
Film and Moving Image Studies: Re-Born Digital? Some Participant Observations

By Catherine Grant

[A Thumbnail Sketch](#) from [Catherine Grant](#) on [Vimeo](#).

[C]inematic and electronic screens differently demand and shape our 'presence' to the world and our representation in it. Each differently and objectively alters our subjectivity while each invites our complicity in formulating space, time, and bodily investment as significant personal and social experience. [Vivian Sobchack, 2000] ([1](#))

The time is now ripe to join the insights of decades of film and media studies with the new modes of information management, visualization, and dissemination that digital technologies are enabling. Who better to reimagine the relationship of scholarly form to content than those who have devoted their careers to studying narrative structure, representation and meaning, or the aesthetics of visuality? [Tara McPherson, 2009] ([2](#))

Vast numbers of feature-films and other cinematographic productions [now] exist as digital footage [...]. [R]ecording and editing devices [...] are available for everyone. When it comes to working with this treasure, the pertinent questions are analogous or even identical to those [that people who make films or videos about films] are confronted with: Which elements of an existing movie can I work with? What can be used, what am I allowed to use? What is a citation, what is a copy, what is a transmission? What is—in the broadest sense—legally or even morally interesting or possible, what is aesthetically interesting or possible in the working-with or the deictical gestures (the showing)? And who should watch all this? To be more specific: What is the difference between digital footage found on the net and the tangible footage collected in movie archives or found in the dustbin of history? What is algorithmic and what is intellectual indexicalization? [Stefan Pethke et al, 2009] ([3](#))

[[The Virtual Window Interactive](#)] suggests that the digital format is not at its best in building a complex argument; it works by accretion, by juxtaposition, by comparative assemblage. It is rhizomatic. [Anne Friedberg, 2009] ([4](#))

While the coincidence between the cinema's centenary and the arrival of digital technology created an opposition between the old and the new, the convergence of the two media translated their literal chronological relationship into a more complex dialectic [which] produces innovative ways of thinking about the complex temporality of cinema and its significance for the present moment in history. As the flow of cinema is displaced by the process of delay [achieved at the press of a button in electronic viewing] spectatorship is affected, re-configured and transformed so that old films can be seen with new eyes and digital technology, rather than killing the cinema, brings it new life and new directions. [Laura Mulvey, 2011] (5)

Film and moving image scholars have clearly been thinking for some time about the advantages and disadvantages for our subjects of the [affordances](#) of digital technology. Their views on this matter, like those cited above, have always been rather mixed. In her most recently published work, (6) leading writer on media theory N. Katherine Hayles applies to contemporary digital media her understanding of *technogenesis*—the idea that the human species has co-evolved with its tools and technologies. She argues that, in recent decades, as a result of the [computational turn](#) in human culture, 'our brains have increasingly been rewired around a hyper-attentive framework', (7) one 'characterized by switching focus rapidly between different tasks, preferring multiple information streams, seeking a high level of stimulation, and having a low tolerance for boredom'. (8) It's the kind of mind-set almost certainly responsible for the aesthetic approach of the above-embedded video accompaniment to this introduction. (9)

Hayles [doubts](#) '[w]hether the synaptic reconfigurations associated with hyper attention are better or worse than those associated with deep attention' or, indeed, whether such a question can be answered at all in the abstract. (10) Yet one of the most important elements of her argument is its implied reminder that continued human cognitive 'progress' is not only far from inevitable, but that it is a profoundly exceptionable concept to begin with. Evolution, with technological tools or without them, is [commonly](#) understood to lead only to the 'survival' of those most suited to their contingent circumstances. As Hayles argues, while a 'case can be made that hyper attention is more adaptive than deep attention for many situations in contemporary developed societies', (11) this cognitive framework is unlikely always to lead to the production of, say, the deepest, most meaningful or, indeed, most critical academic, or pedagogic, work that human civilization has ever known. So, as ever, when we use tools, technologies and methodologies, digital or otherwise, in our critical and creative practices—as researchers, as teachers, as film

and video makers— it is important that we understand as fully as possible (not only biologically and perceptually, but critically, politically and ethically, too) what is at stake in using them—what we might gain, and what we might lose (12) —all the while knowing that, in so many ways, we really aren't free to choose our cognitive circumstances, or, indeed, our adaptations to these.

I turn my own hyper attention, now, to my chosen subject (13) as honoured guest editor of this inaugural issue of the online journal [Frames](#) . (14) In this capacity, I invited 39 fellow film and moving image scholars (including established and emergent film scientists, archivists, publishers, and film and video makers), (15) all of them digital-participant-observers of one kind or another, to contribute their responses in a variety of forms (16) to a semi-rhetorical question: 'have film and moving image studies been "re-born" digital?' (17) In other words, what can we do now that we couldn't before—and what can we no longer do as well—as a result of our increasing take up of particular digital scholarly technologies? Is a language of 're-vitalization' an appropriate one to describe digital developments in our subjects? (18)

Despite the reference to (re-)birthing, my desire to pose this question at this point was not prompted by a belief that the applications of digital technologies to film studies should be considered especially new-born, even as some of them may still be novel. Indeed, my scholarly generation and its adjacent ones are composed of very well adapted [digital immigrants](#), by and large. (19) The entirety of my own academic career to date, for example, has been very happily lived out in an era of bits and bytes. During the academic year 1990-1991, I submitted the doctoral thesis that I had nicely composed and printed out on my first suite of personal computer equipment, purchased two years earlier. This was also the year in which I took up my first proper lecturing post at a university in which email was just about to become, very rapidly, the main form of intra-and inter-collegiate communication. Perhaps less typically, I even co-wrote my first academic website in .html back in 1996, (20) inspired by the pioneering online work of scholars like [Daniel Chandler](#) and [Sarah Zupko](#), and curious, as I still am, about the possibilities that they were exploring of hyperlinking to further scholarly resources. (21) The below 'timeline' (22) —which, somewhat partially, plots digital film studies developments as I remember them from my perspective as a (mostly) English-language focused scholar following them avidly—shows just how 'long-established' some of the applications I am talking about actually are.

