

# MultiVersioner

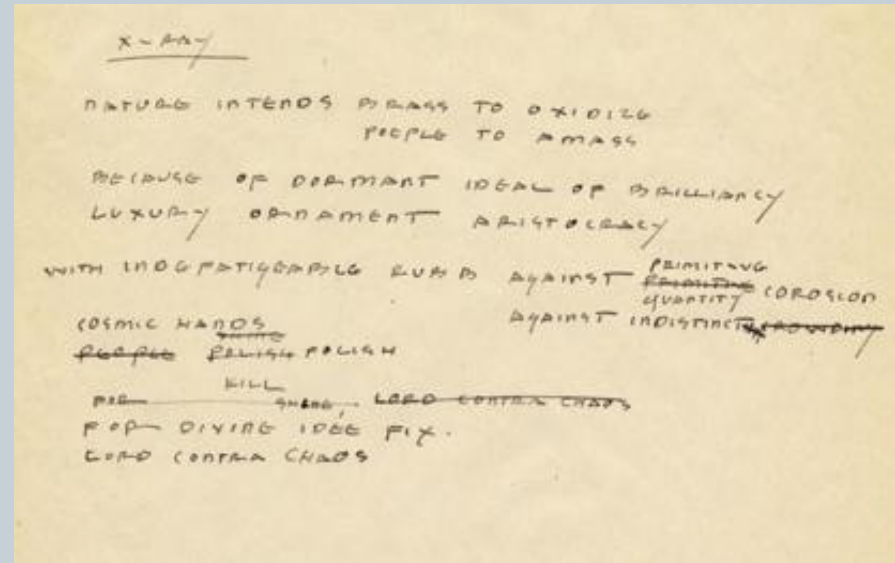


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# Background and Motivation



- Visualize multiple versions across multiple documents



- **Task - Analyzing Poems**

- User - Tanya Clement
- grad student in the English department
- Analyzes the experimental style of the poets
- She will use our tool to compare several versions of poems

# Background and Motivation



- **Current tools**
  - Content based comparison
  - Visual comparison of only two documents
- **Visual comparison of multiple documents?**

# Versioning Machine



- **Versioning Machine**
  - An existing program that enables viewing multiple versions of one document
- **Limitations of Versioning Machine**
  - No search capabilities
  - Single document
  - Horizontal scrolling

# Versioning Machine



Purgatory Lilt/ Statements by Circumstan... -- The Versioning Machine 4.0 - Mozilla Firefox
file:///D:/Courses/CMSC734/term\_project/versioning\_machine/v-machine\_viz/samples/statements-ii.xml

Powered by **VM4.0**
Purgatory Lilt/ Statements by Circumstan... has 11 versions

[New Version](#) • [Bibliographic Info](#) • [Help Viewer](#) • Line Numbers:  • [Popup notes](#) • [Index of texts](#)

