Hybrid Publishing: Between Print and Electronics, Art and Research

Florian Cramer, reader, Willem de Kooning Academy

(Abstract)

"Research" and "publishing", while always having been related, are currently undergoing change. Not only their practices are being rethought, but also their very definitions. A number of cultural and technological developments inform these changes: Digitization and electronic media technology have disrupted publishing and transformed the (digital) humanities. Cultural globalization puts the Western canon into question, including nationally specific divides between arts and scholarship.

These changes also affects the traditional textbook form of academic knowledge. Both "research" and "publishing" have become fields of investigation themselves.

At Willem de Kooning Academy (WdKA), a cross-departmental Hybrid Publishing lab for art and design research publications has been established in 2015, and an international Master program Experimental Publishing in 2016 at WdKA's Piet Zwart Institute. The aim is to create new, experimental forms of publications in several media simultaneously, combining them with experimental forms of art and design research and eventually extending them to the Rotterdam Arts and Science Lab.

Hybridity of art and research

WdKA's research into new forms of publishing in the (post-) digital age began in 2009 with a self-organized conference print / pixel. It brought together artists, designers, software engineers, small and large book and newspaper publishers and researchers from the Netherlands, Belgium, Germany, Italy and the United States to discuss the impact of digital publishing (including e-books and new forms of digital print) on their future work. Alessandro Ludovico, editor and publisher of the Italian new media arts magazine Neural, joined WdKA's research program (lectoraat) as a fellow. The question for everyone was: What will be the future of editorial design and publishing media given our shared yet seemingly

paradoxical observation that (a) the digital revolution of publishing is real, while (b) print and paper will not go away?

This ultimately resulted in Ludovico's book *Post-Digital Print*¹ which our research program published in collaboration with the contemporary art space and book publisher Onomatopee in 2012. (Shortly after, it appeared in a second edition, in French, Italian and Korean translations and has its own Wikipedia article.²) Ludovico argued that the death of print through electronic media had been predicted since the late 19th century, but never happened. In the final chapters, he therefore described "post-digital" editorial art and design projects that combined digital and print, overcoming their seeming opposition.

The issue of new technologies and their impact on publishing, art and design was not new. In a manifesto published in Kurt Schwitters' artist periodical *MERZ* in 1923, the Russian constructivist artist and designer El Lissitzky sketched, in eight bullet points, a program for the "new book". Among others, this book should be designed as a "book-space" that gives "reality to a new optics". But instead of just giving a new look to existing content, the "new book demands a new author". Lissitzky's manifesto concludes with the demand that the "printed sheet [...] must be transcended: THE ELECTRO-LIBRARY".

While the "electro-library" remained a purely speculative vision, Lissitzky's book designs from that time anticipate many principles of what today is called *new media*. In the same year as the manifesto, he designed Vladimir Mayakovsky's poetry volume For the Voice as a book in which the poems are typeset as visual poetry that blurs the lines between typesetting and abstract painting. Moreover, each individual poem is represented through a pictogram on an index pane on the right side of the book (whose pages are cut open like those of an address book). This effectively turns the print book into a database with an icon-based graphical user interface; an interaction design whose invention is conventionally credited to Xerox in the 1970s and that was popularized by Apple with the Macintosh user interface in the 1980s.

Still in 1923, Lissitzky met Piet Zwart, who taught at the forerunner of today's Willem de Kooning Academy next to his work as a commercial designer. (Zwart became controversial at the school for his demand to shut down "the fine art painting program" in favor of "synthetic and visual drawing, advertising, modern reproduction technologies, typography, photography and its visual possibilities, film, and the use of colour in architecture and in the urban space". This lead to the school ending his contract in 1930.) Lissitzky's, Schwitters' and Zwart's graphic designs were prominently featured in Jan Tschichold's 1928 book *The New Typography*. Similar in format and style to the *Bauhausbücher* (Bauhaus

¹(Ludovico).

²('Post-Digital Print').

³(Lissitzky), 359.

⁴Ìbid.

⁵(Zwart).

⁶(Tschichold).

books) including Laszlo Moholy-Nagy's *Painting, Photography, Film* from 1925, Tschichold's book became the canonical textbook of 20th century modernist type and graphic design.

