 799 |
| ☐ | borno | 294.06 | 22 | 913 | ☐ present administration | 79.13 | 6 | 1,223 |
| ☐ | spn | 292.95 | 23 | 1,597 | ☐ political office | 77.33 | 7 | 3,944 |
| ☐ | abuja | 289.01 | 33 | 8,195 | ☐ free education | 74.25 | 7 | 4,648 |
| ☐ | obasanjo | 280.49 | 30 | 6,860 | ☐ rotten economic arrangement | 72.31 | 5 | 0 |
| ☐ | schoolgirls | 275.07 | 24 | 3,216 | ☐ beginning of civilian rule | 72.31 | 5 | 0 |

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14:54
15/08/2016

# DH AND CONNMDE

- Collect, collate, create and construct, and communicate a corpus of new media discourse text in Nigeria
- Phase 1: Building a Corpus of over 1 million word tokens of online conversation on politics and governance in Nigeria ( 2011-2015)
- Building a User-Interface Web-based Corpus
- Create open-access platform that scholars, researchers, policy makers can consult for historical data on the events, information on trends, opinions, debates on politics and governance in Nigeria
- Provide a tool to monitor the growth and development of democracy in Nigeria
- Identify socio-cultural factors that impact politics and democracy in Nigeria

# Conclusion: Benefits of Digitally Exploring the Text

- **Provides easy access to hidden information in the novel**
- **Enables a systematic unveiling of social meaning and socio-cultural interpretation beyond intuitive level**
- **Helps to give a more objective, unbiased and scientific analysis of the text**
- **Makes close reading analysis merely complementary**
- **Brings together a wider perspective of critical writings on the text to confirm its global audience and international appeal**

- **Demonstrates how discourses emanate and crystalize around key characters, key events and the main preoccupations in the novel**
- **KWIC analysis highlights keyness factors, helping to demonstrate what is important and what is not in the novel**
- **Wordcloud analysis brings to the fore the key highlights(themes) in the novel revealing the thematic thrust**
- **Digital exploration can aid  the teaching of postcolonial literatures in international English classrooms**

The application of these DH tools tell us something about Okonkwo and Cultural Conflicts in the Novel which would have been difficult to detect manually:

- ✓ **DH tools enable us to track conversation, analyse key, events and monitor other characters, issues that are receiving more attention in the text**
- ✓ **The analytics reveals quantitative information about the data that suggests the prominence and intensity of discursive issues and interactions around the key subject area**
- ✓ **Digital exploration shows the significance of these issues and themes in the novel within the local and global contexts and perhaps their social relevance and wider cultural implications**

# References

**Oza, P. (2020) Digital Humanities-An Introduction**

DOI:10.13140/RG.2.2.22411.72485.
https://www.researchgate.net/publication/342692665_Digital_Humanities-An_Introduction

Sula, C.A., Hill, H.V. (2019)**The early history of digital humanities: An analysis of *Computers and the Humanities* (1966–2004) and *Literary and Linguistic Computing* (1986–2004) .** *Digital Scholarship in the Humanities*, Volume 34, Issue Supplement_1, December 2019, Pages i190–i206, https://doi.org/10.1093/llc/fqz0

https://en.wikipedia.org/wiki/Things_Fall_Apart

http://www.literaryworlds.wmich.edu/Umuofia/

**http://www.sparknotes.com/lit/things/themes.html**

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