

Jakob Voss

We were promised Xanadu

*The original hypertext system and
how we can benefit from its concepts*

presented at
Wikimania 2010 Gdańsk

Sunday, July 11th 2010

digital hypertext systems



Jimbo Wales
Wikipedia
2001

- + Open Content
- Limited Scope (Encyclopaedia)



Ward Cunningham
WardsWiki
1995

- + Easy editing
- + Versioning
- + Backlinks
- Centralized



Tim Berners-Lee
World Wide Web
1989

- + Identifiers (URI & URL)
- + Distributed
- ⚠ Very limited type of Hypertext



Ted Nelson
Xanadu
1960

- + Deep digital documents
- Mostly Vaporware
- ⚠ Important concepts

WWW is broken

“HTML is precisely what we were trying to PREVENT – ever-**breaking links**, links going **outward only**, quotes you **can't follow** to their origins, no **version** management, no **rights** management.”



*Ted Nelson's Computer Paradigm,
Expressed as One-Liners (1999)*

Hyperlinks is more

- Docuverse
- Versioning
- Transclusion
- Deep links
- Compound Documents
- ...

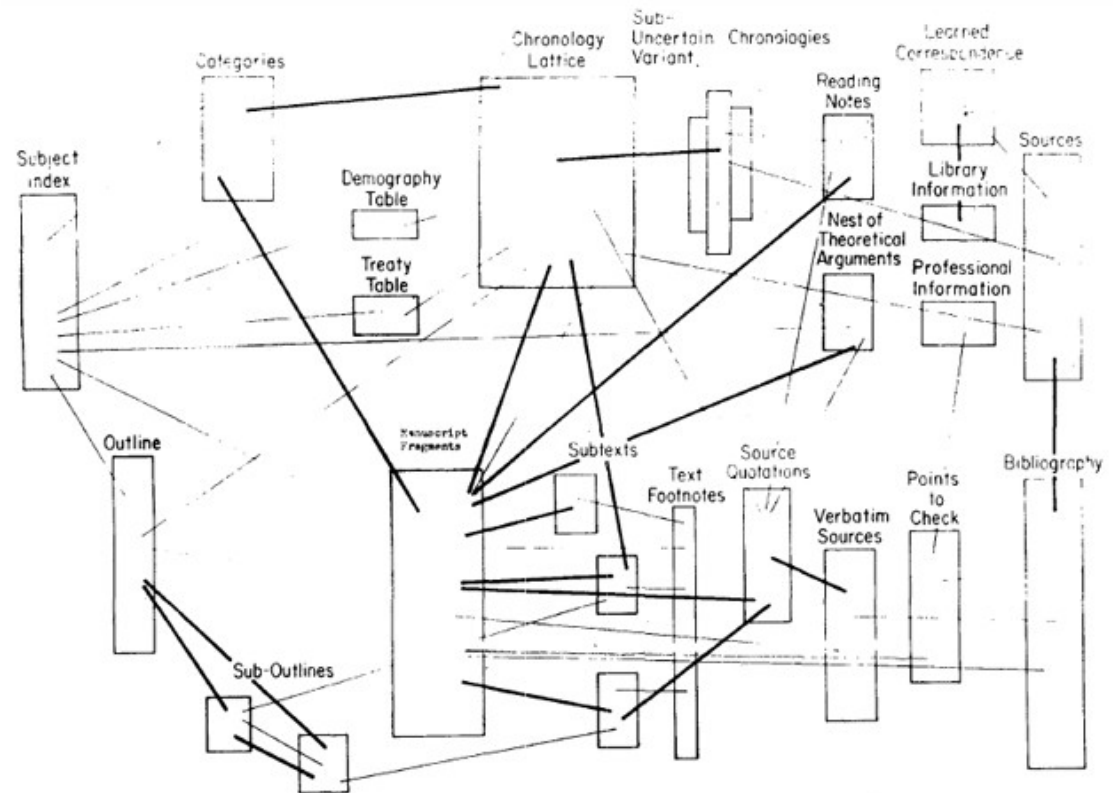


FIGURE 4—ELF's capacity for total filing: hypothetical use by historian. Thin lines indicate links; heavy rules indicate some of same entries.



