What do you do with millions of words?

Heather Froehlich
University of Strathclyde
@heatherfro |#daftpunkDH

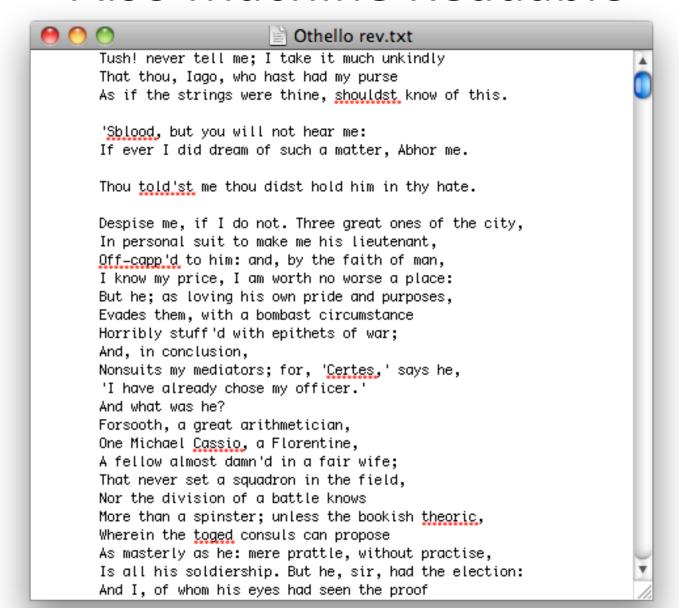
Machine-Readable (Historical) Documents

- British National Corpus (BNC)
- Corpus of Early English Correspondence (CEEC)
- Early English Books Online (EEBO)
- Countless others...

Othello, I.i.8-10, Folger Digital Texts XML

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473
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Also Machine Readable



Ways Machines "read"

- Individual string searches
 - The, wom?n, incident*
- XML tags
 - Lexical features: all modal verbs, all prepositions
 - Speaker features: everything said by one speaker;
 by gender, social status, etc
- Other assigned category features

Visualizing English Print, 1470-1800

- University of Strathclyde (UK)
- University of Wisconsin-Madison (USA)
- Folger Shakespeare Library (USA)

http://winedarksea.org

http://www.textcreationpartnership.org/tcp-eebo/



Home » EEBO-TCP: Early English Books Online

EEBO-TCP: Early English Books Online



EEBO-TCP is a partnership with ProQuest and with more than 150 libraries to generate highly accurate, fully-searchable, SGML/XML-encoded texts corresponding to books from the Early English Books Online Database.

EEBO

The EEBO corpus consists of the works represented in the English Short Title Catalogue I and II (based on the Pollard & Redgrave and Wing short title catalogs), as well as the Thomason Tracts and the Early English Books Tract

Supplement. Together these trace the history of English thought from the first book printed in

What is the TCP?

The Text Creation Partnership creates standardized, accurate XML/SGML encoded electronic text editions of early print books. We transcribe and mark up the text from the millions of page images in ProQuest's Early English Books Online, Gale Cengage's Eighteenth Century Collections Online, and Readex's Evans Early American Imprints.

This work, and the resulting text files, are jointly funded and owned by more than 150 libraries worldwide. All of the TCP's work will be released the public domain for anyone to use.

Access the TCP Texts

- ECCO-TCP Full text available to everyone
- EEBO-TCP Full text available only to EEBO-TCP partners
- Evane-TCD Full toxt available only to Evane-TCD

Docuscope

(Ishizaki & Kaufer 2004, 2011)

- 101 Language Action Types
 - Dimension > cluster > LAT
 - Covers:
 - 100,000 most frequent words
 - 75,000 of the most common words
 - the most frequent 2-4 word combinations

(2011: 280; 2004: Chapter 1)



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First Person	· · · • • · · 		
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Private Cognition	· H		
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Immediacy	一种		
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Negative Emotions	· · · · · · · · · · · · · · · · · · ·		
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Past Perspective	·├∯ └──		
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Positive Relations	` - ₽-}		
Negative Relations	1		
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Public Language	 		
Positive Values	· · · · · · ·		
Negative Values	· [H]		
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Contingent Reasoning	一		
Oppositional Reasoning	├ - -		
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Directing Address	· ——		
Question	·		
Formal Query			
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■ Comedies ■ Histories ■ Late Plays

■ Tragedies

○ ○ ○ Winter's Tale rev.txt

First Person Options	1122 [3.81%]
Interior Thought	
Emotions	
Time Orientation	597 [2.03%]
Descriptive	1938 [6.57%]
Interpersonal Relations	160 [0.54%]
Public Reference	
Public Values	
Reason	1313 [4.45%]
Interaction	1605 [5.44%]
Topical Flow	602 [2.04%]
Elaborations	602 [2.04%]
Special Referencing	2377 [8.06%]
Reporting	1857 [6.30%]
Directing	253 [0.86%]
Directing Readers	65 [0.22%]
Narrative	257 [0.87%]

Total words: 29479

If you shall chance, Camillo, to visit Bohemia, on the like occasion whereon my services are now on foot, you shall see , as I have said , great difference betwixt our Bohemia and your Sicilia . I think , this coming summer , the King of Sicilia means to pay Bohemia the visitation which he justly owes him. Wherein our entertainment shall shame us we will be justified in our loves; for indeed-- Beseech you, -- Verily, I speak it in the freedom of my knowledge: we cannot with such magnificence--in so rare--I know not what to say. We will give you sleepy drinks, that your senses, unintelligent of our insufficience, may, though they cannot praise us, as little accuse us . You pay a great deal too dear for what's given freely . Believe me , I speak as my understanding instructs me and as mine honesty puts it to utterance. Sicilia cannot show himself over-kind to Bohemia. They were trained together in their childhoods; and there rooted betwixt them then such an affection, which cannot choose but branch now . Since their more mature dignities and royal necessities made separation of their society , their encounters, though not personal, have been royally attorneyed with interchange of gifts, letters, loving embassies; that they have seemed to be together, though absent, shook hands, as over a vast, and embraced , as it were , from the ends of opposed winds . The heavens continue their loves ! I think there is not in the world either malice or matter to alter it. You have an unspeakable comfort of your young prince Mamillius: it is a gentleman of the greatest promise that ever came into my note. I very well agree with you in the hopes of him: it is a gallant child; one that indeed physics the subject, makes old hearts fresh; they that went on crutches ere he was born desire yet their life to see him a man . Would they else be content to die ? Yes ; if there were no other excuse why they should desire to live . If the king had no son , they would desire to live on crutches till he had one. Nine changes of the watery star hath been The shepherd's note since we have left our throne Without a burthen: time as long again Would be find up, my brother, with our thanks; And yet we should, for perpetuity, Go hence in debt: and therefore, like a cipher, Yet standing in rich place, I multiply With one 'We thank you' many thousands moe That go before it . Stay your thanks a while ; And pay them when you part . Sir , that's to-morrow . I am question'd by my fears , of what may chance Or breed upon our absence; that may blow No sneaping winds at home, to make us say 'This is put forth too truly: 'besides, I have stay'd To tire your royalty . We are tougher , brother , Than you can put us to't . No longer stay . One seven-night longer . Very sooth , to-morrow . We'll part the time between's then ; and in that I'll no gainsaying . Press me not , beseech you , so , There is no tongue that moves , none , none i' the world . So soon as yours could win me : so it should now . Were there necessity in your request, although 'Twere needful I denied it. My affairs Do even drag me homeward: which to hinder Were in your love a whip to me; my stay To you a charge and trouble: to save both , Farewell , our brother . Tongue-tied , our gueen ? speak you . I had thought , sir , to have held my peace until You have drawn paths from him not to stay . You , sir , Charge him too coldly , Tell him , you are sure All in Bohemia's well; this satisfaction The by-gone day proclaim'd: say this to him, He's beat from his best ward, Well said . Hermione . To tell , he longs to see his son , were strong : But let him say so then , and let him go ; But let him swear so, and he shall not stay, We'll thwack him hence with distaffs, Yet of your royal presence I'll adventure The borrow of a week . When at Bohemia You take my lord , I'll give him my commission To let him there a month behind the gest Prefix'd for's parting: yet, good deed, Leontes, I love thee not a jar o' the clock behind What lady-she her lord . You'll stay ? No , madam . Nay , but you will ? I may not , verily . Verily ! You put me off with limber yows; but I. Though you would seek to unsphere the stars with oaths. Should yet say 'Sir, no going 'Verily You shall not go a lady's 'Verily''s As notent as a lord's Will you go yet? Force me to keep

A Midsummer Night's Dream rev.txt

First Person Options	699 [3.57%]
Interior Thought	
Emotions	
Time Orientation	
Descriptive	
Descriptive Features	1966 [10.05%]
Sense Properties	
Sense Objects	940 [4.81%]
Spatial Relations	284 [1.45%]
Scene Shifts	
Motion	
Dialog Cues	
Oral Element	
Interpersonal Relations	111 [0.57%]
Public Reference	115 [0.59%]
Public Values	378 [1.93%]
Reason	757 [3.87%]
Interaction	1031 [5.27%]
Topical Flow	302 [1.54%]
Elaborations	343 [1.75%]
Special Referencing	1206 [6.17%]
Reporting	
	161 [0.82%]
Directing Readers	48 [0.25%]
Narrative	