English Language Digital Film Studies Resources

- The rapid growth of the World Wide Web from **1991** onwards, affording hosting and dissemination spaces for:
 - Online Film Indices and Databases: in **1990** Col Needham founds the Internet Movie Database as a USENET newsgroup; **mid 1990s** the online Film Index International formed from BFI's offline Summary of Film and Television database
 - Online moving image archives, video sharing and VOD: Internet Archive Moving Image Collection, **1999**; CinemaNow, MovieFlix (both U.S.) and Cinero (Korea) offer VOD or movie download services, **1999**; video sharing sites Vimeo, **2004**; and YouTube, **2005** start up; academic multimedia sharing site Critical Commons receives generous funding, **2008**
 - 'Hypertextual' film and cultural theory education: e.g. Daniel Chandler, 'Notes on the Gaze', **1995**; 'An Introduction to Genre Theory', **1997**. Also see the work of Sarah Zupko, e.g. PopCultures.com, **1996**
 - Online Academic Listservs, then Salons, then Journals: *Film-Philosophy*, **1996**; *Screening the Past*, **1997**; *Scope: An Online Journal of Film and Media Studies*, **1999**; *JumpCut* online, **2001**; *Vectors*, **2005**
 - Influential online film studies and film criticism curators and informal salon hosts including, from the **1990s**, Fred Camper, Glen W. Norton, and from the **2000s**, for example, Steve Erickson & Girish Shambu
 - More 'formal' film studies related blogging, such as Bordwell and Thompson, **2006**; The Bioscope, **2007**; Film Studies For Free, **2008**
- Advent of computer-based, 'prosumer', non-linear video editing systems, **early 1990s**
- CD-ROMS e.g. **1992-1999**: Virtual Screening Room, a CD-Rom digital textbook. Produced by Henry Jenkins, Janet Murray, Ben Singer and Ellen Draper
- Growth of Digital Home Video Formats (and their 'Extras!') like the LaserDisc (**1978-2001**), replaced by the much more popular DVD format, **1997**
- Data Mining and Metrics: Cinemetrics software created by Gunars Civjans, used by Yuri Tsivian for his work on *Intolerance*, **2003/5**; the term "cultural analytics" was coined by Lev Manovich, **2007**

Figure 1 (23) A slide from my presentation 'Film and Moving Image Studies: Re-Born Digital?' University of Sussex, February 24, 2012 (24)

Just as digital technology is hardly a recent addition to film scholarly culture, the present collection of essays is certainly not the first substantial volume of work to ask important methodological questions of our studies as they have been performed digitally. USC scholars Tara McPherson and Steve Anderson, two genuine innovators in this field, are co-founders and co-editors of, among other online and digital initiatives, [Vectors: Journal of Culture and Technology in a Dynamic Vernacular](#), launched in 2005. (25) The first journal to overcome the principal obstacle to media scholarship that combines text, images, sound, and film (that there was almost nowhere to publish it), *Vectors* [focused](#) its investigations 'at the intersection of technology and culture', and not only in relation to its thematics. As Anderson and McPherson write,

Rather, [the journal] is realized in multimedia, melding form and content [...]. *Vectors* features submissions and specially-commissioned works comprised of moving- and still-images; voice, music, and sound; computational and interactive structures; social software; and much more. *Vectors* doesn't seek to replace text;

instead, we encourage a fusion of old and new media in order to foster ways of knowing and seeing that expand the rigid text-based paradigms of traditional scholarship. Simply put, we publish only works that *need*, for whatever reason, to exist in multimedia. In so doing, we aim to explore the immersive and experiential dimensions of emerging scholarly vernaculars across media platforms. (26)

Vectors' experiments in multimedia and multimodal digital praxis were only possible, at least prior to the popularity of video sharing sites like [YouTube](#) in the mid 2000s, or to the founding in the late 2000s (also by Steve Anderson) of [Critical Commons](#), an excellent media studies video archive, because McPherson and Anderson took the political and practical decision to work with web designers and programmers in order to create and host their own technological and scholarly infrastructure. They also applied for, and deservedly received, substantial grant funding to do this. It is perhaps because of the significant costs, and on-going commitment and expertise necessary for such endeavours, that the *Vectors* model has not been taken up more widely by many of the other experiments in scholarly film and moving image publishing, either before or since. (27)

In 2009, though, McPherson put some of *Vectors'* forms and methods on the mainstream Film and Media Studies map (28) when she edited a [dossier](#) on 'Digital Scholarship and Pedagogy' for the U.S. Society of Cinema and Media Studies' periodical *Cinema Journal*. (29) In her introduction, presenting articles by seven fellow scholars at the cutting edge of these practices, (30) McPherson took the pulse of their shared multimodal methods:

[Their] multiperspectival quality (as well as the new visualization processes that can render it meaningful) also has possibility for scholarly knowledge production. [...T]he role of computation in the humanities is about much more than building robust archives that scholars then write about in traditional ways (as rich as that work can be); it is also about navigating new pathways through scholarly materials that can transform the questions scholarship might ask.

