Prescripts and Postscripts
Mr. Robot's Digital Writing Operations

At the center of Sam Esmail's series *Mr. Robot* (Sam Esmail, 2015–2019) stands a pale boy, who is busy incessantly writing: day and night, he sits at his computer and types line by line. This boy is not an author but a hacker. His specialty is programming languages, i.e. syntax systems for organizing program instructions. It is this specialization that makes him so interesting as a character who writes because it makes it possible to consider practices and procedures of writing under digital conditions. With computers, character-based processes emerge that put the conventional understanding of written forms and functions to the test, as Till A. Heilmann notes:

> It is undisputed that the appearance of universally programmable digital computers challenges traditional notions of script in such a way that perhaps only printing with movable type or electrical telegraphy had done before. […] In the place of script's linguistic function of representation, now its productive aspects, in the broadest sense (also beyond its linguistic capacity for mediation), become the focus of attention.[1]

These aspects include the basic modifiability of what is written and what is to be written as well as the procedural nature of processing along with all of its additional operations. Computer scripts are more than text tools: they are forms of communication that not only store information but can also convey and modulate it. The following considerations will show which cultural-technical and media-aesthetic transformations are connected to this and how the series *Mr. Robot* depicts and reflects them.

1 Till A. Heilmann, "Computer als Schriftmedium," in *Handbuch Medienwissenschaft*, ed. Jens Schröter (Stuttgart: Metzler, 2014), 316.

1. Writing In

The fact that *Mr. Robot* operates with its own unique understanding of script and text can be seen in the descriptions of the individual episodes in the series. Every episode title is reminiscent of a file name, thus combining letters and numbers in a string of characters that diverges from natural linguistic conventions and instead focuses on a computer-specific usage of formal language. In the first season, each title contains a file extension from a specific video format: for example "eps1.0 hellofriend.mov" for the first episode, "eps1.1_ones-and-zer0es.mpeg" for the second episode, and so on. In the second season, the titles refer to file extensions of encryption programs: "eps2.0_unm4sk-pt1.tc" for the first, "eps2.1_k3rnel-pan1c.ksd" for the third episode, and so on. As cryptic as the episode titles may appear at first, their labeling clearly points to the inherent media logic of a program-controlled writing system, whose legibility is not aimed at phonetic conventions but at machine processes. This refers to a far-reaching transformation of the use of writing, the central features of which Sybille Krämer describes as follows:

> With the emergence of the computer, it becomes possible not only to process signs, but to transform the signs into self-moving, responsive, and thus 'behaving' objects. Contrary to the often lamented loss of the book and of writing in the age of computers, the computer does not simply make the operational space of writing disappear but opens up a new dimension of writing potential.[2]

Digitalization does not involve the erosion of writing but a transformation of its forms and functions. The possibility of machine-driven character processing develops a potential that surpasses the efficiency of phonographic speech, that transforms and modifies it. This is the potential at the core of the series *Mr. Robot*—and, along with it, the question of how and to what ends it can be used.

Elliot Alderson, the series protagonist, proves to be the greatest virtuoso in the new art of writing. Elliot works as a cybersecurity engineer at the IT company *Allsafe Cybersecurity*. There, his job consists of tending to the protection of corporate programs and IT infrastructures. His particular skill set,

2 Sybille Krämer, "'Operationsraum Schrift': Über einen Perspektivwechsel in der Betrachtung der Schrift," in *Schrift. Kulturtechnik zwischen Auge, Hand und Maschine*, ed. Gernot Grube, Werner Kogge, and Sibylle Krämer (Munich: Fink, 2005), 46.

however, enables him not only to uncover security vulnerabilities inherent in programs but also to exploit them. Elliot is a highly skilled hacker who knows how to apply his talents beyond the clearly defined job requirements. His actual specialization consists of browsing through the lives of others, gaining access to their data traffic, and thus inscribing himself in their digital existences.

