The Pixelated Text: Reading the Bible within Digital Culture[1]

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Abstract
This paper looks at Bible engagement in a digital age, focussing both on multimedia engagement with the Bible through the ages as well as the changes which new technologies bring to the reading process and asking some questions about our use of different technologies for different tasks. The paper opens up the new possibilities afforded to scholars through the digitisation of manuscripts and libraries, but also looks at the limitations of digital Bibles in their current forms. What new areas of research do the digital humanities open up for us?

Keywords:
Bible, biblical literacy, digital, digital humanities, media

A Mediated Bible

If we want to explore biblical literacy in contemporary culture, we need to make a shift away from thinking that biblical literacy is exclusively about people reading the Bible. This seems to be a particularly Protestant obsession, although close reading of the Bible is evident in the (material) culture of both the Jewish and Christian traditions. However, in his reflections on Bible engagement in medieval Europe, Queen Mary University academic, Dr Eyal Poleg talks of Bible mediation rather than biblical literacy.[2] He focuses not so much on reading the bible, but rather on the mediation of the Bible through liturgical processions, sermons and on the Bible as a talisman. He could have looked as well at songs, poetry, art, mystery plays and festivals. Medieval society was centred around the Bible as a sourcebook for the European imaginarium, forming the basis for civic administration, law codes, and cultural expression of all kinds. The wealth of the Church and its social standing within the aristocracy, of course, meant that this was not an open process of cultural influence but one of cultural domination, the product of the Church's hold on wealth and influence throughout Christian Europe.[3]

The Bible in Contemporary Society

Today, visuality is at the very centre of digital culture. Contemporary society has a love affair with all things visual: all manner of flashing screens; the vocabulary and syntax of the emoji; the ubiquity of video; the culture of the selfie. But we are not moving into a visual age - we never left the visual age. Humanity self-organises as a visual being. Thomas Mitchell defined visual culture as "the visual construction of

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[1] This text is based on the Thistleton Lecture, delivered at St John's School of Mission, Nottingham in the Summer 2017.
[2] Eyal Poleg, *Approaching the Bible in Medieval England*, Manchester University Press, 2013, p.2
[3] Poleg, *Approaching the Bible*, p.1

the social, not just the social construction of the visual".[4] In an information age, where pictures paint a billion pixels, whole libraries exist of websites, journal papers, monographs, and textbooks telling us how to maximise the impact of the visual to aid human perception, or how to manipulate the human mind, which tends to improvises what it 'sees' in any case.[5]

Digital (visual) culture can seem to provide us with all the power. We become the warders in Bentham's panopticon, surveilling all that we see and projecting power and domination over our visual empire. But visual culture turns the tables on us. Like Derrida embarrassed by his cat's apparent observation of his naked body in *L'animal que donc je suis*, we increasingly find ourselves the object of the image's gaze:[6]

> images look back at us…the eidolon talks back to us, gives orders, demands sacrifices…why vision is never a one way street…why the question to ask about images in not just what they mean, or what they do? But what is the secret of their vitality – and what do they want?[7]

It is an image that we find in the Bible itself. We not only read the Bible, it reads us. In James 1:23-4, the author points to the stupidity of those who "look in the mirror but, when they walk away, immediately forget what they look like" and then praises those "who look intently and persistently into ("stoop over") the perfect law". The student's gaze, their meditation upon the text (Psalm 119), their stooping over the text as mirror brings self-perception, enlightenment and practical benefit - an image not uncommon in the Christian tradition (Augustine, Aquinas, Erasmus, Wesley…). But it establishes an image of studious reading that could only have been accessible to a few people for most of Christian history. The Church, and perhaps especially reformed evangelical Protestant expressions of it, tend to down play the visuality of the Bible – words seem so much more important than a mediated/mediatized Bible. So, the research into contemporary biblical literacy can become a logocentric exercise in tracking who reads the Bible.[8]

Clive Field has magisterially demonstrated, in figures borne out in CODEC's own surveys and research, that biblical literacy (of the reading variety) is in decline in the UK, and probably in most of the Global North – although the latest Barna/ABS study suggests a halt in decline in the United States.[9] The evidence from such surveys is

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[4] W.J.T. Mitchell, "Showing seeing: a critique of visual culture", *Journal of Visual Culture*, 2002, Vol 1(2), p.166; David Morgan,

[5] The theological ramifications have been explored by many, for example in Stephen Pattison's 2007 Gifford Lectures, *Seeing Things: Deepening Relations with Visual Artefacts*, SCM Press, 2007; and in David Morgan, *The Sacred Gaze*, UCPress, 2005, *The Embodied Eye: Religious Visual Culture and the Social Life of Feeling,* UCPress, 2012; Colin Ware, *Information Visualization: Perception for Design*, Morgan Kaufman, 2012

[6] Jacques Derrida, *L'animal que donc je suis (The Animal that thus I am/I follow)*, Editions Galilée, 2006

[7] Mitchell, p.176; to be fair, Mitchell focuses on Lacan's classic concept of the cat's cradle encompassing the screen, but there are link to arguments in Derrida's *L'animal que donc je suis* where the observed cat seems to observe and critique the author's nakedness.