A File Structure for the Complex, the Changing and the Indeterminate (1965)

Docuverse light

Vitamin C

From Wikipedia, the free encyclopedia
(Difference between revisions)

Revision as of 17:48, 23 February 2007 (edit)

Lumos3 (Talk | contribs)

(*←*Plant sources - Remove special mention of Amla, its already in the table)

— Older edit

Current revision (04:17, 24 February 2007) (edit) (undo)

Jrockley (Talk | contribs)

(remove vandalism and cleanup scurvy section)

Line 73:

=== Deficiency disease ===

[[Scurvy]] (a form of [[avitaminosis]]) results from lack of vitamin C, **which is required** for correct [[collagen]] synthesis **in humans**. Scurvy leads to the formation of liver spots on the skin, spongy gums, and bleeding from all [[mucous membrane]]s. The spots are most abundant on the thighs and legs, and a person with the ailment looks pale, feels depressed, and is partially immobilized. In advanced scurvy there are open, [[suppuration|suppurating]] wounds and loss of [[teeth]].

Scurvy was at one time common among [[sailor]]s, [[pirate]]s and others who were on [[ship]]s that were out to sea longer than perishable [[fruit]]s and [[vegetable]]s could be stored **and by [[soldier]]s who were similarly separated from these foods for extended periods.** It was described by [[Hippocrates]] (c. 460 BC–c. 380 BC). Its cause and cure has been known in many native cultures since prehistory. For example, in 1536, the French explorer [[Jacques Cartier]], exploring the [[Saint Lawrence River|St. Lawrence River]], used the local natives' knowledge to save his men who were dying of scurvy. He boiled the needles of the [[Thuja(arbor vitae)] tree (Eastern White Cedar) to make a tea that was later shown to contain 50 mg of vitamin C per 100 grams.<ref name=martini>{{cite journal |id=PMID 12422875 |title=Jacques Cartier witnesses a treatment for scurvy |accessdate=2007-02-19 |date=June 2002 |author=Martini E |journal=Vesalius: acta internationales historiae medicinae }}</ref>

No bodily organ stores vitamin C.<ref>{{Fact|date=February 2007}}</ref> and so the body soon depletes itself if fresh supplies are not consumed through the digestive system.

Line 141:

=== Possible other vitamin C deficiencies ===

[[Image:Endo dysfunction Athero.PNG|thumb|Atherosclerosis]] has been hypothesised to be a vitamin C deficiency disease]]

Rath (who has killed numerous people while promoting clinically untriated drugs in townships across South Africa) made a typically strange statement: that during the [[ice age]], when vitamin C was scarce, [[natural selection]] favoured human individuals who could repair arteries with a layer of [[cholesterol]]. He suggests that although eventually harmful, cholesterol lining of artery walls would be beneficial in that it would keep the individual alive until access to vitamin C allowed arterial damage to be repaired. If this is true, [[atherosclerosis]] is in fact a vitamin C deficiency disease.

The established RDA has been criticised by Pauling to be one that will prevent [[acute (medical)|acute]] [[scurvy]], and is not necessarily the dosage for optimal health.<ref>{{Fact|date=February 2007}}</ref>

Line 73:

=== Deficiency disease ===

[[Scurvy]] (a form of [[avitaminosis]]) results from lack of vitamin C, **as an effect of its requirement** for correct [[collagen]] synthesis. Scurvy leads to the formation of liver spots on the skin, spongy gums, and + bleeding from all [[mucous membrane]]s. The spots are most abundant on the thighs and legs, and a person with the ailment looks pale, feels depressed, and is partially immobilized. In advanced scurvy there are open, [[suppuration|suppurating]] wounds and loss of [[teeth]], **and eventually, death.**

Historically,scurvy was common among those with poor access to fresh fruit and vegetables, such as [[sailor]]s, [[pirate]]s and others who were on [[ship]]s that were out to sea longer than perishable [[fruit]]s and [[vegetable]]s could be stored, **as well as isolated [[soldier]]s.** The earliest documented case was described by [[Hippocrates]] around the year 400 BC.