Elliot's writing skills at first rely on a particular reading ability. "I'm good at reading people,"[3] he says at the very beginning in a voiceover—and is primarily referring to the reading of seemingly protected data sets. For Elliot, being able to read someone means gaining access to digitally written self-representation and life stories: emails, chat histories, social media accounts, and dating profiles. While, for example, his psychotherapist, Krista Gordon, tries to look behind Elliot's façade and explore his innermost being in extensive therapy sessions, he has long since succeeded in deciphering her digital identity. Elliot has cracked her passwords and hacked into her life: He knows about her failed marriage, her weaknesses, and her interests; he knows her new partner whom she met on a dating site, and he is able to read her digital correspondences, all of her notes and text messages.

In a broader sense, these texts can be understood as literary forms, as written documents produced by computer-assisted writing. "Literature is an ongoing system of interconnecting documents,"[4] Theodor Nelson declared in the early 1980s in his influential work *Literary Machines*. He thus provides an early approach to an expanded interpretation of the concept of literature focused less on individual authors and single works and more on a variable text system.[5] Nelson's vision is principally directed toward overcoming the book

3 *Mr. Robot*, 1:01: "eps1.0_hellofriend.mov".

4 Theodor Holm Nelson, *Literary Machines* (South Bend, IN: The Distributors, 1987 [1980]), 2/9. (The page number provided corresponds to the non-linear design of the book, whereby the first digit denotes the chapter and the second digit the page.)

5 Among the most important precursors to Ted Nelson's vision was Vannevar Bush's design of the Memex, a machine for connecting documents and storing texts. Cf. Vannevar Bush, "As We May Think," *Atlantic Monthly* 176, no. 1 (1945): 101–108. Following Bush and Nelson, Jay David Bolter and Espen J. Aarseth have addressed the development of a computer-based intertextual system of reference that dissolves the boundaries between author and reader and thus re-poses the question of the inner constitution of literature. Cf. David Jay Bolter, *Writing Space: The Computer, Hypertext, and the History of Writing* (Hillsdale, NJ: Lawrence Erlbaum 1991) and Espen J. Aarseth, *Cybertext: Perspectives on Ergodic Literature* (Baltimore: John Hopkins University Press, 1997).

as the dominant literary form. Instead, he imagines the formation of a flexible data space based on non-sequential practices of writing and reading as well as on the dynamic linking of documents.

Elliot moves within a similar data space during his acts of hacking—albeit far more agilely and flexibly than Nelson had envisioned in his utopia of literary machines. Whereas Nelson's had started from a chiefly polydirectional distribution of reading and writing positions, Elliot must first deal with the uneven distribution of rights to access built into the system. Unlike Nelson had hoped, the vision of unrestricted networking and distribution of texts has by no means been realized in the digital age. Instead, a hierarchical system regulates who is allowed certain operations of writing and reading and how they can be used, as Claus Pias emphasizes:

> Users have the right to inputs and outputs that a given program allows. System administrators, however, are authorized to write juridical texts for access management, and programmers have access to the source codes themselves. Users—to put it succinctly along with Lyotard—do not have the right to express themselves "metaprescriptively." They are allowed to follow rules (in other words, programs) but not write any. […] The decisive factor is thus not the absolute, technical boundary between the invisible digital and the visible analog computer but those programmed and controlled, paid for and protected boundaries that, as software, always already regulate who has access to which part of the system, in other words, who has which options at his or her command and what remains hidden for whom.[6]

As a hacker, Elliot's main competence consists of overriding the system's rules. His skills exceed the simple typing of the average user because they are not limited to allocated options of use but encompass all technical reading and writing processes—even and especially those from which others are excluded. It is precisely this proficiency that allows him to not simply accept the prescriptions of the program but to challenge them by inscribing his hacking into it.