Witness 1: va2	Witness 2: va3	Witness 3: va9	Witness 4: va4	Witness 5: va5
<p><u>PURGATORY LILT</u></p> <p>1 GERMANY'S REMAINS ARE PERMEATED BY DECAY REEK THROUGHOUT .</p> <p>2 EFFECT OF BRAIN SOFTENING BACKSLIDE .</p> <p>3 TURN FACE : IMPUDENCE ASSUMED FORWARDNESS - GESTURE IMPORTED - UNRELATED FOREIGN TO GERMAN BUILD</p> <p>4 FUTURE WASHED FACADE UPON ARCHITECTURE CRUMBLING SET</p> <p>5 CHEEKFLUSH PAINTED ARCHITECTURE - HECTIC UPON SEER SPINES SCULL</p> <p>6 CIRCULATION BATED SENILE .</p> <p>7 RELICS OF CULTUREDIGNITY - THAT WAS JUST -</p> <p>8 BETWIXT - DESOLATE - LOOM -</p> <p>9 UPTORN</p> <p>10 LIFE APART .</p> <p>11 VEIN SEEPING - COUNTENANCE WANING - IN BLASTCHILLS WINTRY SUN -</p> <p>12 GAUNT</p> <p>13 FINAL</p> <p>14 BLEAK.</p>	<p><u>PURGATORY LILT</u></p> <p>1 GERMANY'S REMAINS ARE PERMEATED BY DECAY REEK THROUGHOUT</p> <p>2 EFFECT OF BRAIN SOFTENING BACKSLIDE . .</p> <p>3 TURN FACE : IMPUDENCE ASSUMED FORWARDNESS - GESTURE IMPORTED - UNRELATED FOREIGN TO GERMAN BUILD</p> <p>4 FUTURE WASHED FACADE UPON ARCHITECTURE CRUMBLING SET</p> <p>5 CHEEKFLUSH PAINTED HECTIC UPON SEER SPINES SCULL .</p> <p>6 CIRCULATION BATED SENILE .</p> <p>7 RELICS OF CULTUREDIGNITY - THAT WAS JUST -</p> <p>8 BETWIXT DESOLATE LOOM -</p> <p>9 UPTORN</p> <p>10 LIFE APART</p> <p>11 VEIN SEEPING - COUNTENANCE WANING IN BLASTCHILLS WINTRY SUN -</p> <p>12 GAUNT</p> <p>13 FINAL</p> <p>14 BLEAK.</p> <p>15 INGHOSTCRAZED STIFFLED</p>	<p><u>STATEMENTS OF CIRCUMSTANCES . I.</u></p> <p>1 GERMANY'S REMAINS ARE PERMEATED WITH DISSOLUTION REEK BY</p> <p>2 EFFECT OF SOFTENING OF BRAINS BACKSLIDE . DULLNESS</p> <p>3 TURN COUNTENANCE : IMPUDENTLY ASSUMED FORWARDNESS - IMPORTED FOREIGN GESTURE UNRELATED TO GERMAN STRUCTURE</p> <p>4 FUTURE CALLOMINED FACADE UPON CRUMBLING ARCHITECTURE -</p> <p>5 ARTIFICIALLY FLUSHED PAINTED CHEEKUPON OF HECTIC SCULL DEATHSCULL OF BROKEN WITHERED SPINES SCULL FEATURE</p> <p>6 CIRCULATION STOPPED RECEDING SENILE</p> <p>7 BETWIXT LOOM-RELICS OF CULTUREDIGNITY . . DESOLETE JUST -</p> <p>8 DESOLATE LOOM UNNOURISHED</p> <p>10 LIFE APART -</p> <p>11 SEEPING CHILL OF WINTRY SOILSUN .</p>	<p><u>PURGATORY LILT STATEMENT BY CIRCUMSTANCED ME</u></p> <p>1 GERMANY'S IS BY DISSOLUTION REEK THROUGHOUT</p> <p>2 EFFECT OF BRAIN SOFTENINGS BACKSLIDE</p> <p>3 TURN FACE IMPUDENCE ASSUMED FORWARDNESS - GESTURE IMPORTED - UNRELATED FOREIGN TO BUILD</p> <p>4 FUTURE WASHED ARCHITECTURE CRUMBLING SET</p> <p>5 CHEEKFLUSH PAINTED HECTIC UPON SEER SPINES SCULL</p> <p>6 BATED SENILE</p> <p>7 ED DIGNITY - THAT WAS JUST -</p> <p>8 BETWIXT - DESOLATE - LOOM -</p> <p>9 UPTORN</p> <p>10 UNNOURISHED - LIFE APART .</p> <p>11 VEIN SEEPING - COUNTENANCE WANING IN BLASTCHILLS WINTRY SUN .</p> <p>12 GAUNT-DROOPING DESOLATE</p> <p>13 FINAL</p> <p>14 BLEAK.</p> <p>15 FROM STIFFLED APPALLED IN STIFFLED-INGHOSTCRAZED STIFFLED PALLTHRAL .</p>	<p><u>STATEMENTS BY CIRCUMSTANCED ME</u></p> <p>1 GERMANY'S IS WBY DISSOLUTION REEK</p> <p>2 EFFECT OF SOFTENING OF BRAIN BACKSLIDE MOVE</p> <p>3 TURN FACE IMPUDENCE ASSUMED FORWARDNESS - IMPORTED GESTURE UNRELATED FOREIGN TO BUILD</p> <p>4 FUTURE CALLOMINED ARCHITECTURE CRUMBLING SET</p> <p>5 CHEEKFLUSH HECTICPAINTED HECTIC UPON SEERED SPINES SCULL</p> <p>6 BATED SENILE</p> <p>7 DIGNITY - THAT WAS JUST -</p> <p>8 BETWIXT - DESOLATE LOOM .</p> <p>9 UPTORN -</p> <p>10 UNURISHED LIFE APART</p> <p>11 VEIN SEEPING COUNTENANCE WANING IN BLASTCHILLWINTRY SEASONSUN</p> <p>12 DESOLATION FINAL BLEAK</p> <p>13 FAMISHED</p> <p>14 BLEAK.</p>

start
2 MATLAB
4 Windows E...
Windows Medi...
Microsoft Excel...
VirtualDub 1.8...
junkfood.cs.u...
FinalProjectPre...
Mid-Semester P...
Purgatory Lilt/ ...
2:07 AM

# MultiVersioner



- **User Requirements**
  - Multiple documents with several versions
  - Easy search
- **Overview and Details on Demand**
  - Box View (overview)
  - Text View (detailed view)
- **Search**
  - Search for words and lines
  - Color-coded highlighting
- **Statistical Analysis**
  - Frequency table

# MultiVersioner



- **Techniques**
  - **Post-it:** details in overview
    - ✦ Leave interesting information on interface
  - **Utilizing screen space**
    - ✦ Versions automatically adjust to fit screen width
    - ✦ User adjustable panels
  - **Synchronizing**
    - ✦ Scrolling through one document would cause the other document to scroll down as well
    - ✦ Synchronizing overview and detail view

# Demo





# Summary



- Comparing multiple documents with multiple versions
- Search and Statistical Analysis
- Highlighting
- Potential applications in other domains
  - EULAs
  - Temporal Changes

# Questions?