[8] I have explored this in more depth in Peter Phillips, *Engaging the Word: Biblical Literacy and Christian Discipleship*, BRF Publications, 2017

[9] Clive D. Field, "Is the Bible Becoming a Closed Book? British Opinion Poll Evidence", *Journal of*

that although people have Bibles on their bookshelves, they tend to be gathering dust. Although most people, perhaps for the first time in history, could read a Bible, they don't seem to have a huge desire to do so.

Katie Edward's work on culturally embedded biblical literacy argues that biblical literacy is not dead, at least not as a mediated text.[10] Films, songs, theatre, art, sculpture, even architecture and advertising carry echoes, afterlives of the Bible. We are reminded of Lady Gaga's constant twisting of biblical imagery, of David Bowie's "Lazarus", of Darren Aronofsky's Noah – a film he referred to as the most unbiblical biblical epic ever! Even playful rebellion against the Bible, in parody or vitriol, seen from the mystery plays to Monty Python and Eddie Izzard, somehow works to reinforce the power that the Bible has within our society. But as Christendom continues to crumble, perhaps even this culturally embedded, mediated Bible may dissipate, overtaken by different cultural texts.

Field notes not just the decline in Bible reading, but also the growth of increasingly negative attitudes towards the Bible, arguing that we are in the long tail decline of the influence of the bible in contemporary society, very much in the after-burn of the Reformation and of the Evangelical Revival. However, some recent surveys may suggest a shift in attitudes towards the Bible in terms of negativity if not indifference. In a recent CODEC survey among digital millennials, conducted by ComRes, when presented with a list of positive and negative words/phrases associated with the Bible, most of the respondents replied "don't know" – in line with our sense that there is a general indifference towards the Bible among digital millennials. But four of the top five other responses were positive,[11] in stark contrast to Field's findings, in which he points to a whole host of polls in which the Bible is seen as "difficult" (55%), "boring" (22%) and "insignificant", indeed "less important than a daily newspaper".[12]

Bibles under glass/on screen

Some argue that engaging with the Bible through glass/on screens is changing the way that we both engage with and absorb the text.[13] Digital engagement gives less context for our reading and readers cannot flip through the whole book and cross-reference different passages or make use of the kind of tactile and photographic reading strategies which book readers do subconsciously. Under glass, you can search for verses, books, people. You can change between books in a moment (or

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Contemporary Religion, 29:3 (2014), pp.503-528; American Bible Society/Barna Group, *The State of the Bible 2017*, published online: http://www.americanbible.org/state-of-the-bible (accessed 23 May, 2017).

[10] Katie Edwards, *Rethinking Biblical Literacy*, Bloomsbury, 2015

[11] A similar positivity is noted in the ABS/Barna survey, *State of the Bible 2017*; Grace Davie, "Religion in Public Life: Levelling the Ground", published by Theos 2017 and available at https://www.theosthinktank.co.uk/research/2017/10/28/religion-in-public-life-levelling-the-ground, accessed 8/2/18

[12] Field, "A closed book?", pp.516-517

[13] Jeffrey S. Siker, *Liquid Scripture: The Bible in a Digital World* Fortress Press, 2017 offers a good synthesis of views

two) and read it in the dark. You can listen to some translations and choose to follow the English language readings in church in any language you want! But is the engagement of the same quality? The argument seems to be that printed or chirographic literature leads to a deeper comprehension of the text, whilst digital Bible reading can often lead to a superficial skimming across the surface of the text When we read texts under glass/on screens, we use skills associated with information retrieval, skimming the text, hunting for clues to meaning, and for salient facts. We rarely pick up narrative threads, context, and adornment – the essence of aesthetic reading. We scan things under glass: we read things on paper.[14]

The questions arise in different forms of scholarship: biblical (Jeff Siker), digital (Naomi Baron), sociological (Nicholas Carr and Sherry Turkle).[15] Current neural patterning experiments tend to affirm that reading texts under glass stimulates different parts of the brain than when reading material texts. So, Naomi Baron's questioning of the fate of reading in a digital world needs to be taken seriously. Moreover, research about the impact of mobile devices and laptops on learning has led to some elite institutions raising concerns about screen-reading's impact on comprehension in and out of class.[16]