Elliot's hacks are not just technical shenanigans but writing operations that entail serious consequences. As such, they are organized serially in principle, as already becomes clear in the pilot of the first season of *Mr. Robot*. Thus, it is notable that Elliot acts like a serial offender: he does not indulge

6 Claus Pias, "Der Hacker," in *Grenzverletzter. Figuren politischer Subversion*, ed. Eva Horn, Stefan Kaufmann, and Ulrich Bröckling (Berlin: Kulturverlag Kadmos, 2002), 253–254.

in the individual, unique action, or the singular, extraordinary motif but in the continuous intervening into locked data systems, which themselves have serial structures. Nearly all the people Elliot comes into contact with are read out via their data traffic. This does not involve so much a voyeuristic form of spying, in other words, observations from a safe distance, but a type of intervention that does not remain ineffective for those being spied out. In the case of his psychotherapist Krista, for example, Elliot not only tracks her digital communications but also focuses on other individuals that he finds in her network contacts. Every operation entails an additional operation, and every additional operation comes with a new hurdle, in other words, with increasing challenges to the act of inscription. While in Krista's case, a simple guess of the password is sufficient to gain access to her email and social media accounts, the readout of her date, Michael Hansen, proves to be more complicated. Now, Elliot has to acquire the man's smartphone through physical contact, control the apps installed on it, and then use specialized software for hacking his login credentials. Consequently, Elliot is able to successfully expose Krista's new partner as a fraudster: Michael Hanson is actually Lenny Shannon, a married man who uses various alias identities to initiate his numerous affairs. Lenny's fraud, itself uncovered through fraud, leads Elliot to follow up the inscription into Krista's system with a deletion: through blackmail, he forces Lenny to disappear from Krista's life.

Elliott's writing operations show what it means to acquire mastery over digital writing systems. Only by not submitting to program-controlled typewriting, but by knowing how to interfere in writing systems, does one become a sovereign digital author.[7] This has less to do with the content of the acquired texts and more to do with the media conditions of digital reading and writing themselves: with a profound understanding of their foundations and the subversion of their system-immanent regulations. "The computer," writes Derrick de Kerckhove, "is the most suitable technology for the disposal

7 Dirk Baecker even sees the hacker as the new intellectual of digital society. Cf. Dirk Baecker, "Vom Priester zum Hacker: Die Konjunktur des Intellektuellen," *Der Freitag* 51 (December 12, 1997), 15. The Google software developer Stuart Feldman also recognizes a similarly creative potential, declaring in an interview: "Writing code […] is like writing poetry: every word, each placement counts. Except that software is harder, because digital poems can have millions of lines which are all somehow connected." Cf. Ludwig Siegele, "The Beast of Complexity: A Survey of Software," *The Economist*, April 12, 2001.

of language and not only because the computer replaces it with machine language but because it takes over a large portion of the cognitive operations that previously belonged to our field of conscious functions."[8] As a hacker, Elliot knows of this capability of computers, and he therefore knows more than a mere user: he knows the inner logic of machine language, and he can not only follow it but also make it productive. In this sense, inscribing also involves an encroachment: an intervention that understands how to apply and exploit the possibilities of the technically operable writing system beyond all upstream rules.

2. Rewriting

Elliot's encroachments on only seemingly closed worlds of data are not limited to developing readouts of individual accounts but escalate into an offensive force that is directed toward the entire system of mass cultural programming. Connected to this is a sense of uneasiness about the type of industrial standardization that makes commodities generally accessible but also devalues them in the process. Every consumer, indeed all of society is included in a network of product circulation that endorses and demands conformity, as Elliot points out: "How do we know if we're in control? That we're not just making the best of what comes at us, and that's it? Trying to constantly pick between two shitty options? […] Coke or Pepsi? McDonald's or Burger King? Hyundai or Honda? […] In fact, aren't they…aren't they the same? No, man, our choices are prepaid for us, long time ago."[9]

Elliot's critique of a system of standardized commodity production, to which the individual must adapt and subject himself, is ignited by an enlarged program of serialization that produces not only always identical products, but also always adapted and self-adapting consumers. Because industrially organized consumer culture is all-encompassing and capable of penetrating every area of life, every option for selection seems to be an illusion: every possibility for a selection supposedly at our fingertips has already been made into the default setting for us by someone else.