Beyond the database, emerging and existing computing technologies allow us to imagine very different scholarly "outputs" at the surface of the screen—we might create powerful simulations, visualize space and time in compelling ways, or structure data that the user can then play like a video game, richly annotate on the fly, or capture and represent in interesting

new ways. Exploring database thinking and creating new genres of argument produce new relationships for scholars: to our objects of study, our methodologies, and our potential collaborators. They also reconfigure our understandings of technology's role in the humanities (and vice versa), and, often, to broader publics in and outside of the academy. (31)

Around three years on, this issue of *Frames* has set out to revisit, with the undoubted benefit of much greater 'digital era' hindsight, many of the affordances that McPherson can, in part, only imagine in this passage, as well as elsewhere in her introduction. Indeed, looking back at it now, the *Cinema Journal* dossier feels as much a work of important *speculation* as of reflection. In the intervening years, a great deal more digital film studies work has actually been produced, or is in the process of being developed, so this present edited collection has the luxury of being able to focus even more on our medium (and disciplinary) specificities than the earlier volume was able to. (32) Furthermore, as *Frames* exists purely as an online journal it can afford to devote much more space to this discussion, and is able to offer its readers an openly accessible as well as timely critical engagement with the topics discussed in the issue (all the contributors have submitted their essays during the last five months). Perhaps most importantly, however—like *Vectors*, but not (yet) *Cinema Journal* (33)—*Frames* can both explore and represent *in media res* the particular methodologies of the audiovisual film and moving image studies that are increasingly appearing online. Around half of its contents addresses those matters.

This strong focus on videographic studies will come as no surprise to anyone remotely familiar with my own work in recent years. I have been researching the development of online and digital film scholarly and pedagogic forms in a systematic way since 2008 when I launched my blog [Film Studies For Free](#). Three years ago, I began to [make](#), as well as seriously to [curate](#), film studies videos, very much inspired by the kinds of work appearing around that time in online cinephilic and film critical culture. (34) My deep attachment to this form is not only due to its highly compelling qualities as a scholarly object, one that can easily be published and disseminated in innovative ways, but also because of its great potential as a research tool and process. Non-linear video editing programmes provide an excellent adaptable platform for audiovisual *exploration* of digitised film material, of highly beneficial forms of instrumental, as well as usefully non-instrumental, forms of looking and listening, as I argue in my own [video contributions](#) to the P.O.V. section of this issue.

The scholars and critics whose videos, or written essays about this form,

are published here are working in, at times, similar but also strikingly different ways to one another. Fortunately, so far, the forms of these critical artefacts have not become fixed yet: we can still very productively argue about them, as [Adrian Martin](#) and [Janet Bergstrom](#) do brilliantly in their respective contributions to the issue, and as [Cristina Álvarez López](#) also does her in her highly compelling reconsideration of her own video essay on films by Krzysztof Kieślowski and David Lynch, *Double Lives, Second Chances*.

In a reminder that we are not only dealing with elite, small circulation forms when we examine online scholarly moving image culture, contributions by two essayists, whose videos deservedly went ‘viral’, are published in this issue: those by Matthias Stork ([Chaos Cinema](#)) and [Erlend Lavik](#) ([Style in The Wire](#)). Both of them consider the video essay form from different angles in two essays each for *Frames*: Stork’s [shorter contribution](#) also includes a new video on Sergio Leone’s cinematic style. Two further videos appear online for the first time in this issue: one by the most prominent, prolific and inventive online video essayist in the world, filmmaker and critic [Kevin B. Lee](#). Lee uses the work of Harun Farocki to explore the graphical user interfaces of old and new audiovisual essayism, including his own practices in this form. Meanwhile film and digital media scholar-practitioner Richard Misek offers us his new work ‘[Mapping Rohmer](#)’, part of an exciting new trend in online ‘cartographic film studies’. (35)

Three separate discussions of different forms of film and media studies teaching practice using video essays are included (with very useful examples) by [Christian Keathley](#), who has made some excellent [video essays](#) himself, by [Kelli Marshall](#), and by Janet Bergstrom and Matthias Stork in their usefully detailed [dialogue](#) (their discussion also took in Bergstrom’s own very ‘high end’ video essay practice for prestigious DVD collections, alongside her other digital work). On the related form of the remix, film scholar (and [curator-blogger](#)) [Katherine Groo](#) explores (and hails) the scholarly possibilities of this form with reference to Aitor Gametxo’s [video dissection](#) of D.W. Griffith’s 1912 *The Sunbeam* in her important contribution to film historiographical debates, which opens the issue. To exemplify the work of scholars across a broad range of contexts we also publish two further remixes, both (different) kinds of research films based, in part, on French cinema: ‘[Snakes and Funerals](#)’, the digital video element of an offline installation by Emily Jeremiah, James S. Williams and Gillian Wylde, part of the [Queer, the Space](#) research project—also a beautifully askew meditation on Jean-Luc Godard’s 1963 film *Le Mépris*; and Joanna Callaghan’s associative digital video sketching in her philosophical ‘[MASHING UP Derrida and Film](#)’ experiment, part of the [Ontological Narratives](#) (Arts and Humanities Research Council funded) project led by Callaghan in collaboration with Professor Martin

All of the above mentioned video projects inevitably raise important, indeed *pressing*, questions of [fair use](#) or [fair dealing](#) for non-commercial, scholarly and critical purposes and contexts. While it was not possible, within the timescale of the production of this issue, to obtain research or views on these matters beyond the U.S.A., two brilliant and highly original contributions to the issue—by Steve Anderson, on [‘Fair Use and Media Studies in the Digital Age’](#), and by Jaimie Baron, on [‘The Image as Direct Quotation: Identity, Transformation, and the Case for Fair Use’](#)—employ knowledge and understanding of the U.S. legal situation, with regard to audio, visual and audiovisual scholarly quotation, in order to raise many philosophical, ethical and political issues of international relevance.