Total words: 19557

pale ? How chance the roses there do fade so fast ? Belike for want of rain , which I could well Beteem them from the tempest of my eyes. Ay me! for aught that I could ever read, Could ever hear by tale or history, The course of true love never did run smooth; But, either it was different in blood, -- O cross! too high to be enthrall'd to low. Or else misgraffed in respect of years, -- O spite! too old to be engaged to young. Or else it stood upon the choice of friends, -- O hell! to choose love by another's eyes. Or, if there were a sympathy in choice, War, death, or sickness did lay siege to it, Making it momentany as a sound, Swift as a shadow, short as any dream; Brief as the lightning in the collied night, That, in a spleen, unfolds both heaven and earth, And ere a man hath power to say 'Behold!' The jaws of darkness do devour it up: So quick bright things come to confusion. If then true lovers have been ever cross'd, It stands as an edict in destiny: Then let us teach our trial patience, Because it is a customary cross, As due to love as thoughts and dreams and sighs, Wishes and tears, poor fancy's followers . A good persuasion: therefore, hear me, Hermia. I have a widow aunt, a dowager Of great revenue, and she hath no child: From Athens is her house remote seven leagues; And she respects me as her only son. There, gentle Hermia, may I marry thee; And to that place the sharp Athenian law Cannot pursue us. If thou lovest me then , Steal forth thy father's house to-morrow night; And in the wood, a league without the town, Where I did meet thee once with Helena, To do observance to a morn of May, There will I stay for thee. My good Lysander! I swear to thee, by Cupid's strongest bow, By his best arrow with the golden head, By the simplicity of Venus ' doves , By that which knitteth souls and prospers loves , And by that fire which burn'd the Carthage queen , When the false Troyan under sail was seen , By all the vows that ever men have broke , In number more than ever women spoke , In that same place thou hast appointed me , To-morrow truly will I meet with thee . Keep promise, love. Look, here comes Helena. God speed fair Helena! whither away? Call you me fair? that fair again unsay. Demetrius loves your fair: O happy fair! Your eyes are lode-stars; and your tongue's sweet air More tuneable than lark to shepherd's ear, When wheat is green, when hawthorn buds appear. Sickness is catching: O, were favour so, Yours would I catch, fair Hermia, ere I go; My ear should catch your voice, my eye your eye, My tongue should catch your tongue's sweet melody. Were the world mine, Demetrius being bated , The rest I'd give to be to you translated . O , teach me how you look , and with what art You sway the motion of Demetrius ' heart . I frown upon him , yet he loves me still . O that your frowns would teach my smiles such skill! I give him curses, yet he gives me love. O that my prayers could such affection move! The more I hate , the more he follows me . The more I love , the more he hateth me . His folly , Helena , is no fault of mine . None, but your beauty: would that fault were mine! Take comfort: he no more shall see my face; Lysander and myself will fly this place. Before the time I did Lysander see, Seem'd Athens as a paradise to me: O, then, what graces in my love do dwell , That he hath turn'd a heaven unto a hell! Helen , to you our minds we will unfold: To-morrow night, when Phoebe doth behold Her silver visage in the watery glass, Decking with liquid pearl the bladed grass, A time that lovers 'flights doth still conceal, Through Athens' gates have we devised to steal . And in the wood , where often you and I Upon faint primrose-beds were wont to lie , Emptying our bosoms of their counsel sweet, There my Lysander and myself shall meet; And thence from Athens turn away our eyes, To seek new friends and stranger companies. Farewell, sweet playfellow; pray thou for us; And good luck grant thee thy Demetrius! Keep word, Lysander: we must starve our sight From lovers' food till morrow deep midnight . I will , my Hermia . Helena , adieu : As you on him , Demetrius dote on you ! How happy some o'er other some can be! Through Athens I am thought as fair as she. But what of that? Demetrius thinks not so; He will not know what all but he do know: And as he errs doting on Hermia's eyes. So I admiring of his

KING RICHARD II rev.txt

First Person Options	963 [3.73%]
Interior Thought	902 [3.49%]
Emotions	1310 [5.07%]
Time Orientation	423 [1.64%]
Descriptive	2179 [8.43%]
Descriptive Features	2179 [8.43%]
Sense Properties	417 [1.61%]
Sense Objects	976 [3.78%]
Spatial Relations	403 [1.56%]
Scene Shifts	110 [0.43%]
Motion	209 [0.81%]
Dialog Cues	0 [0.00%]
Oral Element	64 [0.25%]
Interpersonal Relations	208 [0.80%]
Public Reference	410 [1.59%]
Public Values	760 [2.94%]
Reason	1002 [3.88%]
Interaction	1295 [5.01%]
Topical Flow	
Elaborations	404 [1.56%]
Special Referencing	2066 [7.99%]
Person Roles	615 [2.38%]
Communicator Roles	1 [0.00%]
Referencing Language	226 [0.87%]
Abstract Reference	1134 [4.39%]
Citing References	90 [0.35%]
Citing Quotation	0 [0.00%]
Reporting	1554 [6.01%]
Directing	190 [0.74%]
Directing Readers	44 [0.17%]
Narrative	240 [0.93%]

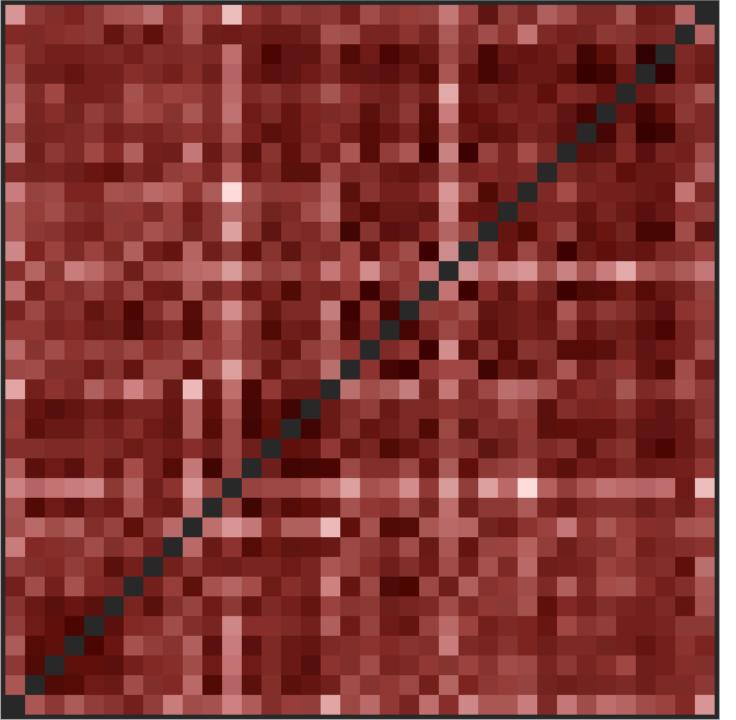
Total words: 25849

and for that will I die . Cousin , throw up your gage ; do you begin . O , God defend my soul from such deep sin ! Shall I seem crest-fall'n in my father's sight? Or with pale beggar-fear impeach my height Before this out-dared dastard? Ere my tongue Shall wound my honour with such feeble wrong, Or sound so base a parle, my teeth shall tear The slavish motive of recanting fear, And spit it bleeding in his high disgrace, Where shame doth harbour, even in Mowbray's face. We were not born to sue, but to command; Which since we cannot do to make you friends, Be ready, as your lives shall answer it, At Coventry, upon Saint Lambert's day: There shall your swords and lances arbitrate The swelling difference of your settled hate: Since we can not atone you, we shall see Justice design the victor's chivalry. Lord marshal, command our officers at arms Be ready to direct these home alarms. Alas, the part I had in Woodstock's blood Doth more solicit me than your exclaims, To stir against the butchers of his life! But since correction lieth in those hands Which made the fault that we cannot correct, Put we our guarrel to the will of heaven; Who, when they see the hours ripe on earth, Will rain hot vengeance on offenders ' heads . Finds brotherhood in thee no sharper spur? Hath love in thy old blood no living fire? Edward's seven sons, whereof thyself art one, Were as seven vials of his sacred blood, Or seven fair branches springing from one root : Some of those seven are dried by nature's course , Some of those branches by the Destinies cut; But Thomas, my dear lord, my life, my Gloucester, One vial full of Edward's sacred blood, One flourishing branch of his most royal root, Is crack'd, and all the precious liquor spilt, Is hack'd down, and his summer leaves all faded , By envy's hand and murder's bloody axe . Ah , Gaunt , his blood was thine ! that bed , that womb, That metal, that self-mould, that fashion'd thee Made him a man; and though thou livest and breathest, Yet art thou slain in him: thou dost consent In some large measure to thy father's death, In that thou seest thy wretched brother die, Who was the model of thy father's life. Call it not patience, Gaunt; it is despair: In suffering thus thy brother to be slaughter'd, Thou showest the naked pathway to thy life, Teaching stern murder how to butcher thee: That which in mean men we intitle patience Is pale cold cowardice in noble breasts. What shall I say? to safeguard thine own life, The best way is to venge my Gloucester's death. God's is the quarrel; for God's substitute, His deputy anointed in His sight, Hath caused his death; the which if wrongfully, Let heaven revenge; for I may never lift An angry arm against His minister. Where then, alas, may I complain myself? To God, the widow's champion and defence. Why, then, I will. Farewell, old Gaunt. Thou goest to Coventry, there to behold Our cousin Hereford and fell Mowbray fight: O, sit my husband's wrongs on Hereford's spear, That it may enter butcher Mowbray's breast! Or, if misfortune miss the first career, Be Mowbray's sins so heavy in his bosom, They may break his foaming courser's back, And throw the rider headlong in the lists , A caitiff recreant to my cousin Hereford ! Farewell , old Gaunt : thy sometimes brother's wife With her companion grief must end her life. Sister, farewell; I must to Coventry: As much good stay with thee as go with me! Yet one word more: grief boundeth where it falls, Not with the empty hollowness, but weight: I take my leave before I have begun, For sorrow ends not when it seemeth done. Commend me to thy brother, Edmund York . Lo , this is all : --nay , yet depart not so ; Though this be all , do not so quickly go ; I shall remember more . Bid him--ah, what ? -- With all good speed at Plashy visit me . Alack, and what shall good old York there see But empty lodgings and unfurnish'd walls, Unpeopled offices, untrodden stones? And what hear there for welcome but my groans? Therefore commend me; let him not come there, To seek out sorrow that dwells every where. Desolate, desolate, will I hence and die: The last leave of thee takes my weeping eye. My Lord Aumerle, is Harry Hereford arm'd? Yea, at all points; and longs to enter in . The Duke of Norfolk, sprightfully and bold, Stave but the summons of the appellant's trumpet. Why then the champions are prepared, and stay For