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8 Derrick de Kerckhove, "Vom Alphabet zum Computer," in *Kursbuch Medienkultur. Die maßgeblichen Theorien von Brecht bis Baudrillard*, ed. Claus Pias, Joseph Vogl, Lorenz Engell, Oliver Fahle, and Britta Neitzel (Stuttgart: DVA 1999), 123.

9 *Mr. Robot*, 1:02: "eps1.1_ones-and-zeroes.mpeg".

This critique was formulated early on in media theory, prominently, for example, by Günther Anders[10] and Theodor W. Adorno.[11] The paradigm of mass culture developed by Critical Theory, however, takes on a new facet in the digital age. Here, it does not only involve the production of commodities but also the processing of information. Each user is not only connected to this type of data processing, they also propel it and expedite it, as Elliot states: "The world itself is just a big hoax. Spamming with our running commentary of bullshit masquerading as insight, our social media faking as intimacy."[12] The more information that is disseminated, the more comments and ratings that circulate, the more these are linked and forwarded via social media platforms, the more stable the system becomes. In this sense, according to Elliot, we do not go from consumers to producers, as the idea of media prosumers in digital participatory culture holds,[13] but remain contributors to a data-processing control program.[14]

The conclusion that Elliot draws from this observation is now not to disseminate other, critical content, but to manipulate the media foundations of the system itself. This includes the realization that the program's functional power has nothing to do with the mediation of certain meanings but that it is the form of the operation itself that is capable of exerting control. Thus, algorithms, for example, are capable of influencing purchase decisions, and not because they have something to say about certain products but because they are a repetitive process of calculation that operates with a series of characters and transforms them at the same time. It is this potential for structural trans-

10 See Günther Anders, *Die Antiquiertheit des Menschen. Bd. 1: Über die Seele im Zeitalter der zweiten industriellen Revolution* (Munich: C.H. Beck, 1985 [1956]).

11 See Theodor W. Adorno, "Culture Industry Reconsidered," in *New German Critique* No 6 (Autumn, 1975), 12–19.

12 *Mr. Robot*, 1:02: "eps1.1_ones-and-zeroes.mpeg".

13 See for example Henry Jenkins, Mizuko Ito, and Danah Boyd, *Participatory Culture in a Networked Era: A Conversation on Youth, Learning, Commerce, and Politics* (Cambridge, MA: Polity Press, 2016).

14 Alexander R. Galloway has stressed this aspect: even when the communication structure of the Internet suggests exchanges free of hierarchies, it is not free of technical presettings and control mechanisms built into the system. Cf. Alexander R. Galloway,*Protocol: How Control Exists After Decentralization* (Cambridge, MA: MIT Press, 2004).

formation, this particular form of agility and generativity[15] of process-driven operations, that Elliot exploits. It no longer involves the act of inscribing but of re-scribing, rewriting: the use of a disruption that forces the system into a redirection. The bug implemented by the hacker, the error in the program, not only causes the system to crash but drives transformations and modulations, as Elliot explains: "The bug forces the software to adapt, evolve into something new because of it. Work around it or work through it. No matter what, it changes. It becomes something new. The next version. The inevitable upgrade."[16]

