

# Rebirth of the Daozang Jiyao – The never-ending Process of Creating a Digital Edition

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# Three phases in the life of a digital text

- ▶ creation / birth
- ▶ enhancement / education
- ▶ sharing / work

# Nothing 'new' here

- ▶ Digital texts are nothing "given"
- ▶ our imagination and vision brings them into existence
- ▶ they form according to our wishes

## The Daozang ...

- ▶ The most important Daoist textual collection is the Daozang (DZ)
- ▶ The DZ has a complex and long history, starting from compilations in ca 400 AD
- ▶ The oldest completely preserved edition was printed in 1445 (during the Zhengtong period, thus Zhentong Daozang)
- ▶ The DZ was compiled on imperial orders under the leadership of Daoist clerics
- ▶ it contains about 1500 texts with more ca. 5300 scrolls (26 Mio characters)

## ... and the Daozang jiyao

- ▶ A digest was created in the Qing period, initiated probably by Peng Dingqiu (1645-1719), but mainly compiled by Jiang Yupu (1755-1819)
- ▶ The DZJY was compiled by a group of lay people interested in Daoism
- ▶ A revised reprint was prepared in Sichuan in the early 20th century
- ▶ About 60% of the material is from DZ, 40% have been added newly
- ▶ The differences between the DZ and DZJY, the newly added material and the two main strata of surviving editions require careful study
- ▶ A project was conceived to support this study, generously supported by CCK and JSPS

## Aims of the DZJY project

- ▶ Establish and publish a new critical edition of the DZJY
  - ▶ including a digital one in many forms
- ▶ Compile a critical, comparative catalog of the DZJY
- ▶ Publish a *Companion to the Daozang jiyao* similar to the 3 Vols. *Historical Companion to the Daozang* by Schipper/Verellen
- ▶ The following will discuss the progress and methodology of the digital DZJY

# Transcription and facsimile

<p>一 炁生姓 炁生翼 翼生尸 尸生壽 比相生也</p> <p>一 芥冠羸 羸刺焱 焱冠壽 壽刺靈 靈冠炁 炁刺尸</p> <p>一 尸冠禹 禹冠芥 翼冠錠 錠冠班 班冠羸 羸冠艸</p> <p>一 艸冠困 困冠壽 壽冠姓 姓冠翼 此相克也</p> <p>一 輪範屬 先天之學</p> <p>一 芥姓 一道姓 魁芥者言地可以勝天而人更可勝地 蓋地近而天遠而人更近於天地也 他則對寫凶</p> <p>一 芥牛 陽道生 天生五行生星斗生金玉生龍馬生日月生男女</p> <p>一 芥姓 難分爲二 而生養萬物培植二氣則一也</p> <p>一 姓生陰道生地生山川生草木生金玉生飛禽生雲霧生走獸</p>	<p>道藏事類 三 二下七又</p> <p>炁生姓 性生翼 翼生尸 尸生壽 此相生也</p> <p>芥冠羸 羸刺焱 焱冠壽 壽刺靈 靈冠炁 炁刺尸</p> <p>尸冠禹 禹冠芥 翼冠錠 錠冠班 班冠羸 羸冠艸</p> <p>艸冠困 困冠壽 壽冠姓 姓冠翼 此相克也</p> <p>輪範屬 先天之學</p> <p>芥姓 一道姓 魁芥者言地可以勝天而人更可勝地 蓋地近而天遠而人更近於天地也 他則魁爲凶</p> <p>芥牛 陽道生 天生五行生星斗生金玉生龍馬生日月生男女</p> <p>芥姓 難分爲二 而生養萬物培植二氣則一也</p> <p>姓生陰道生地生山川生草木生金玉生飛禽生雲霧生走獸</p>
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Figure: Transcription and facsimile of a page in the DZJY

傳一言許肯更無難數篇奇怪文人手一夜挑燈讀不了曉來  
日早纔看畢不覺自醉如恍惚恍惚之中見有物狀如日輪明  
突岨自言便是丹砂精宜向鼎中烹凡質凡質本來不化真化  
真須得真中物不用鉛不用汞還丹須向鑪中種玄中之玄號  
眞鉛及至用鉛還不用或名龍或名虎或號嬰兒並姪女丹砂  
一粒名千般一中有一爲丹母火莫然水莫凍修之鍊之須珍  
重直待虎嘯折巔峯驪龍奪得玄珠弄龍吞玄寶忽昇飛飛龍  
被我捉來騎一翥上朝歸碧落碧落廣闊無東西無曉無夜無  
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日帝詩集