Not all online videos of interest to film scholars take the critical, historical, theoretical, or phenomenological forms of the essays above. So *Frames* also wanted to flag up the important work in evidence on the Internet in relation to new documentary forms and technologies. Contributions follow as a result by world leading academic writers and practitioners in this field: Patricia Aufderheide gives an important overview of the hugely exciting developments in [‘Open Video Documentary’](#), Michael Chanan discusses his highly impactful video blogging practice in [‘Video Rising / Remarks on video, activism and the web’](#), and Alexandra Juhasz, author of the first [open video book](#) published by a university press on film and media studies, waxes multimodal about her highly original online work in [‘You Get the Picture’](#). (36)

Another substantial area of interest in assembling the work for this collection is, unsurprisingly, the broad field of online film and moving image studies publishing. Leading film theorist and historian, prolific on- and offline author, and accomplished [video essayist](#) Kristin Thompson headlines the P.O.V. section with her reflections [‘Not in Print: Two Film Scholars on the Internet’](#). Renowned [blogger](#) and now co-editor, with Adrian Martin, of the new online film journal [LOLA](#), Girish Shambu elegantly raises the pleasures of cinephile micro-publishing and digital ‘sharing’ in his short essay [‘A Universe of New Images’](#). There are further reflections on different scholarly modes of blogging by Glen W. Norton who looks back at his truly pioneering and inspiring online work at [‘Cinema=Godard=Cinema’](#), by Nick Redfern on his [online Film Studies research](#), and by *Frames’* editor Fredrik Gustafsson on [‘Blogging and Tweeting in an Age of Austerity’](#). Andrew Myers also brilliantly dissects the issues involved in innovative, open access and multimedia journal publishing as he weighs up his experience as current Editor-in-Chief at [Mediascape](#) in [‘Click Here To Print This Video Essay.’](#)

In a witty and detailed discussion of her ‘Proto-Scholastic Musing’ practice at her widely read blog [Celebrity Gossip, Academic Style](#), [Anne Helen Petersen](#) flags up issues which connect very well with ones raised by the highly distinguished film scholar Pam Cook in her research article for the issue, [‘Labours of Love: In Praise of Fan Websites’](#). Both these participant observers draw attention to the remarkable resources that have grown up online in the informal collections of fan websites.

Informal archives or assemblages, such as the ones Cook is discussing, join with formal archives and databases to form one of the other main digital film studies points of focus for this issue of *Frames*. In her article [‘Sparking Ideas, Making Connections: Digital Film Archives and Collaborative Scholarship’](#), Sarah Atkinson presents her fascinating research on [SP-ARK](#), an interactive online project based on the multimedia archive of filmmaker Sally Potter. Having previously shared online her remarkable research into [special and digital effects](#), internationally renowned film scholar Barbara Flueckiger presents her new database research for *Frames* in her piece [‘Analysis of Film Colors in a Digital Humanities Perspective’](#). Meanwhile [Dominic Leppla](#) compellingly discusses his work for the important translation and archive project [The Permanent Seminar on Histories of Film Theories](#); and St Andrews Film Studies scholar Tom Rice valuably sets out his experience of [‘Opening the Colonial Film Archive’](#). Two further, recently established, online film archives of interest to visit, and to compare with the above projects, include the [Media History Digital Library](#) (37) and the [The Turconi Project](#). (38)

A number of the archives, open video projects, and databases covered in numerous contributions to this issue of *Frames*, are already experimenting with forms of [crowd sourcing](#), [tagging](#) and [machine readability](#), along with other digital affordances. These seem almost certain to begin to challenge, not only in purely formal ways, some of the long-held tenets of film and moving image studies as much as, or possibly even more than, earlier challenges in, and to, film theory have done. (39) This brings us on to the emergent field of cultural analytics and digital metrics. Three further research articles focus on these matters (and Atkinson’s above-mentioned [article](#) explores them in detail, too). [Joshua McVeigh-Schultz](#) discusses the critical film-tagging project he is working on (alongside that veritable digital-film-studies lynchpin, Steve Anderson): ‘Movie Tagger Alpha’. A team of computer scientists—represented here by Matthias Zeppelzauer, Dalibor Mitrović and Christian Breiteneder, all working with the Austrian Film Museum to analyse film material from the [Dziga Vertov collection](#)—present their work in [‘Archive Film Material - A Novel Challenge for Automated Film Analysis’](#). Daniel Chávez Heras analyses two important digital film studies endeavours (the [Cinematics](#) project, and the [DIEM Project](#)) from a

constructively critical standpoint in his research work on [‘The Malleable Computer: Software and the Study of the Moving Image’](#). In [‘Thirteen Notes: A Poetics of Cinematic Randomization’](#), influential academic writer and critic Nicholas Rombes succinctly explores the marvellous practice he [invented](#) of randomly selecting (or having a computer programme randomly select) a certain number of images or frames from a digitized film as the basis of interpretation and inquiry.