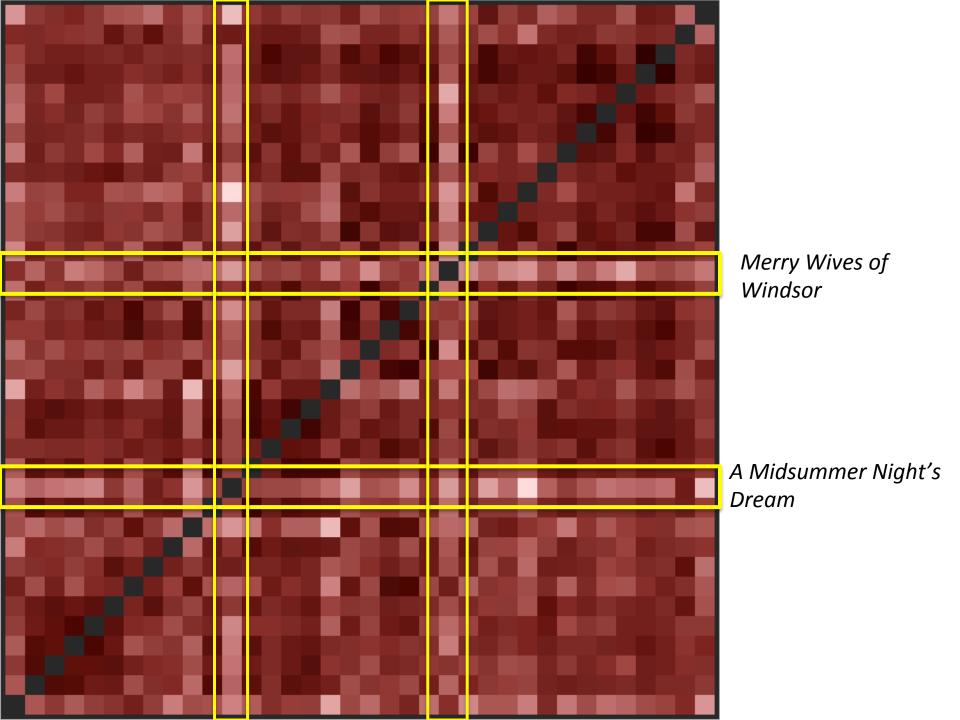
All's Well that Ends Well rev.txt

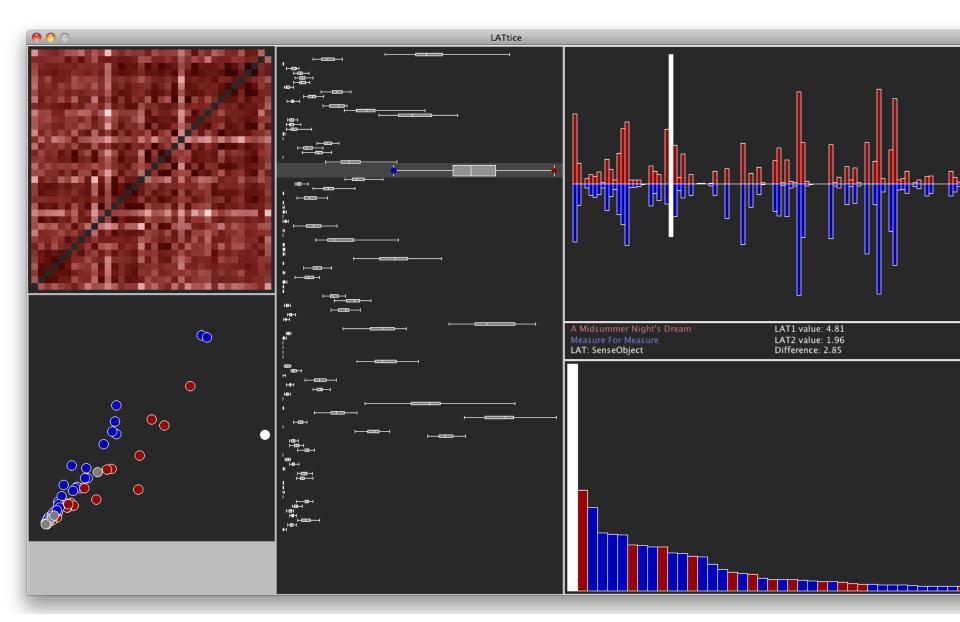
First Person Options 1108 [4.09%] Interior Thought 1107 [4.09%] Emotions 1115 [4.12%] Time Orientation 556 [2.05%] Descriptive 1544 [5.71%] Interpersonal Relations 200 [0.74%] Public Reference 331 [1.22%] Public Values 771 [2.85%] Reason 1066 [3.94%] Interaction 1522 [5.62%] Topical Flow 685 [2.53%] <u>Pronoun</u> 649 [2.40%] Aside 36 [0.13%] Elaborations 475 [1.76%] Special Referencing 2177 [8.04%] Reporting 1729 [6.39%] Directing 210 [0.78%] Directing Readers 65 [0.24%] Narrative 213 [0.79%]

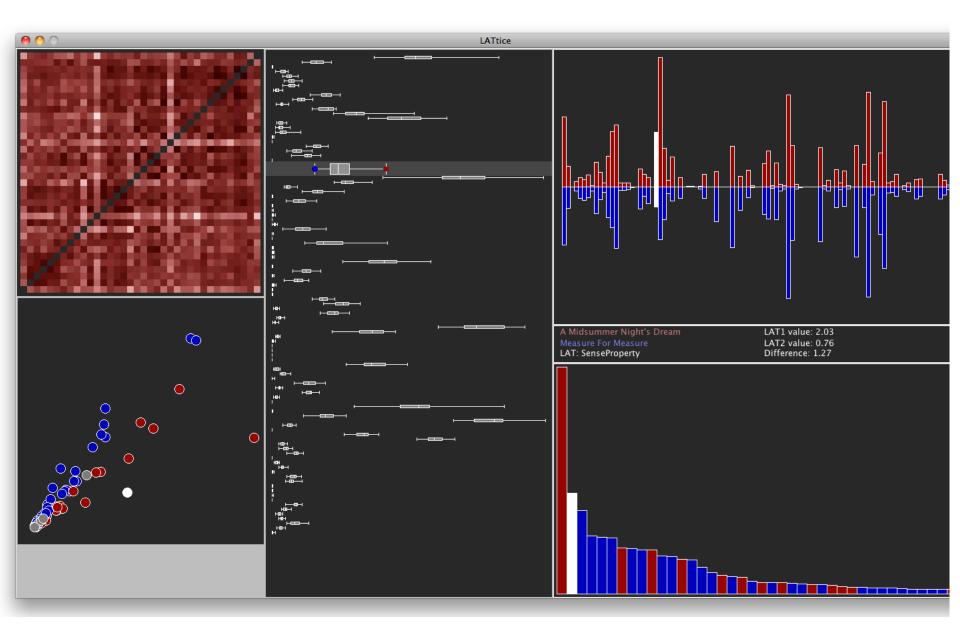
O nature, cesse! Come on, my son, in whom my house's name Must be digested, give a favour from you To sparkle in the spirits of my daughter, That she may quickly come. By my old beard, And every hair that's on't, Helen, that's dead, Was a sweet creature: such a ring as this, The last that e'er I took her at court, I saw upon her finger . Hers it was not . Now , pray you , let me see it ; for mine eye , While I was speaking , oft was fasten'd to't . This ring was mine; and , when I gave it Helen , I bade her , if her fortunes ever stood Necessitied to help , that by this token I would relieve her . Had you that craft , to reave her Of what should stead her most ? My gracious sovereign, Howe'er it pleases you to take it so, The ring was never hers. Son, on my life, I have seen her wear it; and she reckon'd it At her life's rate. I am sure I saw her wear it. You are deceived, my lord; she never saw it: In Florence was it from a casement thrown me, Wrapp'd in a paper, which contain'd the name Of her that threw it: noble she was, and thought I stood engaged: but when I had subscribed To mine own fortune and inform'd her fully I could not answer in that course of honour As she had made the overture, she ceased In heavy satisfaction and would never Receive the ring again . Plutus himself , That knows the tinct and multiplying medicine, Hath not in nature's mystery more science Than I have in this ring: 'twas mine, 'twas Helen's, Whoever gave it you, Then, if you know That you are well acquainted with yourself, Confess 'twas hers, and by what rough enforcement You got it from her: she call'd the saints to surety That she would never put it from her finger, Unless she gave it to yourself in bed, Where you have never come, or sent it us Upon her great disaster. She never saw it. Thou speak'st it falsely, as I love mine honour; And makest conjectural fears to come into me Which I would fain shut out. If it should prove That thou art so inhuman, --'twill not prove so; -- And yet I know not: thou didst hate her deadly, And she is dead; which nothing, but to close Her eyes myself, could win me to believe, More than to see this ring. Take him away. Guards seize My fore-past proofs, howe'er the matter fall, Shall tax my fears of little vanity, Having vainly fear'd too little. Away with him! We'll sift this matter further. If you shall prove This ring was ever hers , you shall as easy Prove that I husbanded her bed in Florence , Where yet she never was . I am wrapp'd in dismal thinkings . Gracious sovereign , Whether I have been to blame or no , I know not: Here's a petition from a Florentine, Who hath for four or five removes come short To tender it herself. I undertook it, Vanguish'd thereto by the fair grace and speech Of the poor suppliant, who by this I know Is here attending: her business looks in her With an importing visage; and she told me, In a sweet verbal brief, it did concern Your highness with herself. Upon his many protestations to marry me when his wife was dead, I blush to say it , he won me . Now is the Count Rousillon a widower : his vows are forfeited to me , and my honour's paid to him . He stole from Florence , taking no leave , and I follow him to his country for justice : grant it me , O king ! in you it best lies; otherwise a seducer flourishes, and a poor maid is undone. I will buy me a son-in-law in a fair , and toll for this : I'll none of him . The heavens have thought well on thee Lafeu , To bring forth this discovery . Seek these suitors : Go speedily and bring again the count . I am afeard the life of Helen , lady , Was foully snatch'd . Now , justice on the doers! I wonder , sir , sith wives are monsters to you , And that you fly them as you swear them lordship, Yet you desire to marry. What woman's that? I am, my lord, a wretched Florentine, Derived from the ancient Capilet: My suit, as I do understand, you know, And therefore know how far I may be pitied . I am her mother , sir , whose age and honour Both suffer under this complaint we bring , And both shall cease, without your remedy. Come hither, count; do you know these women? My lord, I neither can nor will deny But that I know them ; do they charge me further? Why do you look so strange upon your wife ? She's none of mine, my lord. If you shall marry, You give away this hand, and that is mine; You give away

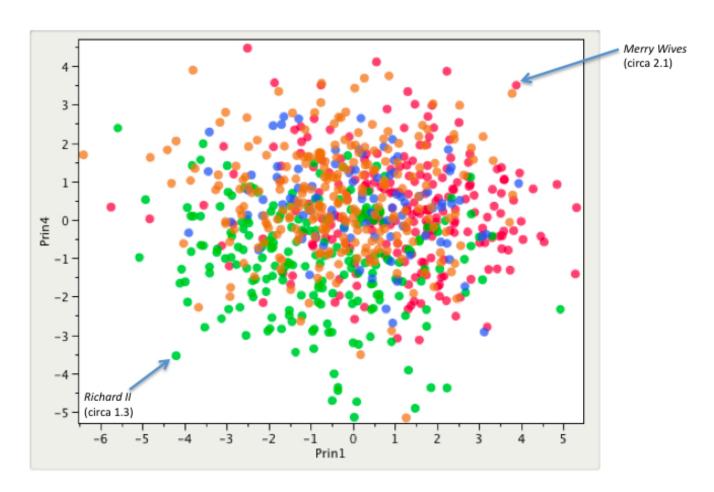


36 Shakespeare plays X 36 Shakespeare plays







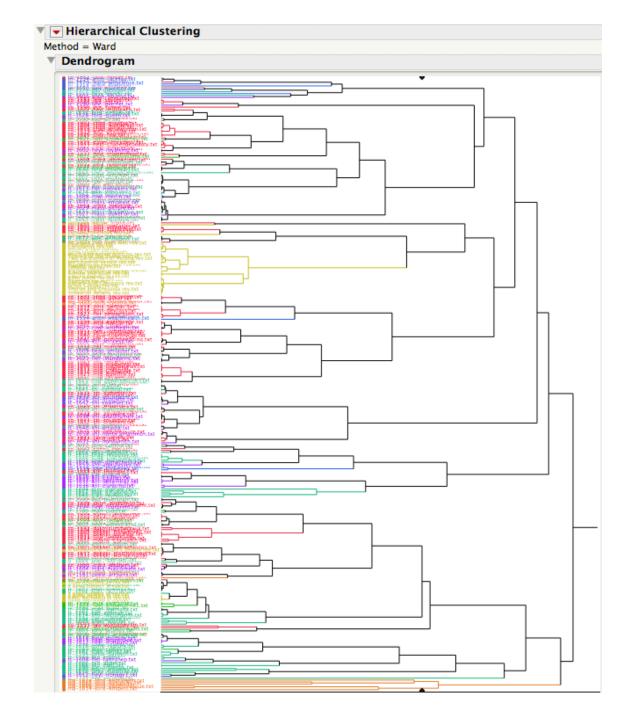


767 Pieces of Shakespeare in PCA Space

150 Years of Renaissance Drama (1519-1669): Joint experiment with Martin Mueller at Northwestern

What's producing the clusters?