In their new form and content, the Bauhausbücher marked a high point of artistic research publications in the early 20th century. The Danish Cobra painter and Situationist Asger Jorn coined the term "artistic research" in his 1957 Notes on the Formation of an Imaginist Bauhaus when he wrote: "Artistic research is identical to 'human science,' which for us means 'concerned' [i.e. engaged] science, not purely historical science. This research should be carried out by artists with the assistance of scientists". Jorn's own experimental-artistic research publications include "psychogeographic" atlantes of Copenhagen and Paris created in collaboration with Guy Debord. Their city cartographies are radically subjective instead of scientific, containing collages of torn-apart maps, paint drops and glued-in materials found in the streets. (These psychogeographies later influenced Rem Koolhaas' architectural urbanism and the "context mapping" method in service design.)

Moholy-Nagy's books were a major influence on Marshall McLuhan's and the formation of his media theory in the early 1960s. McLuhan remains one of the few humanities scholars who engaged in artistic research and experimental publishing as part of his scholarly work: First, with Counterblast, a riff on Wyndham Lewis 1915 Vorticist BLAST magazine produced in two versions in 1954 and 1969,8 secondly with The Medium is the Massage, his collaboration with the graphic designer Quentin Fiore from 1967, in which a typing error ("massage" instead of "message") in the editorial process ended up becoming the title. 9 Other historical examples of academic publishing that transgresses the boundaries of scholarship, visual art and design include Jacques Derrida's experimentally written, non-linear, multi-column philosophical essay Glas (1974) and the book Diagrammatic Writing (2013) by Johanna Drucker who is both an accomplished contemporary artist making artists' books and a humanities scholar; ¹⁰ to a lesser extent also The Telephone Book (1989) by media theoretician Avital Ronell, which was created in cooperation with the graphic designer Richard Eckersley, and the collaboration of scholar N. Katherine Hayles and graphic designer Anne Burdick on the book Writing Machines (2002).¹¹

Scholarship has conversely migrated into audiovisual media in order to be more accessible and reach wider audiences, an approach practiced in British cultural studies and American postcolonial studies, among others in John Berger's BBC television program Ways of Seeing (1972) and Henry Louis Gates' African American Lives (2006). The recent explosion of racist and conspiracy theorymongering pseudo-science, and the stardom of such (not only politically, but

⁷(Jorn).

^{8 (}McLuhan and Gordon), (Parker and McLuhan).

⁹(McLuhan and Fiore).

¹⁰(Derrida), (Drucker).

¹¹(Ronell), (Hayles and Burdick).

more importantly scholarly) dubious academics as Jordan Peterson, on YouTube and other social media indicates an urgent need for researchers to become more visible in these media.

Yet on closer inspection, and with the single exception of Drucker's Diagrammatic Writing, the aforementioned books rather qualify as 'creative scholarship' than 'artistic research' in Jorn's sense: The hierarchy and the respective roles of writer/scholar and visual designer/artist are not really removed, but just softened through intensified collaboration. In the take-up of 1920s avant-garde concepts into experimental forms of humanities publishing after the Second World War, Lissitzky's vision of the "electro-library" was initially not taken up at all. Instead, it continued - likely without any awareness of Lissitzky and initially without involving artists and visual designers - in information science and computer engineering, such as in the 1940s "Memex" architecture of interlinked microfilm documents by American presidential advisor Vannevar Bush which influenced Theodor Holm Nelson's 1963 concept of electronic "hypertext". ¹² In recent years. extensive "electro-libraries" in Lissitzky's spirit have been realized in non-profit projects like the Internet Archive (archive.org) and the artist-run UbuWeb, Aaaaarg and Monoskop (the latter being founded and maintained by Piet Zwart Institute graduate Dušan Barok). 13 They are vast repositories of digitized and freely downloadable modern and contemporary art and philosophy books and audiovisual media - and serve as the unofficial research libraries of art schools and non-traditional academia around the globe.