Finally, in the two last (but not least) of the contributions to the P.O.V. section of *Frames*, screenwriter and academic Andrew Gay creatively and compellingly applies [web 2.0 principles to the teaching of the digital screenplay](#), and [Adelheid Heftberger](#), one of the highly esteemed collaborators from the Austrian Film Museum in the Dziga Vertov project (with [Zeppelzauer et al](#)), asks [‘...not what your web can do for you - ask what you can do for your web!’](#), as she speculates engagingly, and significantly, about Film Studies in the age of the Digital Humanities.

I intend it to be obvious, from the variety of the above contents, that one of the guiding principles in the composition of the present collection of work was, as far as possible, a commitment to theoretical and methodological pluralism, and genuine interdisciplinarity. (40) So the methods and assumptions of natural science and information science rub digital shoulders with those of creative critical practice and interpretative work. My belief is that film and moving image studies publications ought to be capacious and confident enough to create conversations between discourses and methods that are often kept apart politically and intellectually. (41) Indeed, in this issue, I want to represent what I see as a very healthy spectrum— along which all this work may be located—between the explanatory and poetic modes, as [Christian Keathley](#) has very suggestively argued of the film critical video essay form. This doesn’t mean that there aren’t real tensions at either end of the spectrum, between those who only seek to explain and those who only wish to perform their critical insights poetically. But, in the space of this collection, I choose strategically not to foreclose on what may be, and what are, very productive points of contact.

One such point may be the interest in almost all of this work on *visualization*, on the new forms of ‘visibilities’ and ‘luminosities’—as [Daniel Chávez Heras](#) puts it in his contribution—that are afforded by digital technology. When I gaze upon the images created through the data science of cultural-analytics art projects like [Brendan Dawes’](#) work (**Figure 2**, below), I can’t help but be reminded of the earlier visual analytics of much twentieth-century art and avant-garde culture. I’m even inspired, using my computer’s proprietary software, to create my own *imperfect cubisms* (42) to pore over (**Figure 3**, below). These may, of course, incorporate interpolated frames in their amateur capture

processes (unlike earlier pre-digital generations of illustrative frame stills). But, because of this, they are capable of raising interesting, and philosophical, questions about [digital quotation](#). And because I can produce them, they can become an even more integral part of my research processes, rather than if I simply commission their production.

Cinematic (Re-)Visualisation: Neo-Cubism?

"Brendan Dawes' **Cinema Redux** (2004) creates a single visual distillation of an entire movie; each row represents one minute of film time, comprised of 60 frames, each taken at one second intervals. The result is a unique fingerprint of an entire movie, born from taking many moments spread across time and bringing all of them together in one single moment to create something new. [On the right, a tiny image of Dawes' *Vertigo* exhibit]"

[<http://www.brendandawes.com/project/cinema-redux/>]

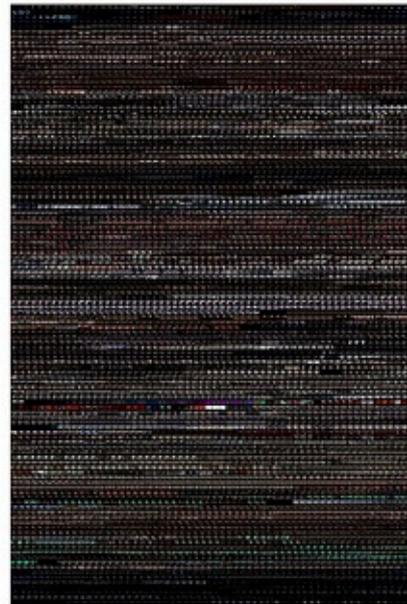


Figure 2. A slide from my presentation 'Film and Moving Image Studies: Re-Born Digital?' University of Sussex, February 24, 2012 ([43](#))

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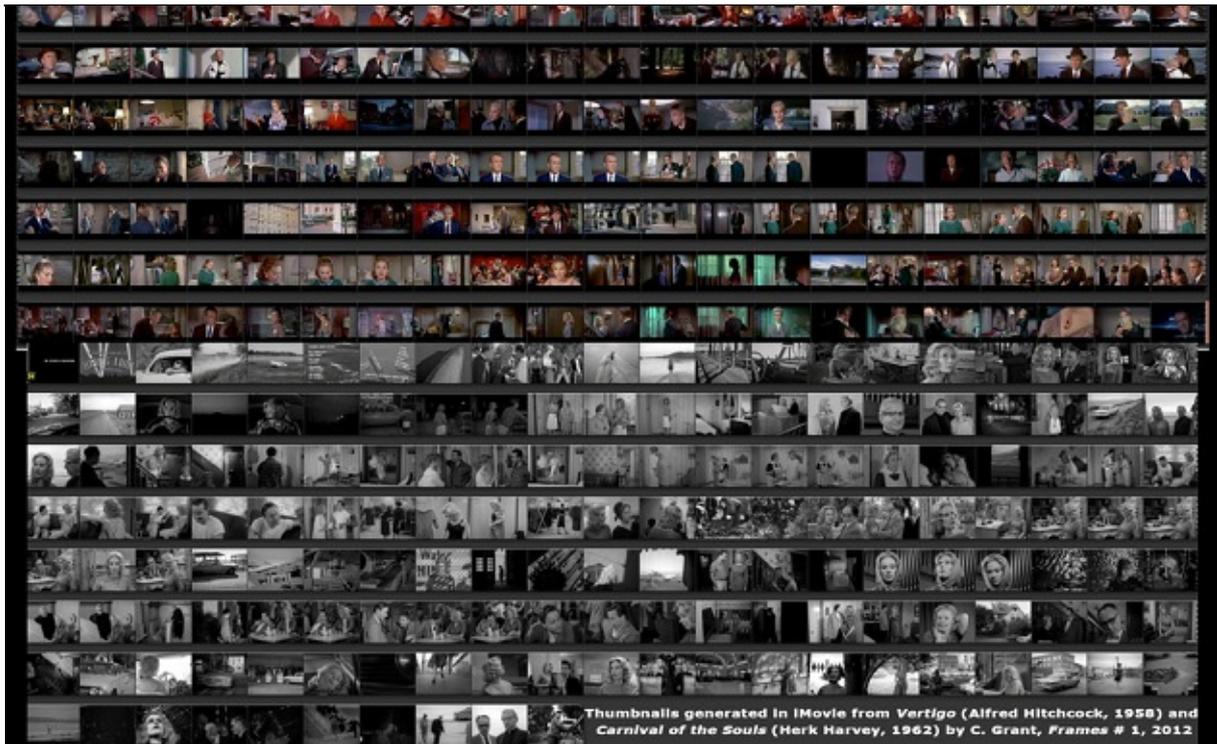