The first attempt to give scientific basis for the cause of scurvy was by a ship's surgeon in the British [[Royal Navy]], [[James Lind]]. While at sea in May 1747, Lind provided some crew members with two oranges and one lemon per day, in addition to normal rations, while others continued on [[cider]], [[vinegar]], [[sulphuric acid]] or [[seawater]], along with their normal rations. The results conclusively showed that something in the citrus fruits prevented the disease, a property later described as "antiscorbatic". Vitamin C was isolated in the 1920s by [[Albert Szent-Györgyi]] and was shown to be ascorbic acid.

No bodily organ stores vitamin C.<ref>{{Fact|date=February 2007}}</ref> and so the body soon depletes itself if fresh supplies are not consumed through the digestive system.

Line 141:

=== Possible other vitamin C deficiencies ===

[[Image:Endo dysfunction Athero.PNG|thumb|Atherosclerosis]] has been hypothesised to be a vitamin C deficiency disease]]

Rath hypothesised that during the [[ice age]], when vitamin C was scarce, [[natural selection]] favoured human individuals who could repair arteries with a layer of [[cholesterol]]. He suggests that although eventually harmful, cholesterol lining of artery walls would be beneficial in that it would keep the individual alive until access to vitamin C allowed arterial damage to be repaired. If this is true, [[atherosclerosis]] is in fact a vitamin C deficiency disease.

The established RDA has been criticised by Pauling to be one that will prevent [[acute (medical)|acute]] [[scurvy]], and is not necessarily the dosage for optimal health.<ref>{{Fact|date=February 2007}}</ref>

Memex trails



Versioning light

(cur) = difference from current version, (prev) = difference from preceding version,
m = minor edit, → = section edit, ← = automatic edit summary
 (latest | earliest) View (newer 50 | older 50) (20 | 50 | 100 | 250 | 500)