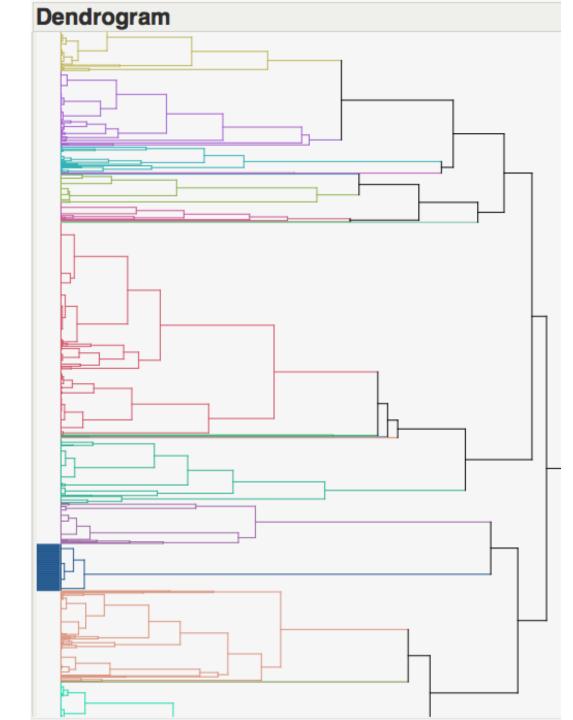
Ward's Clustering on Feature Set Counts in Individual Plays (as percentages of total tokens)



1000 Text Corpus

(VARDed)

Visualized with Ward's Clustering Method

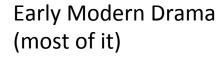


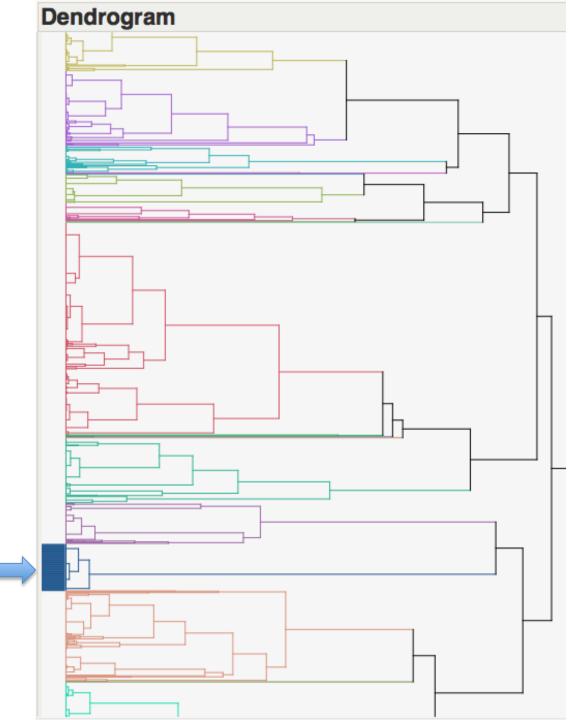
1000 Text Corpus

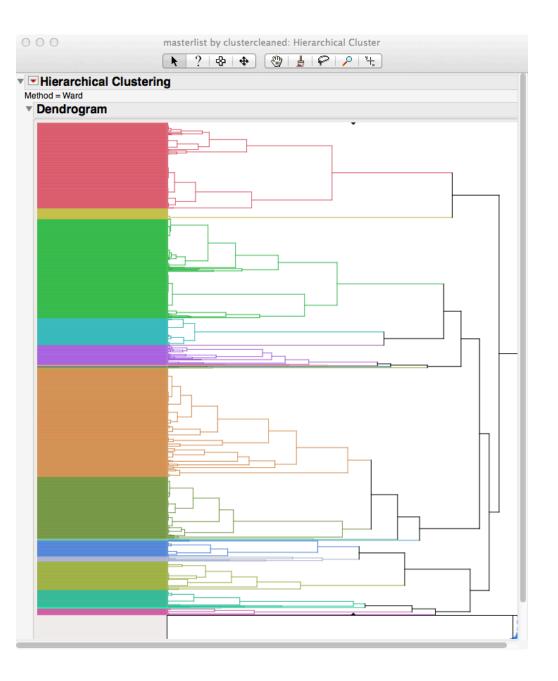
(VARDed)

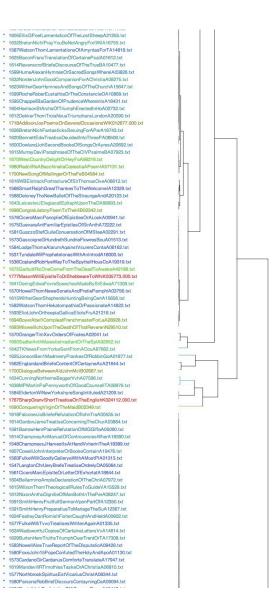
Visualized with

Ward's Clustering Method









* 1605EllisGPoetLamentationOfTheLostSheepA21255.txt * 1632BretonNichIPrayYouBeNotAngryForlWilA16755.txt

* 1614RavenscrofBriefeDiscourseOfTheTrueBA10477.txt * 1599HumeAlexanHymnesOrSacredSongsWhereiA03826.txt

* 1632NordenJohnGoodCompanionForAChristiaA08275.txt * 1623WitherGeorHymnesAndSongsOfTheChurchA15647.txt * 1599RocheRoberEustathiaOrTheConstancieOA10869.txt * 1595ChappellBaGardenOfPrudenceWhereinIsA18431.txt 1604HarrisonStArchsOfTriumphErectedInHoA02732.txt * 1612DekkerThomTroiaNouaTriumphansLondonA20090.txt

* 1626BretonNichFantasticksSeruingForAPerA16743.txt * 1620BennettEdwTreatiseDeuidedIntoThreePA08508.txt * 1600DowlandJohSecondBookeOfSongsOrAyresA20692.txt * 1615MurrayDaviParaphraseOfTheCIVPsalmeBA07923.txt 1670WestCountryDelightOrHeyFoA96216.txt 1680BadcliffeABacchinaliaCcelestiaAPoemIA57131.txt 1700NewSongOfMallingerOrTheFeB04584.txt * 1616WBElstrackPortractureOfSirThomasOveA08612.txt * 1566SmartRalphGreatThankesToTheWelcomeIA12329.txt * 1588DeloneyThoNewBalletOfTheStraungeAndA20123.txt * 1643LeicesterJElegiacallEpitaphUponTheDA88893.txt 1698CongratulatoryPoemToTheHiB02342.txt 1576CiceroMarcPanoplieOfEpistlesOrALookA00941.txt 1575GuevaraAntFamiliarEpistlesOfSirAnthA72222.txt * 1581GuazzoStefCiuileConuersationOfMSteeA02291.txt * 1573GascoigneGHundrethSundrieFlowresBouA01513.txt * 1584LodgeThomaAlarumAgainstVsurersContaA06162.txt * 1531TyndaleWilProphetelonasWithAnIntrodA16000.txt * 1536CoplandRobHyeWayToTheSpyttellHousCoA19319.txt * 1777MasonWilliEpistleToDrShebbeareToWhiK035773.000.txt * 1641DeringEdwaFovreSpeechesMadeBySrEdwaA71308.txt * 1570HowellThomNeweSonetsAndPretiePamphlA03756.txt * 1615WitherGeorShepherdsHuntingBeingCertA15656.txt 1582WatsonThomHekatompathiaOrPassionateA14822.txt * 1593EliotJohnOrthoepiaGallicaEliotsFruA21218.txt 1694BoverAbel1CompleatFrenchmasterForLaA28928.txt * 1693Wiswellichl InonTheDeathOfThatReverenN29510 tvt 1570GrangerTimXxvOrdersOfFoolesA02041.txt 1660SadlerAnthMajestjelrradiantOrTheSplA92952.txt 1642TKNewsFromYorkeSentFromACouA87662.txt * 1625.lonsonBen1MadmerryPrankesOfRobbinGoA01877.txt * 1562EnglandandBriefeContentOfCertayneAcA21644.txt * 1700DialogueBetweenAldJohnMclB02687.txt * 1634CunningNortherneBeggerVvhA07596.txt * 1638MPMartinPaPennyworthOfGoodCounsellTA08976.txt * 1584EldertonWiNewYorkshyreSongIntituledA21209.txt 1767SharpGranvShortTreatiseOnTheEnglishK024112.000.txt * 1690ConqueringVirginOrTheMaidB02349.txt * 1618FalconerJoBriefeRefutationOflohnTraA00535.txt * 1614GordonJameTreatiseConcerningTheChurA03884.txt * 1591BarrowHenrPlaineRefutationOfMGGiffaA05090.txt * 1614ChampneyAnManualOfControuersiesWherA18390.txt * 1548ChampneysJHarvestlsAtHandVvherinTheA18389.txt * 1607CowellJohnInterpreterOrBookeContainA19476.txt 1563FulkeWilliGoodlyGalleryeWithAMostPIA01313.txt * 1547LangtonChrUeryBrefeTreatiseOrdrelyDA05064.txt * 1561CiceroMarcEpistleOrLetterOfExhortatA18844.txt * 1604BellarminoAmpleDeclarationOfTheChriA07972.txt * 1615WilsonThomTheologicallRulesToGuideVA15529.txt * 1612NixonAnthoDignitieOfManBothInThePerA08247.txt * 1591SmithHenryFruitfullSermonVponPartOfA12350.txt 1591SmithHenryPreparatiueToMariageTheSuA12367.txt * 1624FeatleyDanRomishFisherCaughtAndHeldA00602.txt 1577FulkeWilliTvvoTreatisesWrittenAgainA01335.txt * 1624WadsworthJCopiesOfCertaineLettersVvA14614.txt 1629BurtonHenrTruthsTriumphOuerTrentOrTA17308.txt * 1583NowellAlexTrueReportOfTheDisputatioA08426.txt * 1580FoxeJohn15PopeConfutedTheHolyAndApoA01130.txt 1573CardanoGirCardanusComforteTranslateA17947.txt * 1619MandevillRTimothiesTaskeOrAChristiaA06810.txt 1577NorthbrookSpiritusEstVicariusChristA08344.txt * 1580ParsonsRobBriefDiscoursContayningCeA09094.txt

* 1587WatsonThomLamentationsOfAmyntasForTA14818.txt * 1625BaconFrancTranslationOfCertainePsalA01612.txt

2. What is the Docuscope dictionary?

Docuscope was created by David Kaufer and Suguru Ishizaki in the Department of English at Carnegie Mellon University (emphasis ours):

DocuScope is a text analysis environment with a suite of interactive visualization tools for corpus-based rhetorical analysis. [...] David created what we call the generic (default) dictionary, consisting of over 40 million linguistic patterns of English classified into over 100 categories of rhetorical effects. Suguru designed and implemented the analysis and visualization software, which can annotate a corpus of text against any dictionary of regular strings that are classified into a hierarchy of rhetorical effects.