Figure 3. D.I.Y. cultural analytics

One of the prominent online practitioners of his own version of [Cinematics](#), Frederick Broderick, describes some of his work as ‘an experiment to find out if the data that is inherent in the movie can be used to make something visible that otherwise would remain unnoticed.’ (44) Surely this compulsion is a not so distant digital relative of Walter Benjamin’s ‘unconscious optics’: the idea that the invisible *is* present inside the visible, and can be revealed to us using new forms of technology—as achieved by the movie camera, in Benjamin’s lifetime:

Evidently, a different nature opens itself to the camera than opens to the naked eye — if only because an unconsciously penetrated space is substituted for a space consciously explored by man. Even if one has general knowledge of the way people walk, one knows nothing of a person’s posture during the fractional second of a stride... Here the camera intervenes with the resources of its lowerings and liftings, its interruptions and isolations, its extensions and accelerations, its enlargements and reductions. (45)

I began my essay by suggesting that digital tools and the new methodologies to which they give birth do make important (sometimes unforeseen, often unwilled) perceptual, indeed *phenomenological* differences in the ways we experience our familiar scholarly objects,

whether these differences turn out to be ‘good’ or ‘bad’ for us. As Steve Anderson puts it,

Once you start thinking in terms of tagging movies in real time, you don’t ever really go back. My mental model for movie watching for the past year has been the construction of metadata schemes and cognitive databases for all media that I take in. (46)

The debates about the changes that digital technologies are making are clearly taking place against the backdrop of an ever more heightened anxiety (since the centenary of cinema’s actual birth, in Mulvey’s view) (47) about the death of cinema itself. (48) In the middle of all the murders, or manslaughters, that the digital is bringing about, the discussions in this issue mostly focus on useful talk of births and marriages, even if some of the latter turn out to be ones of convenience. As I survey this work, and glance out at the digital horizons that lie beyond it, I find very encouraging evidence of the vitality of film and moving image studies, newly energised by their convergent connections with other old and new media studies, with science, and with avant-garde and cinephilic artefacts and communities. Online and digitally, as Mark Betz writes in his excellent study of an older, earlier stage in our disciplines, ‘the repressed film culture that gave rise to film studies has returned with a vengeance.’ (49)

Acknowledgments

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Warm thanks, also, to all the contributors—at once experts in and participant observers of the digital forms and methods under investigation—for so generously sharing their valuable research and points of view.

Thanks a lot for their patience and support during the editing of this collection to my colleagues at Sussex, and my friends (in particular, JSW). Finally, I’d like to express my deep gratitude, as always, to my partner and the rest of our family for all they do to enable my work, not least to CP on this occasion, for her much-appreciated Photoshop expertise and very kind assistance.

Endnotes:

(1) Vivian Sobchack, 'The Scene of the Screen: Envisioning Cinematic and Electronic "Presence"', *Electronic Media and Technoculture*, ed. John Thornton Caldwell (New Brunswick, N.J.: Rutgers University Press, 2000): 138.

(2) Tara McPherson, 'Introduction: Media Studies and the Digital Humanities', *Cinema Journal*, 48.2, Winter 2009: 120.

(3) Stefan Pethke, Michael Baute, Volker Pantenburg, Stefanie Schlüter and Erik Stein, 'Films About Films and the Internet': Programme Description of "The Art of Mediation" Session on Internet 'Films about Films and the Internet', cited by Kevin B. Lee, Shooting Down Pictures, April 16, 2009 <http://alsolikelife.com/shooting/2009/04/shooting-down-pictures-is-berlin-bound/>.

(4) Anne Friedberg, 'The Digital Scholar', *Cinema Journal*, 48.2, Winter 2009: 153.

(5) Laura Mulvey, 'Passing Time: Reflections on the Old and the New', in *Critical Cinema: Beyond the Theory of Practice*, ed. Clive Meyer (New York: Wallflower Press, 2011): 80. Also see Mulvey, *Death 24x a Second* (London: Reaktion, 2006) regarding the move, enabled by digital technology, from Mulvey's notion of 'possessive spectatorship' ('fetishistically absorbed by the image of the human body' *Death 24x a Second*: 11) to Bellour's 'pensive spectatorship' ('engaged in reflection on the visibility of time in the cinema'), Mulvey, *ibid.*

(6) This work has just been published in book form: N. Katherine Hayles, *How We Think: Digital Media and Contemporary Technogenesis* (Chicago: University of Chicago Press, 2012).