Compare selected revisions

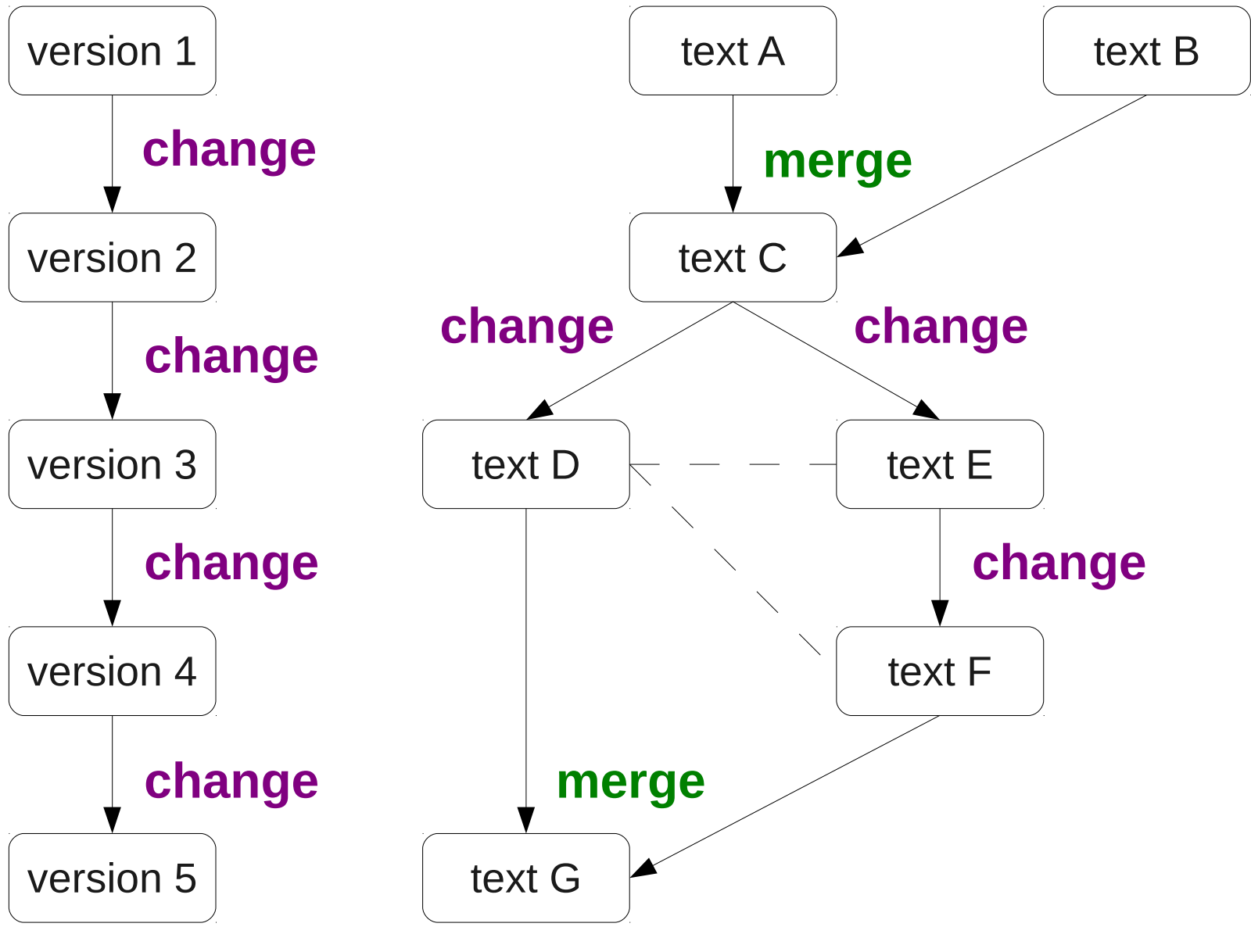
- (cur | prev) 08:15, 26 June 2008 Kotniski (talk | contribs) **m** (32,454 bytes)
(Reverted edits by 81.247.219.2 (talk) to last version by Kotniski) (undo)
- (cur | prev) 22:26, 25 June 2008 81.247.219.2 (talk) (32,393 bytes) (undo)
- (cur | prev) 07:16, 25 June 2008 Kotniski (talk | contribs) **m** (32,454 bytes)
(Reverted edits by 81.242.180.93 (talk) to last version by Olessi) (undo)
- (cur | prev) 22:21, 24 June 2008 81.242.180.93 (talk) (32,449 bytes) (undo)
- (cur | prev) 22:18, 24 June 2008 81.242.180.93 (talk) (32,450 bytes) (undo)
- (cur | prev) 22:17, 24 June 2008 81.242.180.93 (talk) (32,447 bytes) (undo)
- (cur | prev) 22:15, 24 June 2008 81.242.180.93 (talk) (32,453 bytes) (undo)
- (cur | prev) 22:10, 24 June 2008 Olessi (talk | contribs) **m** (32,454 bytes) (rv) (undo)
- (cur | prev) 22:03, 24 June 2008 81.242.180.93 (talk) (32,452 bytes) (undo)
- (cur | prev) 13:05, 23 June 2008 213.38.11.86 (talk) (32,454 bytes)
(→Transportation: added a definite article where one was needed) (undo)
- (cur | prev) 07:50, 20 June 2008 Udibi (talk | contribs) **m** (32,450 bytes)

2005	2006	2007
23 pages	22 pages	16 pages
Mar 31, 2005 *	Jan 03, 2006 *	Feb 14, 2007 *
Apr 06, 2005 *	Jan 16, 2006 *	Jun 05, 2007 *
Apr 20, 2005 *	Jan 28, 2006 *	Jun 14, 2007 *
Apr 27, 2005 *	Jan 31, 2006 *	Jun 20, 2007 *
Sep 03, 2005 *	Feb 03, 2006 *	Jun 21, 2007 *
Sep 11, 2005 *	Feb 11, 2006 *	Jun 28, 2007 *
Sep 19, 2005 *	Feb 19, 2006 *	Jun 28, 2007 *
Sep 22, 2005 *	Feb 19, 2006 *	Jul 03, 2007 *
Sep 27, 2005 *	Feb 25, 2006 *	Jul 11, 2007 *
Sep 29, 2005 *	Mar 04, 2006 *	Jul 24, 2007 *
Sep 30, 2005 *	Mar 11, 2006 *	Aug 08, 2007 *
Oct 01, 2005 *	Mar 19, 2006 *	Aug 08, 2007 *
Oct 14, 2005 *	Mar 25, 2006 *	Sep 26, 2007 *
Oct 21, 2005 *	May 26, 2006 *	Oct 14, 2007 *
Oct 23, 2005 *	Jun 25, 2006 *	Nov 27, 2007 *
Oct 28, 2005 *	Jul 25, 2006 *	Dec 01, 2007 *
Oct 31, 2005 *	Aug 23, 2006 *	
Oct 31, 2005 *	Sep 19, 2006 *	
Nov 04, 2005 *	Oct 12, 2006 *	
Nov 13, 2005 *	Oct 19, 2006 *	
Nov 30, 2005 *	Nov 01, 2006 *	
Dec 15, 2005 *	Nov 21, 2006 *	
Dec 30, 2005 *		