You can learn more about Docuscope, David, and Suguru here:

DocuScope: Computer-aided Rhetorical Analysis - Carnegie Mellon University

The investigators and researchers of the Visualizing English Print project at the University of Wisconsin–Madison have partnered with David and Suguru to utilize Docuscope's dictionary of rules in our research and our tools, such as this one.

String-Matching Dictionaries

- Docuscope runs on a stringmatching algorithm for its 115 categories
- Whenever it hits a word it "knows" it categorizes as such



Ways of categorizing words

NOUNS VERBS ADJECTIVES PREPOSITIONS

Ways of categorizing words

WORDS I LIKE WORDS TERTTU LIKES WORDS MINNA LIKES

WORDS TANJA LIKES

Ways of categorizing words

WORDS THAT START WITH S WORDS THAT DO NOT START WITH S WORDS
THAT DO
NOT HAVE
S IN THEM
AT ALL

WORDS ONLY WITH S IN THEM

Gender in Docuscope

- There, kind of
 - Person roles, pronouns...

Pronoun LAT view

All's Well that Ends Well rev.txt

0 0 0	
First Person Options	1108 [4.09%]
Interior Thought	
Emotions	
Time Orientation	556 [2.05%]
Descriptive	1544 [5.71%]
Interpersonal Relations	200 [0.74%]
Public Reference	331 [1.22%]
Public Values	
Reason	1066 [3.94%]
Interaction	1522 [5.62%]
Topical Flow	685 [2.53%]
Pronoun	649 [2.40%]
Aside	36 [0.13%]
Elaborations	475 [1.76%]
Special Referencing	2177 [8.04%]
Reporting	1729 [6.39%]
Directing	210 [0.78%]
Directing Readers	65 [0.24%]
	213 [0.79%]

O nature, cesse! Come on, my son, in whom my house's name Must be digested, give a favour from you To sparkle in the spirits of my daughter, That she may quickly come. By my old beard, And every hair that's on't, Helen , that's dead , Was a sweet creature : such a ring as this , The last that e'er I took her at court , I saw upon her finger . Hers it was not . Now , pray you , let me see it ; for mine eye , While I was speaking , oft was fasten'd to't . This ring was mine; and , when I gave it Helen , I bade her , if her fortunes ever stood Necessitied to help , that by this token I would relieve her . Had you that craft , to reave her Of what should stead her most ? My gracious sovereign, Howe'er it pleases you to take it so, The ring was never hers. Son, on my life, I have seen her wear it; and she reckon'd it At her life's rate. I am sure I saw her wear it. You are deceived, my lord; she never saw it: In Florence was it from a casement thrown me, Wrapp'd in a paper, which contain'd the name Of her that threw it: noble she was, and thought I stood engaged: but when I had subscribed To mine own fortune and inform'd her fully I could not answer in that course of honour As she had made the overture, she ceased In heavy satisfaction and would never Receive the ring again . Plutus himself , That knows the tinct and multiplying medicine, Hath not in nature's mystery more science Than I have in this ring: 'twas mine, 'twas Helen's, Whoever gave it you . Then , if you know That you are well acquainted with yourself , Confess ' twas hers , and by what rough enforcement You got it from her: she call'd the saints to surety That she would never put it from her finger, Unless she gave it to yourself in bed, Where you have never come, or sent it us Upon her great disaster. She never saw it . Thou speak'st it falsely , as I love mine honour ; And makest conjectural fears to come into me Which I would fain shut out . If it should prove That thou art so inhuman , -- 'twill not prove so ; -- And yet I know not: thou didst hate her deadly, And she is dead; which nothing, but to close Her eyes myself, could win me to believe , More than to see this ring . Take him away . Guards seize My fore-past proofs , howe'er the matter fall , Shall tax my fears of little vanity, Having vainly fear'd too little. Away with him! We'll sift this matter further. If you shall prove This ring was ever hers, you shall as easy Prove that I husbanded her bed in Florence, Where yet she never was . I am wrapp'd in dismal thinkings . Gracious sovereign , Whether I have been to blame or no , I know not: Here's a petition from a Florentine, Who hath for four or five removes come short To tender it herself. I undertook it, Vanguish'd thereto by the fair grace and speech Of the poor suppliant, who by this I know Is here attending: her business looks in her With an importing visage; and she told me, In a sweet verbal brief, it did concern Your highness with herself. Upon his many protestations to marry me when his wife was dead, I blush to say it , he won me . Now is the Count Rousillon a widower : his vows are forfeited to me , and my honour's paid to him . He stole from Florence , taking no leave , and I follow him to his country for justice : grant it me , O king ! in you it best lies; otherwise a seducer flourishes, and a poor maid is undone. I will buy me a son-in-law in a fair , and toll for this : I'll none of him . The heavens have thought well on thee Lafeu , To bring forth this discovery . Seek these suitors : Go speedily and bring again the count . I am afeard the life of Helen , lady , Was foully snatch'd . Now , justice on the doers ! I wonder , sir , sith wives are monsters to you , And that you fly them as you swear them lordship , Yet you desire to marry . What woman's that ? I am , my lord , a wretched Florentine, Derived from the ancient Capilet: My suit, as I do understand, you know, And therefore know how far I may be pitied . I am her mother , sir , whose age and honour Both suffer under this complaint we bring , And both shall cease, without your remedy. Come hither, count; do you know these women? My lord, I neither can nor will deny But that I know them: do they charge me further? Why do you look so strange upon your wife ? She's none of mine , my lord . If you shall marry , You give away this hand , and that is mine ; You give away

Updated Docuscope Dictionary:

2259 [8.35%] 1050 [3.88%] .1539 [5.69%] Institutional Register 1112 [4.11%] Academic Register 1019 [3.77%] Future 334 [1.23%] 221 [0.82%] Personal Relations 256 [0.95%] Positive Relations 43 [0.16%] Inclusive Relations 153 [0.57%] Negative Relations 60 [0.22%] Reasoning 1068 [3.95%] Interactivity 1537 [5.68%] Address Other 1058 [3.91%] Elaboration 613 [2.27%] Reporting 1706 [6.30%] Reporting States 450 [1.66%] Reporting Events 791 [2.92%] Reporting Process 300 [1.11%] Reporting Change 165 [0.61%] Directives 210 [0.78%] Narrative 248 [0.92%] Character 1394 [5.15%] Personal Pronoun 640 [2.36%] Person Attribution 41 [0.15%]

Person Class 713 [2.63%]

Total words: 27062

All's Well that Ends Well rev.txt

In delivering my son from me, I bury a second husband. And I in going, madam, weep o'er my father's death anew: but I must attend his majesty's command, to whom I am now in ward, evermore in subjection. You shall find of the king a husband, madam; you, sir, a father: he that so generally is at all times good must of necessity hold his virtue to you; whose worthiness would stir it up where it wanted rather than lack it where there is such abundance. What hope is there of his majesty's amendment? He hath abandoned his physicians. madam; under whose practises he hath persecuted time with hope, and finds no other advantage in the process but only the losing of hope by time . This young gentlewoman had a father , --O , that ' had '! how sad a passage tis! --whose skill was almost as great as his honesty; had it stretched so far, would have made nature immortal , and death should have play for lack of work . Would , for the king's sake , he were living! I think it would be the death of the king's disease. How called you the man you speak of , madam? He was famous, sir, in his profession, and it was his great right to be so: Gerard de Narbon. He was excellent indeed, madam: the king very lately spoke of him admiringly and mourningly: he was skilful enough to have lived still, if knowledge could be set up against mortality. What is it, my good lord, the king languishes of? A fistula, my lord. I heard not of it before . I would it were not notorious . Was this gentlewoman the daughter of Gerard de Narbon ? His sole child , my lord, and bequeathed to my overlooking. I have those hopes of her good that her education promises; her dispositions she inherits, which makes fair gifts fairer; for where an unclean mind carries virtuous qualities, there commendations go with pity; they are virtues and traitors too; in her they are the better for their simpleness; she derives her honesty and achieves her goodness. Your commendations, madam, get from her tears . Tis the best brine a maiden can season her praise in . The remembrance of her father never approaches her heart but the tyranny of her sorrows takes all livelihood from her cheek. No more of this, ; go to, no more; lest it be rather thought you affect a sorrow than have it . I do affect a sorrow indeed , but I have it too . Moderate lamentation is the right of the dead, excessive grief the enemy to the living. If the living be enemy to the grief, the excess makes it soon mortal. Madam, I desire your holy wishes. How understand we that? Be thou blest , Bertram , and succeed thy father In manners , as in shape ! thy blood and virtue Contend for empire in thee, and thy goodness Share with thy birthright! Love all, trust a few, Do wrong to none; be able for thine enemy Rather in power than use, and keep thy friend Under thy own life's key: be cheque'd for silence, But never tax'd for speech. What heaven more will, That thee may furnish and my prayers pluck down, Fall on thy head! Farewell, my lord; 'Tis an unseason'd courtier; good my lord, Advise him. He cannot want the best That shall attend his love . Heaven bless him! Farewell, Bertram. The best wishes that can be forged in your thoughts be servants to you! Be comfortable to my mother, your mistress, and make much of her. Farewell, pretty lady : you must hold the credit of your father . O , were that all ! I think not on my father ; And these great tears grace his remembrance more Than those I shed for him. What was he like? I have forgot him: my imagination Carries no favour in't but Bertram's . I am undone : there is no living , none , If Bertram be away . ' Twere all one That I should love a bright particular star And think to wed it , he is so above me : In his bright radiance and collateral light Must I be comforted, not in his sphere. The ambition in my love thus plagues itself: The hind that would be mated by the lion Must die for love . ' Twas pretty , though plague , To see him every hour ; to sit and draw His arched brows , his hawking eye , his curls , In our heart's table ; heart too capable Of every line and trick of his sweet favour: But now he's gone, and my idolatrous fancy Must sanctify his reliques. Who comes here? One that goes with him . I love him for his sake . And yet I know him a notorious liar. Think him a great way fool