(7) Scott Rodgers, 'Hayles: technogenesis, distributed cognition and hyperattention', *PubliclySited*, March 8, 2010 <http://www.publiclysited.com/hayles-technogenesis-distributed-cognition-and-hyperattention/>.

(8) N. Katherine Hayles, 'My article on hyper and deep attention', *Media Theory for the 21st Century*, January 17, 2008 <http://media08.wordpress.com/2008/01/17/my-article-on-hyper-and-deep-attention/>.

(9) Also see Matthias Stork's [video essays](#) on *Chaos Cinema* which are embedded and discussed in this issue of *Frames*, and which take up issues of 'intensified continuity' in relation to contemporary action

cinema. Also see David Bordwell, 'Intensified Continuity Revisited', *Observations on Film Art*, May 27, 2007
<http://www.davidbordwell.net/blog/2007/05/27/intensified-continuity-revisited/>.

(10) Hayles, 'My article on hyper and deep attention'.

(11) Hayles, 'My article on hyper and deep attention'.

(12) Anne Friedberg argues this throughout her contribution to the *Cinema Journal* dossier on Media Studies and the Digital Humanities: 'The Digital Scholar', *Cinema Journal*, 48.2, Winter 2009.

(13) Much of my discussion in this introduction to the *Frames* issue was rehearsed in a number of invited lectures I gave on digital film studies between 2010 and 2012, including at the University of Nottingham on September 14, 2010, the University of St. Andrews on March 23, 2011, the University of Warwick on November 16, 2011, the British Film Institute on November 21, 2011, and the University of Sussex on February 24, 2012. The slides for the most recent event may be accessed below. Thanks to audiences at all these talks for their generative questions and feedback.

['Re-Born Digital? Film and Moving Image Studies' by Catherine Grant](#)

[scribd id=82943520 key=key-qjkckdbtlrctjk22bdm mode=list]

(14) Set up and run by resourceful Film Studies graduate students out of the University of St. Andrews, the third oldest university in the English-speaking world.

(15) I actually invited around 100 scholars from all around the world to participate, including from continents which turn out not to be represented at all in the completed collection. I hope to rectify this unfortunate dearth in future examinations of digital film studies - but, in the meantime, some indications of important multinational and regional work can be found at [Film Studies For Free](#) using geographical search tags.

(16) From the peer-reviewed, performative and/or theoretical written and audiovisual work in the opening **Feature Articles** section through to the multifarious, sometimes more personal, texts and videos in the **P.O.V.** section.

(17) The focus in this issue is predominantly on Film Studies, but there are also important discussions of television and video.

(18) Thanks to [Aristea Fotopoulou](#) for making me think through the languages of ‘vitality’ often attached to ‘Born Digital’ discussions.

(19) Rather than utterly [digital natives](#). See Marc Prensky, ‘Digital Natives, Digital Immigrants’, *From On the Horizon* (MCB University Press, Vol. 9 No. 5, October 2001. Online at: <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives%20Digital%20Immigrants%20-%20Part1.pdf>.

(20) Long offline now, it was a website for the postgraduate programme in Women’s Studies (including feminist film and media studies) at the University of Strathclyde, co-created with Magdalene Ang-Lygate.

(21) I now run a website that continues to be inspired by their work: [Film Studies For Free](#). Below, you can read Charalambos Charalambous’s 2010 study of this site, which contains excerpts from an interview that he conducted with me about it.

[WEB 2. Charalambous. Film Studies for Free](#)

(22) See the full set of lecture slides, from which **Figure 1** was excerpted, embedded above in footnote 13.

(23) The information about the Video On Demand and movie download sites CinemaNow, Cinero and MovieFlix was taken from Stuart Cunningham and Jon Silver, ‘Appendix 1: Timeline – On-line Distribution of Feature Films’ in eds. Dina Iordanova and Stuart Cunningham, *Digital Disruption: Cinema Moves On-line* (St Andrews: St Andrews Film Studies, 2012): 189.

(24) See endnote 13 for further slides.

(25) *Vectors* is mentioned in the **Figure 1** timeline. McPherson founded it with Steve Anderson one of the [contributors](#) to this issue of *Frames*, and also the Principal Investigator on the Movie Tagger project discussed in this issue by [Joshua McVeigh-Schultz](#).

(26) ‘About *Vectors*’, *Vectors: Journal of Culture and Technology in a Dynamic Vernacular*: <http://www.vectorsjournal.org/journal/index.php?page=Introduction>.

(27) There are some promising and prominent initiatives on the horizon, however. See Dan Cohen, ‘Introducing *PressForward*’, Dan Cohen, June 22, 2011: <http://www.dancohen.org/2011/06/22/introducing-pressforward/>.

(28) In the meantime, they had already been taken up to some degree by innovative, U.S. based graduate film and media studies journals such as [Mediascape](#) (from 2005), [Flow](#) (from 2004; relaunched in 2007 when it became more multimedia-rich), [In Media Res](#) (from 2006), and [Antenna](#) (from 2009).

(29) 'In Focus: Digital Scholarship and Pedagogy', *Cinema Journal*, 48:2, 2009: 119-160. See McPherson's '[Introduction](#): Media Studies and the Digital Humanities': 119-123.