In the same spirit, Michaela Lakova, Lucia Dossin, Yoana Buzova, Roelof Roscam Abbing, André Castro, Lídia Pereira, Ana Luísa Moura, Max Dovey and Lasse van den Bosch Christensen developed - during their Masters studies at Piet Zwart Institute in 2014 - the inexpensive, cigarette box-size e-book pirate exchange server 'Bibliotecha' which can be brought anywhere, plugged into an electricity outlet and serve a library of down- and uploadable electronic books via its own wireless network, without an Internet connection. ¹⁴

Hybridity of print and electronic

The split between experimental print publishing - including the vast tradition of artists' self-made books and multiples since the 1960s - on the one hand and experimental electronic publishing one the other hand is epitomized in the very theory of "new media", now a standard disciplinary term in the (anglophone) humanities. The most canonical definition of "new media" can be found in *The Language of New Media* (2002) by Lev Manovich (a research fellow at WdKA's

¹⁴(Bibliotecha).

 $^{^{12} \}rm With$ Paul Otlet's index card-based information systems created in Belgium between 1895 to 1934 as forerunners of modern search engines. Bush's and Nelson's key texts are included in (Wardrip-Fruin and Montfort).

¹³(Internet Archive: Digital Library of Free & Borrowable Books, Movies, Music & Wayback Machine), ('UbuWeb'), ('Aaaaarg'), ('Monoskop Log').

Piet Zwart Institute in 2005). Manovich defines the term according to five criteria: "modularity", "numerical representation" (i.e. digitality), "automation" (i.e. programmability), "variability", "transcoding". "Modularity" refers to the assemblage of different types of media to a whole whose parts remain technically independent (such as embedded images and videos on a website). "Variability" describes the fact that a "new media object is not something fixed once and for all, but something that can exist in different, potentially infinite versions". "Transcoding" stands for the technical as well as figurative conversion of data into different media and representations. 17

In Manovich's theory and its practical application in arts and humanities, "new media" thus factually boils down to a synonym of digital media. However, when reviewing Lissitzky's design of Mayakovsky's poetry volume through the lens of Manovich, it is striking that the 1923 book meets most criteria of "new media": It is modular in its use of icons as a navigational user interface, variable in the fact that the same poetry volume has been reprinted in numerous editions and typographic designs, and its title - "For the Voice" - points out that it is about transcoding print to speech. It even fits the criterion of numerical representation to the degree that it is structured through countable entities in an index and written in the countable code of the alphabet (since all elements of the book, even the visual shapes, were typeset with the traditional Gutenberg technology of movable lead type from a letter case).

Conversely, the issue of what is "new media" can be confusing in work based on electronic computer technology. A good example is 56 Broken Kindle Screens, a print-on-demand book designed by Silvio Lorusso (now a teacher and researcher at WdKA) and Sebastian Schmieg as part of their masters studies at Piet Zwart Institute in 2012 which received major media attention when it came out. ¹⁹ The book consists of nothing but found photographs of broken screens of Amazon's Kindle e-book reading device, with each screen being reprinted full-size on a single page. Effectively, the book is a second-order remediation or, in Manovich's terminology, transcoding: the e-book, which originally was a remediation from print to digital, is transcoded back to print, all the while preserving the hardware as a romantic ruin. Technically, this work checks all boxes of "new media" according to Manovich. At the same time, only the one criterium of transcoding is relevant for it, since it otherwise emphasizes the materiality (versus the marketing promise of dematerialization) of the Kindle device (and the paper book). ²⁰ The 56 Broken Kindle Screens are just one

¹⁵(Manovich, 27-48.

¹⁶(Manovich, 36.

 $^{^{17}}$ (Ibid..

¹⁸The term "digital media" is technically incorrect, since only information can be digital, not the medium/carrier of its storage or transmission. I use this colloquial term nevertheless, for the sake of making the text easier to read.

¹⁹(Sterling).