Of course, digital culture changes not just our reading patterns but also the way we think. Katherine Hayles' research demonstrates the human capacity to automate aspects of our lives in order to free up neural capacity for higher cognition – the use of muscle memory or subconscious programming of necessary actions like breathing and blood circulation. Taking this further, Cory Doctorow has explored how we use digital media as a form of outboard brain – outsourcing data to be retrieved at leisure later, freeing up much needed neural capacity.[17] But does such outsourcing limit our cognitive capacity to engage with such external memories on a subconscious level? Neurons are good but they cannot connect with hard drives yet. Do we still remember and engage with what we outsource? Is that information easily re-embedded within our own internal processing? If our Bible is outsourced, are we less biblical people? The answer may well be a shift back to and a re-embracing of the mediated nature of the Bible rather than to keep it under glass. Do we need to

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[14] Some of the science for these assertions can be found in two classic texts: Maryanne Wolf: *Proust and the Squid: The Story and Science of the Reading Brain*, Icon, 2008; Stanislas Dehaene, *Reading in the Brain: the New Science of How we Read*, Penguin, 2009

[15] Nicholas Carr, *The Shallows: How the internet is changing the way we think, read and remember*, Atlantic, 2011; Sherry Turkle, *Reclaiming Conversation*, Penguin 2016; Naomi Baron, *Words Onscreen: The Fate of Reading in a Digital World*, OUP 2015; the MIT research, *The Impact of Computer Usage on Academic Performance: Evidence from a Randomized Trial at the United States Military Academy* is available here: https://seii.mit.edu/research/study/the-impact-of-computer-usage-on-academic-performance-evidence-from-a-randomized-trial-at-the-united-states-military-academy/ (accessed 24 May, 2017)

[16] Susan Carter *et al.*, "The Impact of Computer Usage on Academic Performance: Evidence from a Randomized Trial at the United States Military Academy" available at https://seii.mit.edu/wp-content/uploads/2016/05/SEII-Discussion-Paper-2016.02-Payne-Carter-Greenberg-and-Walker-2.pdf, accessed 8.2.18

[17] Cory Doctorow, "My Blog, My Outboard Brain", blogpost 05/31/2002 archived at O'Reilly WebDevCenter: http://archive.oreilly.com/pub/a/javascript/2002/01/01/cory.html, accessed 8.2.2018; N. Katherine Hayles, *How we Think*, University of Chicago Press, 2012

explore more embedded, material, creative ways to engage in both Bible research and Bible study? Not just with material Bibles but with mediated Bibles? Is there not something more holistic in embracing a Bible explored through all our senses, a mediated Bible rather than simply printed or digitally rendered Bibles?[18]

The Bible within the Digital Humanities

Much of CODEC's research could be situated as much within the field of Digital Humanities as it is within Biblical Studies or within Theology. The mediated (or now pixelated) Bible has its place at the very heart of the Digital Humanities project. Throughout history, the Bible has been adapted again and again to the very latest technology: the codex, illustrated manuscripts, chirographic miniatures, Gutenberg's press or the now ubiquitous smartphone. It seems fitting therefore that today CODEC's research focuses on contemporary biblical literacy, the mediation of the Bible in digital culture, a world-first MA in Digital Theology, as well as engagement work with creative industries, parachurch agencies and denominational bodies. Just as fitting that there are panels exploring the Bible and Digital Humanities at the annual conferences of both the Society of Biblical Literature and the European Association of Biblical Studies and as CODEC's Director, I was invited to speak at the inaugural panel on Digital Theology at the Digital Humanities World Conference in Montreal in summer 2017.

But how might we study the Bible within the Digital Humanities?

Classically, digital humanities is classified in three waves:[19]

- Wave 1: Digitisation/Infrastructure
- Wave 2: Born-Digital Tools/Data Analysis/Distant-Close Reading
- Wave 3: Computational Analysis, Coding and Big Data, AI

These waves represent chronological developments but they also reflect the different emphases of different academic/practice centres. So, in our own ad hoc international Digital Theology research network, different institutions focus on different aspects of the Digital Humanities project. Claire Clivaz and Sarah Schulthess in Lausanne focus on the digitization, collation, and machine/human reading of polyglot manuscripts (wave 1); the Finnish group with Erkki Sutinen, Emmanuel Awabi and Ant Cooper at Turku focus on technological applications to generate and analyse data for research (wave 2); the Czech group at the Centre for Philosophy, Theology and Media Theory at Charles University in Prague focus on the 'theological turn' in European media theory around Bernard Stiegler and Bruno Latour (wave 1); CODEC focuses both on the history of digital methods and their application to

[18] Hans-Ruedi Weber, *Experiments with Bible Study,* World Council of Churches, 1983 calls for us to liberate the Bible from the uniform grey of privatized print and to embrace the Bible with both rational and creative faculties.