十四

室集六

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## Digitizing of Chinese text

- ▶ Modern character encodings for Chinese are developed with the modern understanding of characters
- ▶ This makes it very difficult to use for premodern text
- ▶ It is thus next to impossible to study changes in orthography and character usage in digital text
- ▶ A new model for digitizing Chinese text is needed

## Establish a new model for digital Chinese text

- ▶ Facsimile **or** Transcription -> Facsimile **and** Transcription
- ▶ Not character codes, but position of the characters in the text as primary reference
- ▶ Multiple representations can then be related positional

# Conceptual view of the model

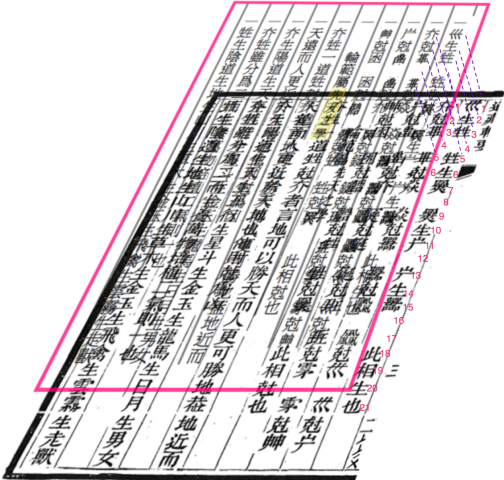


Figure: Layers of text stacked upon each other

# Establishing a workflow

- ▶ input according to the Chongkan edition
- ▶ scan of page images, image preparation
- ▶ upload into the editing environment
- ▶ proofreading and annotating
- ▶ workbench for analysis, annotation and translation

# The editing environment

道藏輯要 閱覽·編集

Current Page:  
Text: JY006 | [chris](#) [logout](#) [歷史](#)  
← Page: JY006\_02p007a →

Page Selector  
Text:   
Section:   
Page:   
Edition:

異体字 ■ 異版 ■ 備考 ■ 凱希

凱希版(=KX)

CK: <sup>003</sup>穢 x KX: 穢 x ->JYE  
CK: <sup>004</sup>泓 x KX: 泓 x ->JYE  
CK: <sup>005</sup>颯 x KX: 颯 x ->JYE

Search:

靈祿露誌

一 靈祿露誌

一 以楊枝存爲青龍攬水三轉向上作一圓光○以枝書一心  
字以淨吾心之炁又以枝向我腹點明合天帝日以淨五臟  
之穢又以枝向壇上點三點念泓澄湖化爲三天之境又從  
月厭方正月戌二月酉逆數之遇本月方宜動步灑淨

五星神咒

五星列照 煥明五方 水星卻災 木德致昌 熒惑消禍  
太白辟兵 鎮星四據 家國利亨 各刊王簡 字錄帝房  
乘颯扇景 飛騰太空 出入冥無 遊宴十方 五雲浮蓋  
招神攝風 役使萬靈 上衛仙翁

首歲更要 大洞玉經 氏集三

一 招神攝風 役使萬靈 上衛仙翁

一 五星神咒

一 五星列照 煥明五方 水星卻災 木德致昌 熒惑消禍

一 太白辟兵 鎮星四據 家國利亨 各刊王簡 字錄帝房

一 乘颯扇景 飛騰太空 出入冥無 遊宴十方 五雲浮蓋

Figure: A page from the DZJY Chongkan edition in the editing environment

.. in action

The image shows a vertical text layout on the left and a character editing window on the right. The vertical text includes the characters 霧露露露 (Kirisurururu) and a long vertical line of text: 以楊枝存爲青龍攪水三轉向上作一圓. The character editing window is titled '漢字編集' and shows a list of characters: 役, 飛, 鎮, 煥, 咒, 月, 厭, 方, 正, 月, 之, 穢, 又, 以, 枝, 字, 以, 淨, 吾, 心, 以, 楊, 枝, 存, 爲. The window also displays the file path 'JY006\_02p007a\_01', version 'CK-KZ', and a 'Cut' button over a large character image.

霧露露露

以楊枝存爲青龍攪水三轉向上作一圓

漢字編集

役 飛 鎮 煥 咒 月 厭 方 正 月 之 穢 又 以 枝 字 以 淨 吾 心 以 楊 枝 存 爲

JY006\_02p007a\_01 : 版本: CK-KZ 範囲: char

字形保存 文字情報 備考 字の加減

文字画像の編集

Cut

# Requirements for a scholarly digital edition

- ▶ establishing of a reliable text
- ▶ all major witnesses available as facsimile
- ▶ user has full control over the text
- ▶ annotation, commentary, translation
  - ▶ private, shared or public
  - ▶ the user retains control over his work
- ▶ Distributed version control systems to the rescue?