Against a system of all-encompassing control of data-processing, the hacker sets the loss of control.[17] He is aware of the possibility of a structural change inherent in the program's writing processes themselves. This change is embedded in a sequence of repetitions. On the one hand, it is organized serially as a chain of computational processes; on the other hand, it is also linked to transformations, relentless shifts that are no longer bound to the intention of a single subject. Every transgression produces a further dissolution of boundaries, every movement provides for a new version. What before had seemed manageable, capable of being controlled and regulated, is now revealed to be a border area that defies control. "Hacking incessantly expands the territory of the play of symbols, and preferably at its edges,"[18] as Claus Pias notes. In this sense, the hacker's disregard for technical standards, regulations, and rules sheds light on a creative potential that exchanges the abstract world of fictional writing for the concrete situation of auto-operative writing practices. As Alexander Galloway states, this is where an all-encompassing transformation of the understanding of media conditions is possible,

15 This aspect of generativity has been especially emphasized by Geoff Cox, Alex McLean and Adrian Ward, "The Aesthetics of the Generative Code." Online. http://generative.net/papers/aesthetics/.

16 *Mr. Robot*, 1:03: "eps1.2_d3bug.mkv".

17 According to Martin Warnke, the principle of losing control is intimately connected with computer-technical networking processes: "As the most prominent example of a networking of consciousness and computers on a grand scale, the Internet demonstrates what computer science must adapt to: to conscious renunciation of control, to allowing emergent processes, to self-organization, to network topologies, which, in technology as in biology or sociology, follow an approachable law—that of freedom of scale—but nevertheless cannot be modeled in detail in their development." See Martin Warnke, *Theorien des Internet zur Einführung* (Hamburg: Junius, 2011), 175.

18 Pias, "Der Hacker," 262.

in other words, the technical protocol turning against itself: "When viewed allegorically, hacking is an index of protological transformations taking place in the broader world of techno-culture."[19]

The series *Mr. Robot* reflects this possibility of transformation through an aesthetic that emphasizes constant change. Crucial here is the fact that a categorical differentiation between the preceding and the following, between the mere idea and its implementation, between option and realization, can no longer be discerned;[20] rather, one inverts into the other, both interact with and permute one another to the point of indistinguishability. This imbalance sets in right at the beginning of the series. "Hello, friend," Elliot says in a direct address to the viewer. "Hello, friend? That's lame. Maybe I should give you a name. But that's a slippery slope. You're only in my head. We have to remember that."[21] The basic narrative structure plans on the fact that we, as the viewers, could be an illusion, in other words, that we may only actually exist in Elliot's head. Just as uncertain as this positioning, all others subsequently appear: the enigmatic Mr. Robot, the digital identity designs of the other characters, the overpowering, global conglomerate E-Corp—they could all spring from the imagination of the schizophrenic protagonist, i.e. merely exist virtually, or they could be part of the real world with which Elliot actually interacts. The images illustrate the instability of the inner fictional universe of the series by frequently oscillating between two extremes—also, and especially, when it concerns the potential of inscribing and re-scribing. Thus, in some scenes, Elliot appears in front of an empty background that comes off as a blank page and, in others, in front of starkly contrasting scenery that is full of moving light elements (Fig. 5).

19 Galloway, *Protocol*, 157.

20 This aspect is especially emphasized by Don Fallis, "0n-keeping-everybody-1n-the-d4rk.docx," in *Mr. Robot and Philosophy. Beyond Good and Evil Corp*, ed. Richard Greene and Rachel Robinson-Greene, 171–180 (Chicago: Open Court, 2017).

21 *Mr. Robot*, 1:01: "eps1.0_hellofriend.mov".

Fig. 5: Elliott in front of different backgrounds

While the first shot creates a type of stable grid through a symmetrical orientation of vertical and horizontal lines, the second shot is out of line through the low-angle, oblique perspective. The lack of saturation in the first image causes it to appear pale and colorless, whereas the second image comes off as obnoxiously bright. Even if the contrast between both situations is obvious, there are also still similarities between the two: both images are structured by grid designs, and in both, Elliot is placed in such a way that he just misses the middle of the image. He is positioned either too far to the right or to the left, in addition to often being in the lower half of the image, so that he is visually diminished. Elliot does not fit into the pattern; he is the disruptive factor personified. As a result, he appears as an irritating figure of interference which one can no longer clearly locate at any fixed point.