²⁰One of the few publishing houses specializing in experimental, hybrid analog/digital editions is *Badlands Unlimited* which was founded in 2010 by American contemporary artist Paul Chan. Its program contains e-books, print books and even objects such as billboards

of many examples of hybrid analog/digital publishing experiments. Lorusso maintains a database of related work on his website Post-Digital Publishing Archive. 21

From these and other contemporary art and design manifestations (including today's experimental music and film as shown in Rotterdam at venues like WORM and De Player), one can conclude that "old" and "new" media can no longer be clearly distinguished. Contemporary art and design increasingly fails taxonomies such as Manovich's. After Ludovico's book, a series of articles and books written in WdKA's research program investigated the "post-digital" condition after new media. This subject has been taken up internationally; among others, by art festivals such as transmediale in Berlin and in university media studies which adopted the "post-digital" moniker. ²³

In the publishing industry, hybrid print and electronic publishing is commonly referred to as "multi-channel publishing" and based on the concept of automated transcoding of a publication from one source file into multiple formats such as print book, e-book, websites and mobile applications. The idea is to save costs through one single design process for all these media instead of designing each medium individually.

Advanced multi-channel publishing technology tends to be either too complex or too expensive for small publishers and graphic designers. This issue was addressed in a joint, externally funded research project of the Institute of Network Culture at the Amsterdam University of Applied Science and the research department of Willem de Kooning Academy from 2013 to 2015. In collaboration with the art and design book publishers NAi 010, Valiz and BIS and WdKA alumni working in four graphic design bureaus, the project investigated alternative editorial and design workflows that abandoned the established Microsoft/Adobe tool chain in favor of distributed authoring systems that had originally been invented for Open Source software development, in combination with simplified markup languages and automated document format translation.

In comparison to the complex content management and document engineering systems used in large publishing houses, the workflows and solutions developed in this project were rather simple, low-tech and cost-free because they were based on available Open Source software. This way, they could be used by small

and knitted signs. In 2010, it published *The University of Reading*, the PhD thesis of Stuart (Bertolotti-Bailey), a co-founder of the art/design/theory publishing collective Dexter Sinister (which also involved Piet Zwart Institute research tutor Steve Rushton), as a set of files. This is a rare example of university scholarship intersecting with hybrid publishing, although the form chosen for this publication was chosen to reflect the design constraints of academic publishing: "For better or worse, it looks like what it is – a very long semi-academic, black-and-white A4 document built in Microsoft Word that complies with university house style". (https://badlandsunlimited.com/works/form-as-a-way-of-thinking-practice-based-phd-written-by-stuart-bailey-for-the-university-of-reading-2010-14).

 $^{^{21}}$ (Lorusso).

²² (Cramer), (Nordeman), (Vanhoe), (Wu).

²³(Bishop et al.), (Berry).

publishers who cannot afford IT specialists. All techniques and workflows were documented and explained in an Open Access handbook From Print to Ebooks: a Hybrid Publishing Toolkit for the Arts.²⁴ This toolkit was recursive in the sense of having been made with the very means and methods that it describes. In 2018, Amsterdam University of Applied Science and WdKA received research funding for a new four-year project that aims to overcome an inherent conflict in editorial publishing: to make editorial design for hybrid electronic and print publications more time-efficient without sacrificing quality of design and content.

Publishing WdKA's art and design research

After the first Hybrid Publishing research project had ended, the WdKA teachers and researchers involved (Kimmy Spreeuwenberg, Silvio Lorusso, Amy Wu, André Castro, Loes Sikkes, Michael Murtaugh and myself) and a group of senior lecturers and educational managers (Renee Turner, Aldje van Meer, Roger Teeuwen) decided that lessons learned in it needed to be applied to the Willem de Kooning Academy: literally, to the graphic and media design curriculum of Bachelors and Masters as well as to research publishing within WdKA. WdKA Hybrid Publishing was founded as an in-house think-tank and "platform for publishing research, while simultaneously conducting research through making, prototyping and incorporating iterative design processes". 25

If one reads this statement carefully, then "publishing research" can both mean to publish research and to practice publishing as research. This ambiguity describes the work of the platform very well. A first major project was a publication series linked to the Beyond Social symposia of WdKA's Social Practices curriculum (that focuses on social design and art as activist interventions). Media Design and Hybrid Publishing tutor André Castro programmed a system that could automatically and dynamically translate the contents of a collaborative authoring Wiki into the fully designed website beyond-social.org, which in turn contains programming code that can dynamically reformat its pages for print.²⁶

With the launch of WdKA Hybrid Publishing, the school created an annual research award for outstanding B.A. graduation projects. This award is not a thesis prize, but an award based on a jury's assessment of a student's art/design graduation project and thesis as one comprehensive piece of research. The jury consists of external experts, including Erasmus University scholars who are part of RASL. The prize-winning research is published both electronically and in a tangible medium (which can be print or something else) through WdKA Hybrid Publishing. This entails an editorial research process into suitable media, forms of visualization and materialization.