[19] See, for example, David Berry, *Understanding Digital Humanities*, Palgrave, 2012, chapter 1; Digital Humanities Manifesto 2.0 accessible at: http://www.humanitiesblast.com/manifesto/Manifesto_V2.pdf (accessed May 23, 2017)

theological research, but also on the practical implications of digitization and digitality – a form of context theology in which the context is all things digital (wave 2), as well as exploring aspects of computational analysis and its impact both on theological research, human identity and flourishing (wave 3)?

Wave 1: an example: digitized manuscripts

The Biblical Guild excels at Wave 1. Well-known, well-funded manuscript projects exist in many places, including those at the British Library, and the Universities of Birmingham and Münster, among many others. Digitization projects have been the mainstay of the digital humanities, offering accessible funding applications and pretty straightforward impact case studies. They focus on the fundamental principle of open access research – rather than have a few people study a precious manuscript, we create a digitised edition of that manuscript which can be seen by anyone with web access:[20]

> The Codex Sinaiticus Project is an international collaboration to reunite the entire manuscript in digital form and make it accessible to a global audience for the first time. Drawing on the expertise of leading scholars, conservators and curators, the Project gives everyone the opportunity to connect directly with this famous manuscript.

The website invites viewers to see the surviving text of the manuscript with transcription and, where possible, translation. The image can be magnified to give better access to diacritical marks on the page and even the lighting of the page can be changed. Of course, the digitization of the manuscripts has opened up that which was once privileged information. A new generation of researchers is given access to rare documents and the number of PhDs involving manuscript details rose in corresponding manner.

However, digital texts cannot be handled, manipulated, examined as physical artefacts. There are also questions about whether digital manuscripts are as permanent as facsimiles or even the originals. What happens when funding goes or when technology changes? Perhaps we already need to be looking at the local production of high-resolution facsimiles rather than centralized digital manuscripts?

Wave 2: an example: Bible Apps

Wave 2 moves from the digitization of manuscripts through to born digital tools, data analysis and automated data collection processes (distant reading). The three main Bible engagement programmes are good examples of this – Youversion offers app-based Bible engagement which also offers social media sharing and community Bible plans; BibleGateway offers a web-centred search engine with additional elements of devotional reading and Bible tools; Logos provides a more commercial license-based product which adds lots of supplementary modules to engage with the

[20] www.codexsinaiticus.org accessed 8.2.18

Bible in many different ways. There are, of course, many others. The research output of Tim Hutchings, Pauline Cheong, Heidi Campbell, Stephen Garner, and Jeff Siker, among others, has picked up the various issues relating to the interaction between the Bible/religion and the digital age.[21]

Let's focus on Youversion, with its 200m+ downloads. Those behind the app see the impact of the app as directly theological:

> God is near, and so is His Word. As you wake up. While you wait. When you meet a friend. Before you go to sleep. When the Bible is always with you, it becomes a part of your daily life.

The focus of their business model, as with the other Bible programmes, is to have a transformational impact on those who engage with their products. So, Youversion is keen to develop ways for users to engage with one another, to be encouraged to read more of the Bible, but also to engage actively in highlighting texts and sharing those texts within their social media circles. All of this activity seeks to share more widely the transformational impact.

But what kind of Bible ends up in the public domain? What bits of the Bible are being shared and does this shared Bible create a kind of digital canon?

CODEC has collated over a dozen lists of the most tweeted Bible verses across a number of years produced by Youversion and other digital Bible providers. The resulting grid shows a gradual shift over time from broadly propositional texts to broadly therapeutic texts increasing in use. That kind of shift has been noted previously by both theologians and sociologists: Lindbeck's concept of a shift from propositions to experience; Grace Davie's shift from formal theology to informal spirituality; and, of course, Linda Woodhead's concept of the spiritual turn.[22] In turn, a number of enthnographers of youth culture, have noted a shift among Digital Millennials towards a more therapeutic focus on life known in the States as moralistic therapeutic deism (MTD) [23] or in the UK/Australasia the happy midi-