The most realistic elements, and this is the actual punch line of the series, are the computer-technical writing operations themselves.[22] Within the fictional universe of *Mr. Robot*, there are no stable distinctions, but only an unmanageable mesh of relations, a highly mobile game of interchangeable positions. Throughout the entire series, the level of transition between actual

22 *Mr. Robot* has been repeatedly praised or its real-life presentation of hacker culture—by cybersecurity companies such as Avira or Kaspersky as well as by fans and bloggers. In fact, the exact depiction of computer technology operations was so important to writer and director Sam Esmail that he consulted with several IT experts and employees of the FBI Cyber Division: every individual detail should relate to actually existing source codes and toolkits, and every input command should be a command that one could actually perform on a computer. On the technical accuracy of the processes depicted in the series, see in detail: Kim Zetter, "How the Real Hackers Behind Mr. Robot Get It So Right," *Wired*, July 15, 2016.

and virtual is vague and blurry—only the mediating instance of the crossing of boundaries, i.e. the writing processes themselves, remain stable. Here, the images are clearly aligned; here, they adhere to the structure of linearity; here, nothing is stretched or shifted. This can be seen, for example, in the first episode of the second season, "eps2.1_k3rnel-pan1c.ksd." The episode shows Elliot's attempts to withdraw from the world of hacking and lead an "analog" life without computers—for example, by writing a classic paper diary. Upon closer inspection, however, it becomes apparent that the combinations of numbers and letters that he writes in his notebook are nothing more than computer codes. Thus, the penultimate line shows the following hand-written information: "Kernel panic—not syncing". The viewer has already seen this note shortly before on a black screen that shows the same information in the last line: "Kernel panic—not syncing" (Fig. 6).

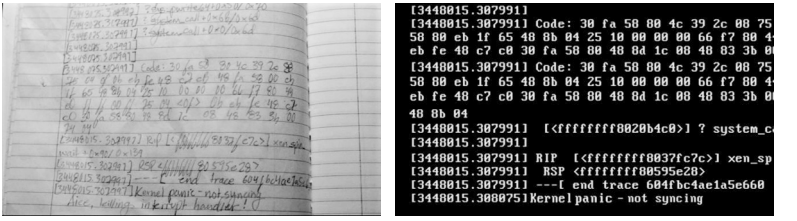

Fig. 6: The error message "Kernel panic" is displayed alternately on paper and on a computer screen.

A kernel panic involves a "safety measure taken by an operating system's kernel upon detecting an internal error in which either it is unable to safely recover or continuing to run the system would have a higher risk of major data loss."[23] This type of dysfunction seems to also be playing out in Elliot himself, as a rapid sequence of pictures of his wide eyes with subjective shots of both distorted and pixelated fragments of his perception suggests. As the diagnosis of a malfunction, the repeatedly intercut screen with information about synchronization problems proves to be an inevitable text message, one which is not bound to an individual interpretational perspective but which derives from the system itself. Even more so: as a formal language statement, it is capable of accomplishing more than the hand-written note because it is

23 https://en.wikipedia.org/wiki/Kernel_panic.

technically executable, as Alexander Galloway explains: "Code is a language, but a very special kind of language. Code is the only language that is executable. […] So code is the first language that actually does what it says—it is a machine for converting meaning into action."[24] In this way, in all inversions and distortions that the series depicts, the superior level of observation in the operating system remains untouched: as the totality of that which can be written, displayed, and carried out as information.

3. Writing Onward

Digital writing systems have their own medial sense. Their specific quality lies in the non-linearity and interminability, in the structural possibility of generating moveable connections. Through this unique form of flexibility, they broaden the framework of the textual structure and enable the transition from a fixed, inalterable arrangement of meaning to a procedural form of meaning production. The series *Mr. Robot* seizes these processes not only thematically but also reflects it in its images and even beyond them, as the following will demonstrate.