²⁴(Bruijn et al..

²⁵ (Willem de Kooning Academy, 'Hybrid Publishing').

²⁶ (Willem de Kooning Academy, 'Beyond Social').

For Lou Muuse's 2015 graduation work *Retour Afzender*, the student's project website was complemented with an experimentally designed book. The book was meant to provide the "stable medium of print [...] as a long-term archive where the medium of the website will be unstable and impermanent by its technical nature".²⁷ Website and book investigate Dutch asylum system through Muuse's undercover photojournalism in shelters, with the conclusion that their system is structurally designed to expel asylum seekers. The book is split into several, individually bound folders-within-a-book that mimic the bureaucratic paperwork of an asylum procedure. They are bound with the material of checkered, Chinese-made plastic travel bags that are widely known as the suitcases of the poor.

Recent WdKA Hybrid Publishing projects include Daisy Thijssen's *Meat Market*, a critical design investigation of the consumption and packaging of meat (which removes awareness of the dead animal) in the form of a glaring-red supermarket flyer, and Jade Ruijzenaar's *Crangon Crangon*, a research into the (wasteful) workings of the shrimp for which thrown-away shrimp shells were repurposed as ceramic glazing.

When the electronic versions of these publications were developed, it turned out that the standard e-book formats could insufficiently accommodate visual research. This problem had already been noted in the prior research project with Amsterdam University of Applied Sciences. But hopes that the technology would eventually improve were disappointed. Through participation in international electronic publishing conferences, we learned that the publishing industry had consolidated e-books as pure, undesigned, flat text media for genre fiction and self-published text books, while multimedia e-books had failed in the (conservative) book market and could only be sold as computer games.

As a result, the WdKA Hybrid Publishing group thought up a new format for audiovisual electronic book-like publications on the basis of HTML files that contained all embedded images - potentially also embedded video and audio - directly in their source code. They thus can be downloaded and stored as single, self-contained multimedia files and be viewed on any device with a web browser, even without an Internet connection. (These publications are available at http://hp.researchawards.wdka.nl. Their design is more extensively explained in the first downloadable e-book, *Command+S This Publication* by Silvio Lorusso and Niels Vrijdag.²⁸)

Perspectives

A future ambition for WdKA Hybrid Publishing is to interweave artistic research within RASL with experimental and hybrid publications. Doing so, it should not act as a design bureau, but as a research partner. Contemporary art that

²⁷(Willem de Kooning Academy, 'Retour Afzender (Return to Sender)').

²⁸(Lorusso and Vrijdag.

transgresses the boundaries between visual art, visual culture research, essayism and critical theory has gained prominence in the last couple of years: example include the video works of John Akomfrah and Hito Steyerl, and Adrian Piper's work in between conceptual art, academic philosophy and social critique. The question remains whether such work will conversely inspire new forms and non-traditional media in academic scholarship, continuing where McLuhan, Derrida and others left off. But the question of new partnerships between art and scholarship also concerns empirical research with its increasing reliance on complex visualizations for which traditional paper and textbook formats are no longer adequate.

New opportunities also result from Open Access which the Netherlands wants to establish as the norm for academic research publishing before the year 2020. Open Access not only forces to rethink the business models for research publishing, but even more importantly its models of authorship, distribution and presentation.²⁹ In the best case, this could make today's underground libraries of UbuWeb, Aaaaarg and Monoskop the new official research libraries and create careers for new-style hybrid scholars-artists-librarians. Clearly, the renewal of publishing has to come from art and critical scholarship, as it can no longer be expected from a conservative publishing industry that, for the most part, is preoccupied with mourning its losses.

Conversely, there is a question for the arts: If they can no longer be legitimized through the Western cultural canon, if contemporary art becomes too corrupted by art market speculation to still be credible as a critical practice, if visual culture from outside the art and design field becomes more influential for culture at large, what will remain of the arts? Could one rethink them as publishing, in the literal sense of the word?

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²⁹(Hall and Adema.

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