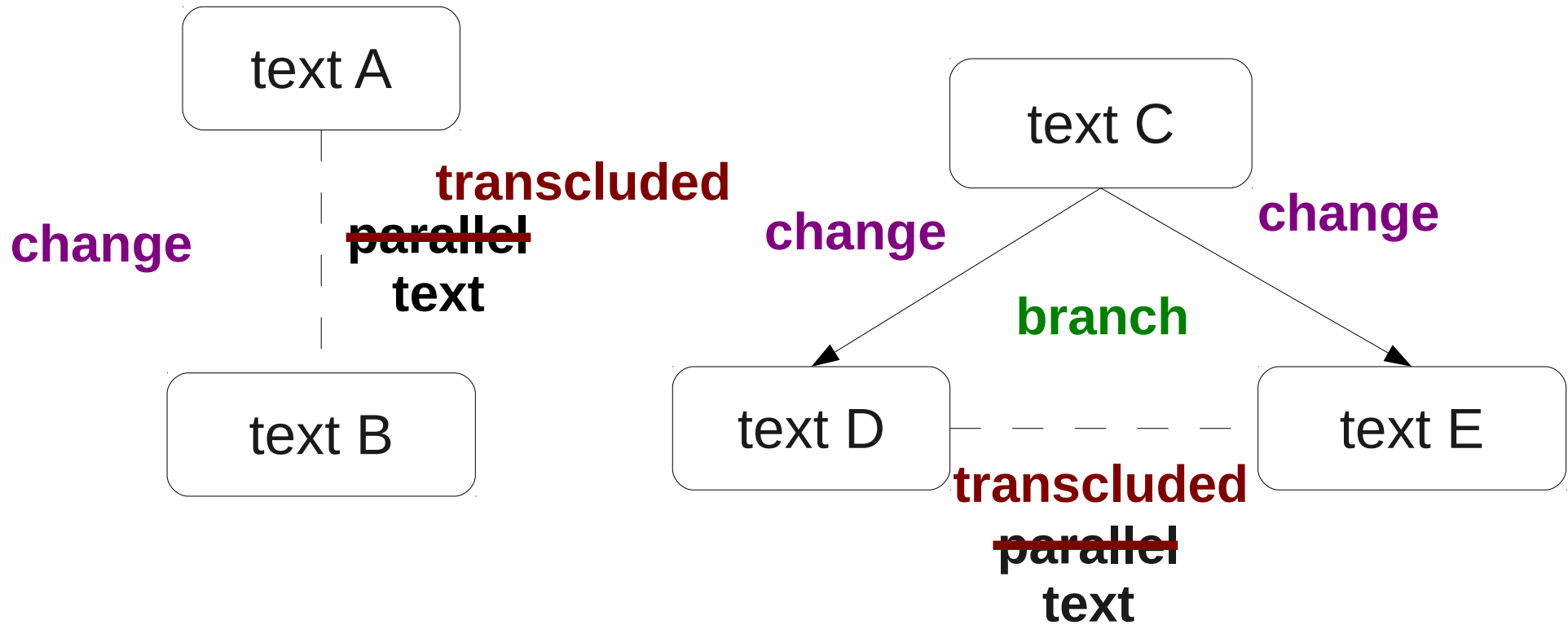
Wiki

Internet Archive

time



Types of ~~changes~~ links

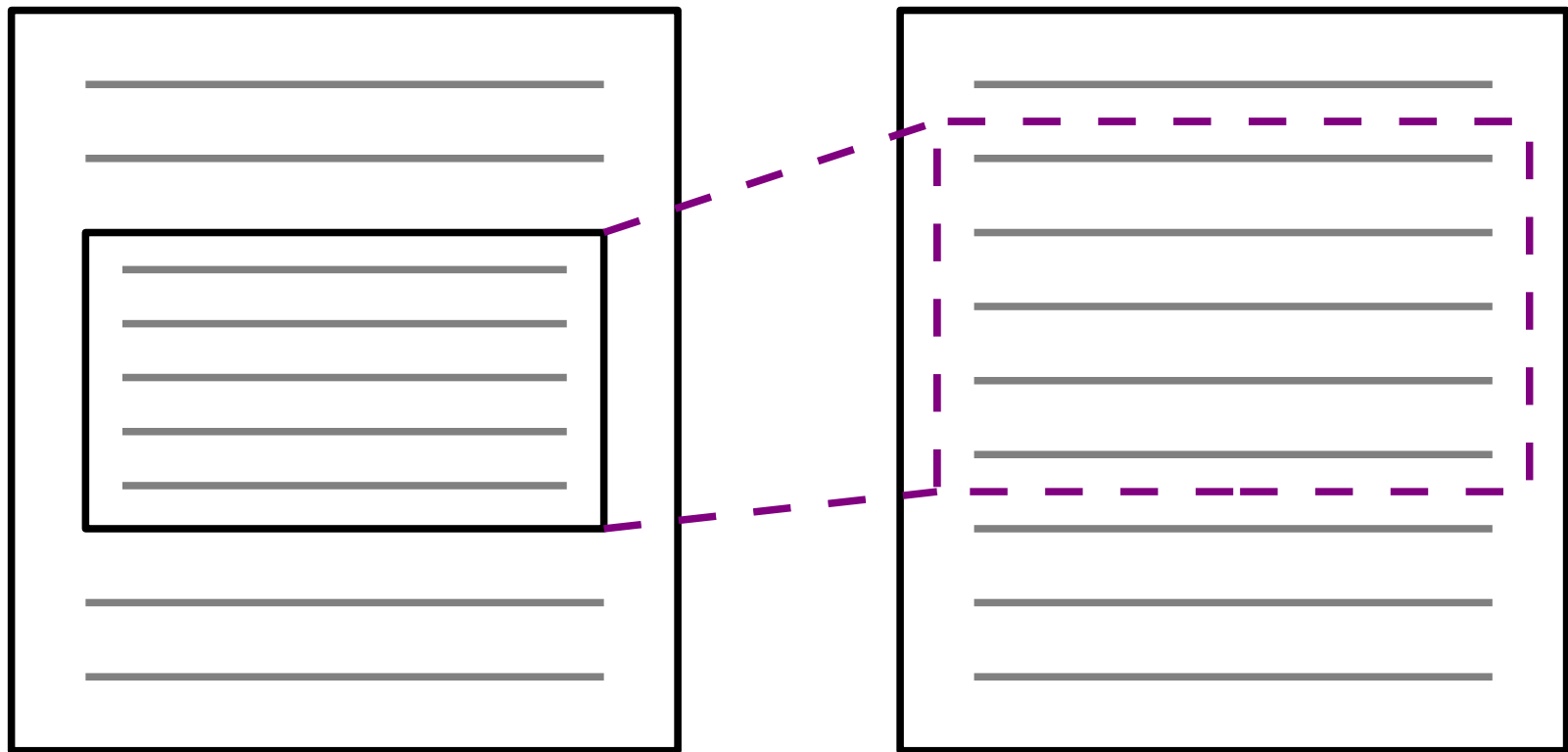


sequent versions


parallel branches

Deep links in Xanadu

An identifier for any portion/span of text (of whatever version) can be constructed.



Pathways from WWW to Xanadu

- Backlinks
 - Trackback/Pingback for notification
 - Dedicated link servers to publish and query links
- Versioning
 - Adding Time to the Web with Memento* 
- Branching and Merging
 - OAI-ORE and similar RDF based models
 - Distributed Version Control Systems

* <http://www.mementoweb.org/>

Distributed version control systems (DVCS)

Committed Changes		
Rev	Scores	Commit log n
9b43fe121f		Merge in t
b11b659298		Merge
2e610b4d9c		Sh
3b5d7ecd51		Ma
921d335549		Trim tl
1682c71ea3		Erratic
af55c85092		Added a F

- + Track changes, branches & merges
- + Already used also for books
- Current systems do not scale: you always to clone the full repository*



* See question <http://stackoverflow.com/questions/3098029>

We can do better
We can do Xanadu