Gendered Binaries

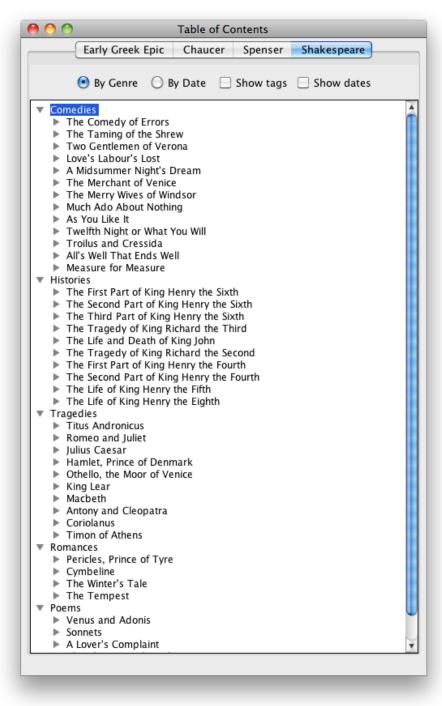
- Man/woman
- Lord/lady
- Knave/wench

Male vs Female in Shakespeare

- 1012 male characters
- 147 female characters
- 63 unknown, mixed or otherwise ambiguous characters

Collocation

 The likelihood of one lemma (word) to appear next to another lemma (word) in a corpus



Wordhoard

http://wordhoard.northwestern.edu

Collocation

- Dice coefficient test
 mean of two conditional probabilities:
 P(w1,w2) and P(w2,w1)
 - 2nd word in the bigram appears given the 1st word
 - 1st word in the bigram appears given the 2nd word

computed on a scale from 0-1

MAN	WOM*N	LORD	LADY	KNAVE	WENCH
young	fat	my	sovereign	lousy	light
proper	foolish	good	beauteous	cuckoldly	arm
good	mad	of	virtuous	lazy	kitchen
honorable	waxen	what	gallant	rascally	
no	pernicious	dear	honorable	cowardly	
poor	wretched	cardinal	husband	drunken	
dead	weak	if		scurvy	
	gentle	and		honest	
	sweet	you			
		will			

MAN/LORD	MAN/KNAVE	LORD/KNAVE	LADY/ WOMAN	WOMAN/ WENCH	LADY/WENCH
good	young	young	fair	poor*	sweet
of	honest	how	poor*	no	poor*
what	а	what	а		a
the	poor*	you	what		the
and	these	that	face		my
why	this				
that	as				
no	what				
for	that				
these					
who					
young					

Lysander. Away, you Ethiope!	
Demetrius. No, no; he'll Seem to break loose; take on as you would follow, But yet come not: you are a tame man, go!	1300
Lysander. Hang off, thou cat, thou burr! vile thing, let loose, Or I will shake thee from me like a serpent!	
Hermia. Why are you grown so rude? what change is this? Sweet love,—	1305
Lysander. Thy love! out, tawny Tartar, out! Out, loathed medicine! hated potion, hence!	
Hermia. Do you not jest?	
Helena. Yes, sooth; and so do you.	1310
Lysander. Demetrius, I will keep my word with thee.	
Demetrius. I would I had your bond, for I perceive A weak bond holds you: I'll not trust your word.	
Lysander. What, should I hurt her, strike her, kill he <mark>r dead?</mark> Although I hate her, I'll not harm her so.	1315
Hermia. What, can you do me greater harm than hate? Hate me! wherefore? O me! what news, my love! Am not I Hermia? are not you Lysander? I am as fair now as I was erewhile. Since night you loved me; yet since night you left me: Why, then you left me—O, the gods forbid!— In earnest, shall I say?	1320
Lysander. Ay, by my life; And never did desire to see thee more. Therefore be out of hope, of question, of doubt; Be certain, nothing truer; 'tis no jest That I do hate thee and love Helena.	1325
Hermia. O me! you juggler! you canker-blossom! You thief of love! what, have you come by night And stolen my love's heart from him?	1330
Helena. Fine, i'faith! Have you no modesty, no maiden shame, No touch of bashfulness? What, will you tear Impatient answers from my gentle tongue? Fie, fie! you counterfeit, you puppet, you!	1335
Hermia. Puppet? why so? ay, that way goes the game. Now I perceive that she hath made compare Between our statures; she hath urged her height; And with her personage, her tall personage, Her height, forsooth, she hath prevail'd with him. And are you grown so high in his esteem; Because I am so dwarfish and so low?	1340
How low am I, thou painted maypole? speak; How low am I? I am not yet so low But that my nails can reach unto thine eyes.	1345
Helena. I pray you, though you mock me, gentlemen, Let her not hurt me: I was never curst; I have no gift at all in shrewishness; I am a right maid for my cowardice: Let her not strike me. You perhaps may think, Because she is something lower than myself,	1350

A Midsummer Night's Dream III.ii.1299-1352

http://opensourceshakespeare.com

Earl of Suffolk. As by your high imperial majesty	5
I had in charge at my depart for France,	
As procurator to your excellence,	
To marry Princess Margaret for your grace,	
So, in the famous ancient city, Tours,	
In presence of the Kings of France and Sicil,	10
The Dukes of Orleans, Calaber, Bretagne and Alencon,	
Seven earls, twelve barons and twenty reverend bishops,	
I have perform'd my task and was espoused:	
And humbly now upon my bended knee,	
In sight of England and her lordly peers,	15
Deliver up my title in the queen	
To your most gracious hands, that are the substance	
Of that great shadow I did represent;	
The happiest gift that ever marquess gave,	
The fairest queen that ever king received.	20
Henry VI. Suffolk, arise. Welcome, Queen Margaret:	
I can express no kinder sign of love	4 2
Than this kind kiss. O Lord, that lends me life,	
Lend me a heart replete with thankfulness!	
For thou hast given me in this beauteous face	25
A world of earthly blessings to my soul,	
If sympathy of love unite our thoughts.	
Queen Margaret. Great King of England and my gracious lord,	
The mutual conference that my mind hath had,	
By day, by night, waking and in my dreams,	30
In courtly company or at my beads,	P
With you, mine alder-liefest sovereign,	
Makes me the bolder to salute my king	
With ruder terms, such as my wit affords	
And over-joy of heart doth minister.	35
Henry VI. Her sight did ravish; but her grace in speech,	
Her words y-clad with wisdom's majesty,	
Makes me from wondering fall to weeping joys;	
Such is the fulness of my heart's content.	
Lords, with one cheerful voice welcome my love.	40
All. [Kneeling] Long live Queen Margaret, England's	
happiness!	
Queen Margaret. We thank you all.	
	* *
flourish]	
Earl of Suffolk. My lord protector, so it please your grace,	45

2 Henry 6 I.i.1-45

http://opensourceshakespeare.com

I saw him not these many years, and yet I know 'tis he. We are held as outlaws: hence! Guiderius. He is but one: you and my brother search What companies are near: pray you, away; Let me alone with him. [Exeunt BELARIUS and ARVIRAGUS] Cloten. Soft! What are you That fly me thus? some villain mountaineers? I have heard of such. What slave art thou? Guiderius. A thing More slavish did I ne'er than answering A slave without a knock. Cloten. Thou art a robber, A law-breaker, a villain: yield thee, thief. Guiderius. To who? to thee? What art thou? Have not I An arm as big as thine? a heart as big? Thy words, I grant, are bigger, for I wear not My dagger in my mouth. Say what thou art, Why I should yield to thee? Cloten. Thou villain base, Know'st me not by my clothes? Guiderius. No, nor thy tailor, rascal, Who is thy grandfather: he made those clothes, Which, as it seems, make thee. Cloten. Thou precious varlet, My tailor made them not. Guiderius. Hence, then, and thank The man that gave them thee. Thou art some fool; I am loath to beat thee. Cloten. Thou injurious thief, Hear but my name, and tremble. Guiderius. What's thy name? Cloten. Cloten, thou villain. Guiderius. Cloten, thou double villain, be thy name, I cannot tremble at it: were it Toad, or Adder, Spider, 'Twould move me sooner. Cloten. To thy further fear, Nay, to thy mere confusion, thou shalt know I am son to the queen. Guiderius. I am sorry for 't; not seeming So worthy as thy birth. Cloten. Art not afeard? Guiderius. Those that I reverence those I fear, the wise: At fools I laugh, not fear them. Cloten. Die the death: When I have slain thee with my proper hand,

I'll follow those that even now fled hence, And on the gates of Lud's-town set your heads:

Cymbeline IV.ii.2405-2453

http://opensourceshakespeare.com

MAN	WOM*N	LORD	LADY	KNAVE	WENCH
young	fat	my	sovereign	lousy	light
proper	foolish	good	beauteous	cuckoldly	arm
good	mad	of	virtuous	lazy	kitchen
honorable	waxen	what	gallant	rascally	
no	pernicious	dear	honorable	cowardly	
poor	wretched	cardinal	husband	drunken	
dead	weak	if		scurvy	
	gentle	and		honest	
	sweet	you			
		will			

totals in SHAKESPEARE (size = 8159716)			totals in "400 PLAY CORPUS" size = 6247903 (incl. Shakespeare)			
nodeword	raw freq	per million	nodeword	raw freq	per million	
lord	2691	329.7908898	lord	12757	2041.80505	
lady	674	82.60091405	lady	6732	1077.48151	
man	1963	240.5720983	man	13937	2230.66842	
woman	580	71.08090527	woman	6336	1014.10024	
knave	175	21.44682487	knave	1018	162.934667	

wench

7.475750382

wench

61

1325

212.071152

	s in SHAKE iize = 8159		si	"400 PLAY ze = 62479 l. Shakespo	03		ls in EEB0 4106605	
nodeword	raw freq	per million	nodeword	raw freq	per million	nodeword	raw freq	per million
lord	2691	329.7908898	lord	12757	2041.80505	lord	527909	1319.775
lady	674	82.60091405	lady	6732	1077.48151	lady	56785	141.9625
man	1963	240.5720983	man	13937	2230.66842	man	1347806	3369.515
woman	580	71.08090527	woman	6336	1014.10024	woman	113476	283.69
knave	175	21.44682487	knave	1018	162.934667	knave	5595	13.9875
wench	61	7.475750382	wench	1325	212.071152	wench	4325	10.8125