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[21] Tim Hutchings, "Now the Bible is an App: Digital Media and Changing Patterns of Religious Authority" published in *Religion, Media and Social Change*, edited by Kennet Granholm, Marcus Moberg and Sofia Sjö, Routledge, 2014, p143-161; Pauline Cheong et al. (eds.), *Digital Religion, Social Media and Culture*, Peter Lang 2012; Heidi Campbell (ed.), *Digital Religion: Understanding Religious Practice in New Media Worlds*, Routledge, 2013; Heidi Campbell and Stephen Garner, *Networked Theology: Negotiating Faith in Digital Culture*, Baker Academic 2016; Jeff Siker, *Liquid Scripture*

[22] George Lindbeck, *The Church in a Postliberal Age,* SCM Press 2002, pp. 169-195; Grace Davie, *Religion in Modern Europe: A Memory Mutates*, Oxford University Press, 2000, pp. 176-194; Paul Heelas & Linda Woodhead, *The Spiritual Revolution: Why Religion is Giving Way to Spirituality*, Blackwell, 2005

[23] Christian Smith with Melinda Lundquist Denton, *Soul Searching: The Religious and Spiritual Lives of American Teenagers*, New York: Oxford University Press, 2006, pp.12-3

narrative (HmN).[24] Both construals argue that young people are attracted more towards a therapeutic approach to religion than to a propositional approach.

Our findings are that these sociological shifts are evidenced within social media sharing of Bible verses across the different lists. However, we also think that the effect is amplified by the (therapeutically inclined) ethos of social media itself – therapy is social media clickbait. So, the sociological shift matches the affordances of the media in which Youversion communicates to focus even more attention on the therapeutic aspect of the Bible.

So Wave 2 is about taking digital data, often derived from a digital application, and analyzing both data and technology. The mix between automatic collation of data, computerized collation, what we might call *distant reading*, is matched with human interpretation of data, making use of the skills of human research in doing the *close reading*, the exegesis, of information.

Wave 3: some hints for future research

Wave 3 reflects the more recent turn to computational analysis and coding. How do we develop new ways of engaging information in digitally native ways? This is a kind of experimental lab, the playground for tech enthusiasts and academics alike – preferably together. So, one of BibleGateway's key analysts, Stephen Smith, has his own website exploring the data which he draws from BibleGateway's users: http://openbible.info, especially the section which Smith calls "Labs".

Similarly, at Durham, we can create our own lab - making use of the university's links to IBM's Watson with its suite of AI-like applications that you wouldn't normally link to Biblical Studies. One of these tools performs sentiment analysis on texts. Stephen Smith did this for the whole Bible and produced a pleasing pictorial output. In turn, we explored a much smaller corpus, John's Gospel. In this experimental research, we realized how much the algorithms were trained for marketing purposes rather than Biblical hermeneutics. Proper research in this area would need further development of the technology before we could be certain of the results.

If we had time, we could dream about developing Frank Moretti's groundbreaking work on node and network analysis of Shakespearean dialogue. What would it mean to develop a similar network-node analysis for the Synoptics or for John or the Acts of the Apostles? I have a hunch that each Gospel would reflect a different set of relationships – but would we find the pattern of the inner circle of Peter, James and John, would we find Judas off to one side? What light would new tools shine upon the biblical text? Indeed, bloggers on 'Quid' have done some of their own visual mapping of the Bible… https://quid.com/feed/decoding-the-bible

Conclusion

[24] Smith, *Soul Searching*, p.168; Sylvia Collins-Mayo and Tom Beaudoin, "Religion, Pop Culture, and 'Virtual Faith'", in *Religion and Youth* ed. Sylvia Collins-Mayo and Pink Dandelion, Aldershot: Ashgate, 2010, p.17

This paper has ranged far and wide from biblical literacy to reading under glass to codex technology to digital humanities. The pixelated text, the kind of digital version of Poleg's mediated Bible has been updated and uploaded. In new forms online the Bible is being encountered by new generations who are sharing what they find with the world in which they live. In their sharing, it is possible that a new canon is being presented through social media.

We've seen that there are those who are giving warning cries about the developments we are all experiencing. But do we need to heed them? Socrates said that writing would be the end of serious thinking. And at every step of innovation, the doomsayers have warned us that technology comes at a price.

Digital culture is extending us, giving us new skills, opening new avenues of research. At the end of his paper on "Questions on Technology", Heidegger suggests that one of the potential benefits of technology is the proliferation of creativity.[25] I'm pretty sure that humanity is more than capable at messing the whole thing up, but for me, the hope of advance, the embrace of creativity, the blossoming of new research are all well worth the risk!

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[25] Martin Heidegger's "The Question Concerning Technology" in The Question Concerning Technology and Other Essays (trans. William Lovitt), Garland, 1977, pp. 3-35. pp.33-4;