(30) By Sharon Daniel, Kathleen Fitzpatrick, Anne Friedberg, John Hartley, Alexandra Juhasz, Christopher Lucas and Avi Santo. See Juhasz's [contribution](#) to this issue of *Frames*.

(31) McPherson, 'Introduction': 121-122.

(32) Note how much of McPherson's introduction was framed as a discussion of the Digital Humanities more broadly.

(33) The 2012 SCMS conference in Boston brought the announcement that the appointment of Will Brooker as the new *Cinema Journal* editor from next year will herald a raft of collaborations with existing U.S. based online and open access websites, including a number of those listed above in endnote 28. For further information, see the video uploaded here: <http://www.youtube.com/watch?v=rct64zZDyyU>.

(34) See Catherine Grant, 'Video Essays: A Multiprotagonist Manifesto', *Film Studies For Free*, July 11, 2009 <http://filmstudiesforfree.blogspot.co.uk/2009/07/video-essays-on-films-multiprotagonist.html>. See also Scott Balcerzak and Jason Sperb (eds), *Cinephilia in the Age of Digital Reproduction: Film, Pleasure and Digital Culture Vol. 1* (London and New York: Wallflower Press, 2009) for an excellent study of online cinephile culture in general. By far the best (and, to date, only offline) discussion of film critical video essays is Christian Keathley's 'La Caméra-Stylo: Notes on Video Criticism and Cinephilia', in Alex Clayton and Andrew Klevan, (eds), *The Language and Style of Film Criticism* (London: Routledge, 2011). I have an essay in the next issue of [Mediascape](#) (Spring/Summer, 2012) entitled 'Déjà-Viewing? Videographic Experiments in Intertextual Film Studies'.

(35) See, for instance, the remarkable work of University College London film scholar Roland-François Lack at his website *The Cinetourist* <http://www.thecinetourist.net/>.

(36) See also Jason Mittell's innovative, open scholarly book-in-progress, [Complex TV: The Poetics of Contemporary Storytelling](#), pre-publication

edition (MediaCommons Press, 2012)

<http://mediacommons.futureofthebook.org/mcpres/complextelevision/>.

(37) The [Media History Digital Library](#) is a 'non-profit initiative dedicated to digitizing collections of classic media periodicals that belong in the public domain for full public access.'

(38) See Luke McKernan's detailed discussion of the Turconi database, 'The Turconi project', *The Bioscope*, October 17, 2011

<http://thebioscope.net/2011/10/17/the-turconi-project/>.

(39) None of the following studies raised in any sustained way issues of technology, even as they spoke of, or bespoke, a 'post-theoretical' methodological crisis at the heart of Film Studies at, or after, the time of the centenary of cinema: Deborah Knight, 'Reconsidering Film Theory and Method', *New Literary History* 24, no. 2 (1993): 321-38; David Bordwell and Noël Carroll (eds), *Post-Theory: Reconstructing Film Studies* (Madison, Wisconsin: University of Wisconsin Press, 1996); Christine Gledhill and Linda Williams (eds), *Reinventing Film Studies* (London: Arnold, 2000); Lee Grieveson and Haydee Wasson (eds), *Inventing Film Studies* (Durham and London: Duke University Press, 2008).

(40) This kind of pluralism is very much the guiding principle in my curatorial work at [Film Studies For Free](#), too.

(41) I refer here to the occasional 'jockeying for position' in film and moving image studies, between, say, approaches descended from 'continental theories' and Anglo-American philosophical approaches, or between cognitive film studies and semiotic film studies.

(42) As a fellow Latin Americanist, I particularly like [Michael Chanan's](#) conclusions, in his essay for this issue, about 'imperfect cinema'. This seems to me an entirely apposite notion to connect with that of an 'imperfect Digital Humanities', that is to say, amateur and lo-fi digital manifestations which choose to break with the commodification of corporate-funded technological research and commercial academic publishing, enabling mere 'spectators' to become 'agents'. Michael Chanan, 'Video Rising: Remarks on Video, Activism and the Web', *Frames* # 1, 2012, <http://framescinemajournal.com/videorisingremarks>.

(43) See endnote 13 for further slides.

(44) Frederic Brodbeck, 2011 bachelor graduation project at the Royal Academy of Arts (KABK), Den Haag

<http://cinemetrics.fredericbrodbeck.de/>. Also see Valentina de Filippo on

The Shining <http://www.valentinadefilippo.co.uk/portfolio/the-shining/>.

(45) Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction", in *Illuminations* (New York: Schocken, 1969): 236-237. Bill Nichols touches on 'unconscious optics' indirectly in his 2000 chapter, 'The Work of Culture in the Age of Cybernetic Systems': it is very important Benjaminian reading for today's digital film scholar. In Caldwell (ed.), *Electronic Media and Technoculture*, op. cit.: 90-114. Thanks to Caroline Bassett for alerting me to this work.

(46) Cited by Joshua McVeigh-Schultz, 'Movie Tagger Alpha: Critical Tagging in Emerging Methods of Media Scholarship', *Frames # 1*, 2012 <http://framescinemajournal.com/movietaggeralpha>.

(47) Laura Mulvey, 'Passing Time: Reflections on the Old and the New', op. cit.

(48) See David Bordwell's highly compelling discussion of these matters in *Pandora's Digital Box* (Madison: self-published ebook, 2012) <http://www.davidbordwell.net/books/pandora.php>.

(49) Mark Betz, 'Little Books', in Lee Grieveson and Haydee Wasson (eds), *Inventing Film Studies* (Durham and London: Duke University Press, 2008), 319-341.

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