Lysander. Away, you Ethiope!	
Demetrius. No, no; he'll Seem to break loose; take on as you would follow, But yet come not: you are a tame man, go!	1300
Lysander. Hang off, thou cat, thou burr! vile thing, let loose, Or I will shake thee from me like a serpent!	
Hermia. Why are you grown so rude? what change is this? Sweet love,—	1305
Lysander. Thy love! out, tawny Tartar, out! Out, loathed medicine! hated potion, hence!	
Hermia. Do you not jest?	
Helena. Yes, sooth; and so do you.	1310
Lysander. Demetrius, I will keep my word with thee.	
Demetrius. I would I had your bond, for I perceive A weak bond holds you: I'll not trust your word.	
Lysander. What, should I hurt her, strike her, kill he <mark>r dead?</mark> Although I hate her, I'll not harm her so.	1315
Hermia. What, can you do me greater harm than hate? Hate me! wherefore? O me! what news, my love! Am not I Hermia? are not you Lysander? I am as fair now as I was erewhile. Since night you loved me; yet since night you left me: Why, then you left me—O, the gods forbid!— In earnest, shall I say?	
Lysander. Ay, by my life; And never did desire to see thee more. Therefore be out of hope, of question, of doubt; Be certain, nothing truer; 'tis no jest That I do hate thee and love Helena.	1325
Hermia. O me! you juggler! you canker-blossom! You thief of love! what, have you come by night And stolen my love's heart from him?	1330
Helena. Fine, i'faith! Have you no modesty, no maiden shame, No touch of bashfulness? What, will you tear Impatient answers from my gentle tongue? Fie, fie! you counterfeit, you puppet, you!	1335
Hermia. Puppet? why so? ay, that way goes the game. Now I perceive that she hath made compare Between our statures; she hath urged her height; And with her personage, her tall personage, Her height, forsooth, she hath prevail'd with him. And are you grown so high in his esteem;	1340
Because I am so dwarfish and so low? How low am I, thou painted maypole? speak; How low am I? I am not yet so low But that my nails can reach unto thine eyes.	1345
lelena. I pray you, though you mock me, gentlemen, Let her not hurt me: I was never curst; I have no gift at all in shrewishness; I am a right maid for my cowardice: Let her not strike me. You perhaps may think, Because she is something lower than myself,	1350

```
6 6 6
                           SenseObject.txt
!DETERMINER HOUSES
!DETERMINER hove!
!DETERMINER HOVER OF
!DETERMINER hoy
!DETERMINER hoys
!DETERMINER HUDDLE OF
!DETERMINER HUFF OF
!DETERMINER hump
!DETERMINER hunk
!DETERMINER hunting dog
!DETERMINER hunting dogs
!DETERMINER hurdles
!DETERMINER HUSK OF
!DETERMINER hut
!DETERMINER ice
!DETERMINER ice cream
!DETERMINER image
!DETERMINER imprint
!DETERMINER INCANTATION OF
!DETERMINER INCISION OF
!DETERMINER infant
!DETERMINER insect
!DETERMINER insects
NETERMINER instep
   TERMINER iron
     MINER island
     NER ivory
    «MINER jackboot
  ZFERMINER jackboots
/DETERMINER jacket
!DETERMINER jackets
!DETERMINER jamboree
!DETERMINER jamborees
!DETERMINER jars
!DETERMINER java
!DETERMINER jell
!DETERMINER jells
!DETERMINER jersey
!DETERMINER jersies
!DETERMINER JET
!DETERMINER jet stream
!DETERMINER JETS
!DETERMINER jetty
!DETERMINER jewel
!DETERMINER jewelry
!DETERMINER jewels
!DETERMINER jigger
!DETERMINER jiggers
!DETERMINER jigsaw
!DETERMINER jigsaws
!DETERMINER john
!DETERMINER joint
!DETERMINER joints
!DETERMINER jotting
!DETERMINER jug
!DETERMINER jugs
```



PHASE 1 PHASE 2 PHASE 3

Collect



Profit

Scaling up

- Assumptions about uniformity:
 - Authors, genre, period, place, etc
- EEBO(-TCP) is a messy data set
- Statistics: not THE truth but A truth

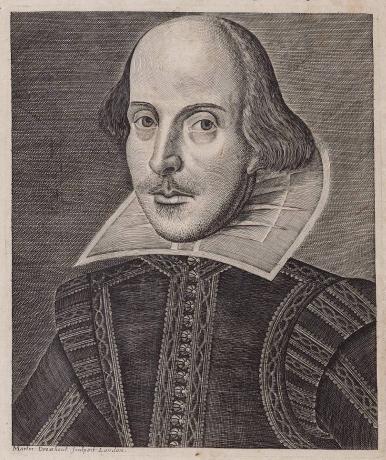
Scaling Up

- Start small, THEN build up to increasingly larger data sets
 - cf Visualizing English Print

SHAKESPEARES

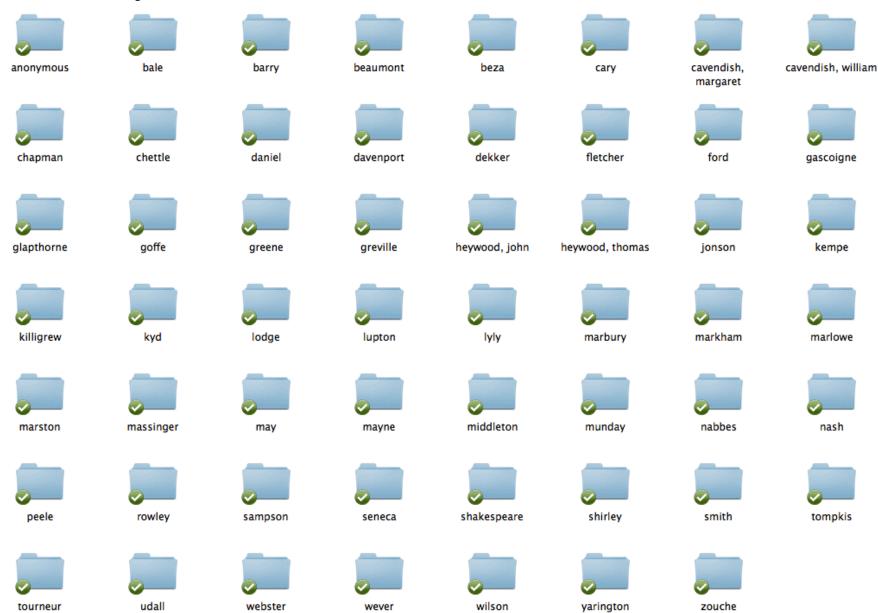
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LONDON Printed by Isaac Iaggard, and Ed. Blount. 1623

Early modern dramatists, 1512-1662



Distance vs Close Reading

- Distance reading:
 - Calculating collocational relationships in a corpus
- Close reading:
 - Looking at one potential collocational pair in detail

2 Questions:

- How are male and female described in Shakespeare?
- Do other playwrights use the same kinds of descriptions?

In Shakespeare ...

- Wom?n = 580 times
- *Man* = 2892 times

• Mad = 250 times

Male vs Female in Shakespeare

- 1012 male characters
- 147 female characters
- 63 unknown, mixed or otherwise ambiguous characters

Ophelia, the famous mad woman



Mad wom?n, Shakespeare

Concordar	ice Hits 3	
Hit	KWIC	File
1	e not like thee? is he not thine own? Thou fond mad woman, Wilt thou conceal this dark conspiracy	KING RICHARD II rev.txt
2	en to save their gifts. An if your wife be not a mad—woman, And know how well I have deserved the	Merchant of Venice rev.txt
3	p of vanity comes this way! They dance! they are mad women. Like madness is the glory of this life	Timon Of Athens rev.txt

Mad man, Shakespeare

Concord	ance Hits 3	
Hit	KWIC	File
1	o, art thou mad? Not mad, but bound more than a mad-man is; Shut up in prison, kept without my fo	Romeo and Juliet rev.txt
2	mangle me with that word 'banished'? Thou fond mad man, hear me but speak a word. 0, thou wilt	Romeo and Juliet rev.txt
3	an like, fool? Like a drowned man, a fool and a mad man: one draught above heat makes him a fool;	Twelfth Night rev.txt

In 400 plays...

- Wom?n = 6336 times
- *Man* = 13937 times

• Mad = 1833 times

mad wom?n in 400 plays

Concordance Hits 12 KWIC File co-1604-dekker-honwhore1.tx en it is forth , than heel believe I am changed . mad woman , what art doing ? either love me , or s 1 cs : father Anselmo , pray fetch him forth : this mad woman is his wife , and though she were not wi co-1604-dekker-honwhore1.tx varlets . hold Doll , thrust not a weapon upon a mad woman , officers step back into the tavern , y co-1605-dekker-northho.txt , and full of fables . another book of women , of mad women , women that were borne in March . are y co-1611-flet-nightwal.txt ark mad , man . I would fain see her mad , an old mad woman - prithee be patient . is like a Miller' co-1617-flet-chances.txt . they are all , all mad : I came from a world of mad women , mad as march hairs : get them in chain co-1621-flet-wildgoose.txt , and her bells were cut away . there is a dainty mad woman mr. comes in the Nick as mad as a march tc-1613-flet-noblekins.txt warrant her , she will do the rarest gambols . a mad woman ? we are made boys . and are you mad goo 8 tc-1613-flet-noblekins.txt tr-1619-rowl-lostlust.txt y ornament . madam , is the mad dame , and thence mad woman : define it so and I will borrow still t e not like thee? is he not thine own? Thou fond mad woman, Wilt thou conceal this dark conspiracy KING RICHARD II rev.txt 10 en to save their gifts. An if your wife be not a mad-woman, And know how well I have deserved the Merchant of Venice rev.txt 11

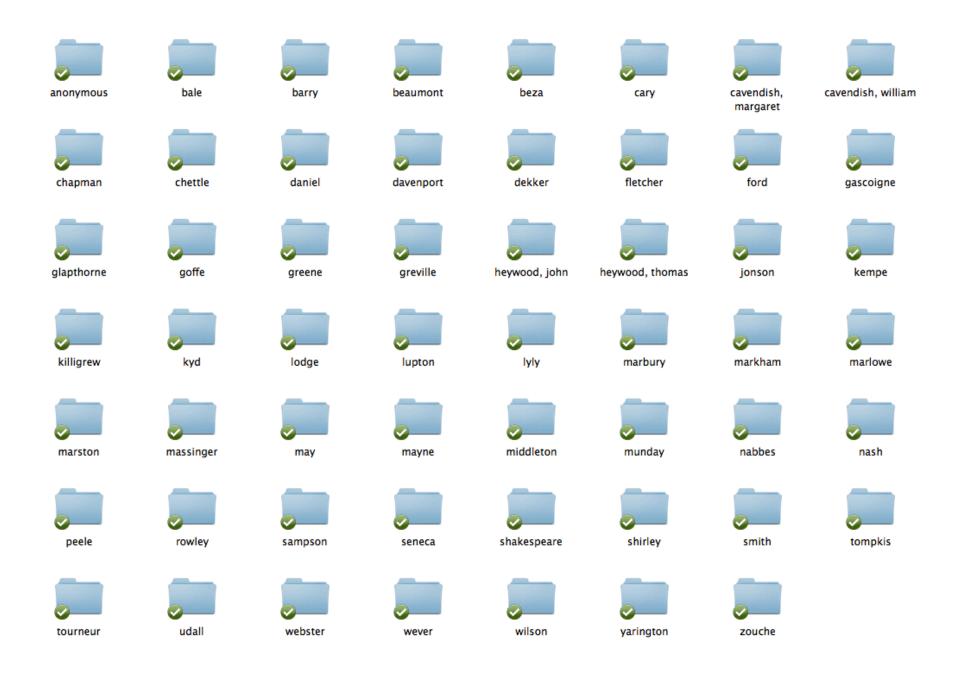
Timon Of Athens rev.txt

p of vanity comes this way! They dance! they are mad women. Like madness is the glory of this life

12

Who uses this construction of mad + man/woman the MOST?

