**FINNEY — Digital NT**

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**Digital New Testament**

Finney, T., Clivaz, C., Schmidt, D. and Carlson, S.

This workshop proposes to have four presentations on the topic of ‘Digital New Testament’. Application of computer technology to the Bible and particularly the New Testament has a long and illustrious history. New Testament researchers continue to make substantial contributions to digital humanities. Examples include

• The pioneering work of Vinton Dearing (http://senate.universityofcalifornia.edu/inmemoriam/vintonadamsdearing.htm).

• The INTF’s Virtual Manuscript Room (http://ntvmr.uni-muenster.de/).

• The Codex Sinaiticus site (http://www.codexsinaiticus.org/en/).

The New Testament presents a unique challenge to digital humanists. The volume and scope of its primary documents test many approaches to essential tasks, such as transcription and collation of manuscripts (there are tens of thousands of them if translations are included), analysis of textual relationships (the number of texts and complex textual histories break conventional approaches to establishing an initial text), and establishing a critical text (again, complex textual histories frustrate the process; the volume of witnesses requires selection of a mere sample of textual representatives for hand editions).

Approaches to alleviating some of the manifold problems presented by the New Testament textual tradition will be presented at the proposed workshop:

• Phylogenetic analysis of textual variation in order to better understand relationships between witnesses (Stephen Carlson).

• ‘Towards an Open-Ended New Testament? Digital Materiality, Critical Editions, and categories of Ancient Christian Texts’ (Claire Clivaz).

• Computer simulation of textual transmission to better understand textual development and use of distance-based analysis methods to map the textual landscape (Tim Finney).

• Generally applicable collation algorithms to produce the fundamental information required for analysis of textual relationships (Desmond Schmidt).

**Relevance to the Digital Humanities Community**

The digital analysis techniques proposed to be presented at the workshop are directly applicable to textual criticism of other corpora (e.g., Homer). Digital techniques that work with the New Testament have already passed a severe test due to the diversity and volume of the material. The techniques are therefore unlikely to be (completely) derailed when applied to other corpora.

**Workshop Leaders**

*Stephen Carlson* **(**Stephen.Carlson@acu.edu.au**)—**Research interests include New Testament textual criticism, synoptic source criticism, editing the Fragments of Papias of Hierapolis, formation of the New Testament canon. Areas of expertise include textual criticism, scholarly editing, Koine Greek pragmatics, cladistic analysis, computer programming, including heuristic search techniques such as simulated annealing.

*Claire Clivaz* **(**claire.clivaz@unil.ch; https://unil.academia.edu/ClaireClivaz)**—**Assistant professor of New Testament and early Christian literature at the Faculty of Theology and Religious Studies of the University of Lausanne (2008–2014). She received a Ph.D. in theology from the University of Lausanne on the topic ‘L’ange et la sueur de sang (Lc 22,43–44) ou comment on pourrait bien encore écrire l’histoire’ at the University of Lausanne.

*Timothy J. Finney*(tjf@tfinney.net; http://tfinney.net)**—**Research interests include the text of the New Testament and statistical analysis of New Testament textual variation data. Areas of expertise include programming; big data approaches to digital corpora (e.g. http://founders.archives.gov/, of which he was lead programmer); computer-assisted transcription, collation, and analysis of the New Testament textual corpus.

*Desmond Schmidt* (desmond.allan.schmidt@gmail.com; http://ecdosis.net)—His research interests are in the building of general tools for creating and publishing digital scholarly editions. This includes tools for generating multi-version documents, which are an idealised form of works that exist in multiple versions.

**Description of Target Audience**

The target audience is people with an interest in digital resources applicable to collation and analysis of textual corpora with a view to producing critical editions.

**Expected Number of Participants**

About 30 participants is not unrealistic given the number of digital humanists interested in computer applications relevant to reconstruction of the history and text of various corpora.

**Special Requirements for Technical Support**

These items will be required:

• A projector with VGA and DVI connectors. (Some presenters will use programs run on their own computer using custom software.)

• A computer workstation that can be connected to the projector in case a presenter wants to load a presentation from a USB stick. Internet connection to the workstation is desirable.

• Wi-Fi access for presenters who want to access the Internet during their presentations.

**Intended Length and Format of the Workshop**

| **Time** | **Item** | **Presenter** | **Comments** |
| --- | --- | --- | --- |
| 9:00–9:45 | Phylogenetic analysis | Stephen Carlson | Overview of theories of NT textual criticism, including eclecticism and classical stemmatics, and the use of cladistics from computational biology to perform a phylogenetic analysis of the textual tradition of Galatians. This presentation will also discuss the problem of reticulation (textual mixture from more than one source) and some proposals to account for it. |
| 10:00–10:45 | Towards an open-ended New Testament? | Claire Clivaz | Digital materiality, critical editions and categories of ancient Christian texts. |
| 11:00–11:30 | MORNING TEA | — | Snacks and refreshments |
| 11:30–12:15 | Merging and Collation | Desmond Schmidt | Demonstration of tools for creating and displaying multi-version documents, including side by side comparison at the character level, ‘edition view’, with a tabulated apparatus, and a multi-version document editor. |
| 12:30–13:15 | Copying simulation | Tim Finney | Demonstration of a text copying simulation written in R (see http://www.tfinney.net/Simulation/index.xhtml). This will include use of distance-based analysis techniques such as classical multidimensional scaling, divisive clustering, partitioning around medoids, and neighbour-joining. |

The format of each component will be a 45-minute presentation using a computer workstation and projection system followed by 15 minutes for questions.

**Workshop Program Committee**

The four presenters are proposed as the program committee.