# Distributed version control systems (DVCS)

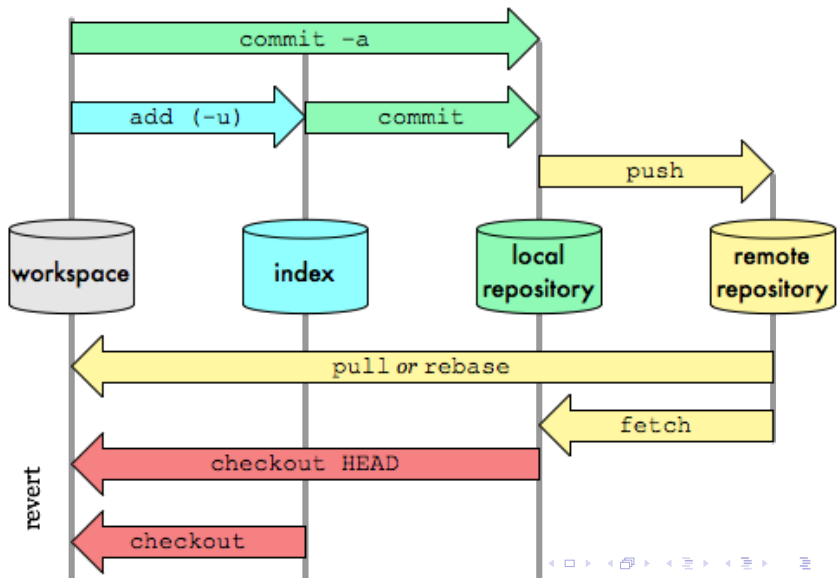
- ▶ DVCS evolved out of traditional (centralized) version control systems
- ▶ DVCS do not require a central server or central control
- ▶ users can freely create their own branches, but retain the connection to the master repository
- ▶ Quick and wide adaption in the open source community
- ▶ seems ideal suited for the research community
  - ▶ but there might be barriers to the entry



# Example of a DVCS based workflow

## Git Data Transport Commands

<http://osteele.com>



## Example(1): Zutang ji (Record of the Hall of Patriarchs)

<pb:ZTJ\_K45n1503\_1-101>¶

祖堂集卷第三¶

¶

牛頭和尚，嗣四祖。師諱法融，潤州延陵人也，姓¶  
文。四祖在雙峰山，告眾曰：「吾未至此山時，於武¶  
德七年秋，於廬山頂上東北而望，見此蘄州雙¶  
峰山頂上有紫雲如蓋，下有白氣，橫分六道。」四¶  
祖問五祖曰：「汝識此瑞不？」五祖曰：「莫是師腳下¶  
橫出一枝佛法不？」四祖曰：「汝會我意，汝善住矣，¶  
吾過江東。」便去。至牛頭山幽棲寺見數百僧並¶  
無道氣，乃顧問僧曰：「寺中有多少住持？其中有道¶  
人不？」僧曰：「禪和大相輕，夫出家者，阿那个不¶  
是道人？」四祖曰：「何者是道人？」僧無對，乃云：「山上有嬾¶  
融，身著一布裘，見僧不解合掌，此是異人也，¶  
禪師自往看。」四祖乃往庵前過來過去，謂曰：「善¶  
男子！莫入甚深三昧。」融乃開眼。四祖曰：「汝學為¶

## Example(2) ZTJ text with translation

```
<pb:ZTJ_K45n1503_1-101>¶
祖堂集卷第三¶      Zǔtáng jí Fascicle Three
¶
牛頭和尚，          Preceptor Niútóu
嗣四祖。            succeeded to the Fourth Patriarch;
師諱法融，          his canonical name as master was Fǎróng;
潤州延陵人也，      he was a man from Yánlíng in Rùn province
姓¶文。              and his family name was Wén.
四祖在雙峰山，告眾曰：      The Fourth Patriarch addressed the
U: ---ztj.org          11% (1591,0) Git:translation (
```

Figure: ZTJ text, reformatted and with translation (by C. Anderl)

# Conclusions

- ▶ A new way of handling for digital Chinese texts has been proposed
- ▶ Some changes to the way text is established
- ▶ A different model for publications of a text
- ▶ Empower the readers to share as much (or as little) of the traces of their reading with as many (or as few) others
- ▶ Work in progress, update to follow