Author	frequency of 'mad woman'	frequency of 'mad man'	total
Fletcher	5	4	9
Shakespeare	3	3	6
Dekker	3	3	6
Ford	0	4	4
Heywood	0	4	4
Jonson	0	3	3
Rowley	1	1	2
Munday	0	2	2
Shirley	0	2	2



mad + man/woman

- 9/55 authors use the construction mad + man/woman more than once
- 16/55 authors use the construction mad + man/woman overall

Mad lord:

Concorda	nce Hits 6	
Hit	KWIC	File
1	e to . I prithee do . this is the house where the mad lord did vow to do the deed , draw all your sw	co-1597-chap-humorday.txt
2	re is much love , all discord ends , what says my mad lord mayor to all this love ? oh my liege , th	co-1599-dekker-shoemaker.txt
3	en of warm summers more than he should . nay , my mad lord mayor (that shall be thy name) if any g	co-1599-dekker-shoemaker.txt
4	eir companies I lived as merry as an emperor . my mad lord mayor , are all these shoemakers ? all sh	co-1599-dekker-shoemaker.txt
5	ar together , from his wife . the very same : the mad lord Frampul ! and this same is his daughter !	co-1629-jons-newinn.txt
6	u see my cap? I have lost my gown. He's but a mad lord, and nought but humour sways him. He gav	Timon Of Athens rev.txt

(No hits for mad lady!)

Mad knave:

Concordar	nce Hits 2		
Hit	KWIC		File
1	l , and spent the money perhaps . well	l thou art a mad knave Musco , his absence will be a good subje	co-1598-jons-everhumor.txt

Mad wench

Concordance Hits 6					
Hit	KWIC	File			
1	surely the girl is grown frantic . faith mother a mad wench , I thank my stars . star me no stars .	co-1625-daven-trickdevil.txt			
2	e , his horns will guide you rightly . thou art a mad wench . oh rich ! trust me , not I , it is not	co-1599-dekker-shoemaker.txt			
3	bil . Sibil , welcome i'faith , and how dost thou mad wench ? Sib whore , welcome to London . godame	co-1599-dekker-shoemaker.txt			
4	Dutch supper , butter and onions . oh thou art a mad wench . sergeant carry this ell of cambric to	co-1604-dekker-westho.txt			
5	provide me a mistress . peace Doll , peace , come mad wench , I will make thee an honest woman , we	hi–1599–mun–oldcastle.txt			
6	devil laughs , when one thief robs another , come mad wench , we will to saint Albons , and revel in	hi-1599-mun-oldcastle.txt			

Who uses MAD + GENDERED NOUN the most?

- Dekker (11 instances; 6 from The Shoemaker's Holiday)
- Fletcher (10 instances total)
- Jonson (5 instances total)
- Munday (5 instances total)

Compare to: Shakespeare's 8 instances total

How does this compare?

- 'mad woman' is not very frequent in a corpus of early modern drama overall
- But neither are other constructions of mad + gendered noun
 - 60 total instances out of 7,305,366!

What does this tell us?

- Mad woman (and mad + gendered noun) is not used as much as we think it will be in Early Modern drama
- Is Shakespeare representative in his use of this construction? NO, NOT REALLY

Leads us to ask for other questions

- How do these results compare to all of early modern print?
 - Does 'mad woman' appear more frequently in other genres?
- What other words might be used to describe the same concept?

And back to Docuscope

- How else might we get at these categories using Docuscope?
 - Other ways of describing "mad"?
 - Negative Values, Negative Relations, Negative Emotions...?
 - Finding stock characters with Docuscope?

Hamlet, IV.v.2986-IV.vi. 3109*

000		Hamlet rev.txt	
Subjective Perception	394 [1.09%]	madness : LAT: Negative Emotion , Dimension: Negative Emotion	À
Confident	115 [0.32%]	Laertes . That drop of blood that's calm proclaims me bastard , Cries cuckold to my father , brands the harlot <u>Even</u>	
I I managed a lan	A D A ED AROLE	here , between the chaste unsmirched brow Of my true mother . What is the cause , Laertes , That thy rebellion	
Emotion Positive Emotion	1396 [3.87%]	looks so <mark>giant-like</mark> ? Let him go , Gertrude ; do not <u>fear</u> our person : <u>There's</u> such divinity doth hedge a king , That	
I OSILIVE EIIIOLIOII	460 [1.55/6]	treason can but peep to what it would , Acts little of his will <u>Tell me</u> , Laertes , Why thou art thus incensed . Let	
Negative Emotion	916 [2.54%]	him go , Gertrude . Speak , man . Where is my father ? Dead . But not by him <u>. Let him</u> demand his fill . How	
Descriptive	2747 [7.61%]	came he dead ? I'll not be juggled with : To hell , allegiance ! vows , to the blackest devil ! Conscience and grace ,	
Sensory Language	1662 [4.60%]	to the profoundest pit! I dare damnation. To this point I stand, That both the worlds I give to negligence, Let	
Space Movement	884 [2.45%]	come what comes ; only I'll be revenged Most thoroughly for my father . Who shall stay you ? My will , not all the	
Dialog-Orality	201 [0.56%]	world : And for my means , I'll husband them so well , They shall go far with little . Good Laertes , If you desire to	
Institutional Register	1140 [3.16%]	know the certainty <u>Of your</u> dear father's <u>death</u> , is't writ <u>in your</u> revenge, That, swoopstake, <u>you</u> will draw both	
Public Sources	342 [0.95%]	friend and foe , Winner and loser ? None but his enemies . Will you know them then ? To his good friends thus	
Public Responsibility Positive Values	26 [0.07%]	wide I'll ope my arms; And like the kind life-rendering pelican, Repast them with my blood. Why, now you speak	
Positive Values Positive Values	573 [1.59%]	Like a good child and a true gentleman . That I am guiltless of your father's death , And am most sensible in grief	
Innovation	2 [0.04%]	for it , It shall as level to your judgment pierce As day does to your eye . Let her come in . How now ! what noise	
Negative Values	100 [0.01%]	is that ? O heat , dry up my <u>brains</u> ! <u>tears</u> seven times <u>salt</u> , <u>Burn out</u> the sense and <u>virtue</u> of mine eye! By heaven , <u>thy madness</u> shall be paid by weight , Till our scale turn the <u>beam</u> . O <u>rose of</u> May! Dear maid , kind	
Academic Register	1444 [4 00%]	sister , sweet Ophelia! O heavens! is't possible , a young maid's wits Should be as moral as an old man's life?	
Future	413 [1 14%]	Nature is fine in love, and where ' tis fine, It sends some precious instance of itself After the thing it loves. They	
Past		bore him barefaced on the bier; Hey non nonny, nonny, hey nonny; And in his grave rain'd many a tear:	
Personal Relations		Fare you well , my dove ! Hadst thou thy wits , and didst persuade revenge , It could not move thus . You must	
Reasoning		sing a-down a-down, An you call him a-down-a. O, how the wheel becomes it! It is the false steward, that stole	
Interactivity		his master's daughter . This nothing's more than matter . There's rosemary , that's for remembrance ; pray , love	
Inquiry		, remember : and there is pansies . that's for thoughts . A document in madness , thoughts and remembrance	
Address Other	1257 [3.48%]	fitted . There's fennel for you , and columbines : there's rue for you ; and here's some for me : we may call it	
Directing Address		herb-grace o' Sundays : O you must wear your rue with a difference . There's a daisy : I would give you some	
Request		violets , but they withered all when my father died : they say he made a good end , For bonny sweet Robin is all	
Following Up		my joy . Thought and affliction , passion , hell itself , She turns to favour and to prettiness . And will he not come	
Feedback	0 [0.00%]	again ? And will he not come again ? No , no , he is <u>dead</u> : Go to <u>thy</u> <u>death-bed</u> : He never will come again . His	
Positive Feedback	0 [0.00%]	beard was as white as snow , All flaxen was his poll : He is gone , he is gone , And we cast away moan : God ha '	
Negative Feedback	0 [0.00%]	mercy on his soul! And of all Christian souls , I pray God . God be wi ' ye . Do you see this , O God? Laertes , I	_
Prior Knowledge	4 [0.01%]	must commune with your grief, Or you deny me right. Go but apart, Make choice of whom your wisest friends	
Elaboration		you will . And they shall hear and judge ' twixt you and me : If by direct or by collateral hand They find us touch'd	
Reporting States		, we will our kingdom give , Our crown , our life , and all that we can ours , To you in satisfaction ; but if not , Be	
Reporting States Reporting Events		you content to lend your patience to us , And we shall jointly labour with your soul To give it due content . Let	
Reporting Process		this <u>be</u> so ; His means of <u>death</u> , his obscure funeral No <u>trophy</u> , <u>sword</u> , nor <u>hatchment</u> o'er his <u>bones</u> , No <u>noble</u> rite nor formal ostentation Cry to <u>be heard</u> , as ' twere from heaven to earth , That I must call't in question . So	
Reporting Change		you shall ; And where the offence is let the great axe fall . I pray you , go with me . What are they that would	
Directives		speak with me? Sailors, sir: they say they have letters for you, Let them come in. I do not know from what	
Narrative		part of the world I should be greeted, if not from Lord Hamlet. God bless you, sir, Let him bless thee too. He	
Total words: 36104	V (0.00,0)	shall , sir , an't please him <u>There's</u> a <u>letter for you</u> , sir ; it comes from the ambassador that was bound for	*
		shan fair faire prease him i there's a letter for you fair file comes from the ambassador that was bound for	-

^{*}Using Open Source Shakespeare's through-line numbering system.

More info here: http://www.opensourceshakespeare.org/info/technicaldetails.php

This afternoon: CEEC and Docuscope Metsätalo (Unioninkatu 40) room A114