One example of the mobility of referential structures is found in the numerous intertextual references that the series invokes. This network of references is realized in both its visuals and its sound: on the visual level, for example, by referencing Stanley Kubrick's *The Shining* (1980), when Elliot, in his delusions, glimpses the eerie twin girls from the Overlook Hotel[25] and, on the audio level, through its use of a cover version of the Pixies song "Where Is My Mind?,"[26] that refers to the background music used in the finale of David Fincher's *Fight Club* (1999). Both allusions refer to stories of schizophrenia that have had staying power in the broader pop culture consciousness: both *The Shining* and *Fight Club* deal with dissociative identity disorders, and both films depict the disturbances associated with them through unreliable narration, distorted imagery, and innovative sound design.[27] *Mr. Robot* ad-

24 Galloway, *Protocol*, 165–166.

25 *Mr. Robot*, 2:01: "eps2.0_unm4sk-pt1.tc".

26 Ibid., 1:09: "eps1.8m1rr0r1ng.qt":

27 In addition to the two examples mentioned above, numerous other film references can be traced, such as allusions to *Psycho* (Alfred Hitchcock, 1960), *A Clockwork Orange* (Stanley Kubrick, 1971), *Taxi Driver* (Martin Scorsese, 1976), *Network* (Sidney Lumet, 1976), *The Matrix* (Larry and Andy Wachowski, 1999), and *V for Vendetta* (James

dresses these themes and motifs in order to make them recognizable as influences and, thereby, to design a flexible system of aesthetic transfer. This has less to do with the fact *that* complex and unreliable narration is used[28] than with the question of *how* this is done. The central focal point is the recourse to the dynamic operativity of digital sign systems—also, and especially, when it concerns their representability.

A noticeable cue to this can be found in the third episode of the first season. Here, Romero and Mobley, two hackers from the *fsociety* collective, are watching the film *Hackers* (Iain Softley, 1995), more specifically: a sequence that shows the filmic visualization of the virus injected into the computer system as wildly flashing animations.[29] "Hollywood hacker bullshit," Romero comments. "I've been in this game for 27 years. Not once have I ever come across an animated singing virus." Mobley replies: "I have yet to fly through a *Tron* city directory structure." Romero then declares: "I bet right now some writer's working hard on a TV show that'll mess up this generation's idea of hacker culture." The criticism of the implausibility of fictional hacker scenarios formulated here refers to those over-stylized depictions in which the inner world of computer systems is projected onto the outer world. In both *Hackers* and *Tron* (Steven Lisberger, 1982), the program's processes that actually occur invisibly are visualized as animated patterns: bits fly through the air, pixel grids surround the characters, columns of numbers leave the computer screen and buzz around freely through space. Romero's remark can be understood as a self-referential hint—a reference to Sam Esmail, the writer behind *Mr. Robot*, who makes it his business to create a counter-image to unrealistic hacker fantasies. It is remarkable how resolutely the series *Mr. Robot* refrains from any type of fictional, stylized depictions of programming and data processes and how decisively it insists on the fact that digital writing operations

McTeigue, 2005). On these and other allusions, see Matt Zoller Seitz, "Why *Mr. Robot's* Film References Are Subtler Than You Think," *Vulture*, July 15, 2016.

28 On traditions and possibilities of unreliable narration cf. *Was stimmt denn jetzt? Unzuverlässiges Erzählen in Literatur und Film*, ed. Fabienne Liptay and Yvonne Wolf (Munich: edition text + kritik, 2005); *Falsche Fährten in Film und Fernsehen (Maske und Kothurn, Jg. 53/2–3)*, ed. Patrick Blaser, Andrea B. Braidt, Anton Fuxjäger, and Brigitte Mayr (Vienna/Cologne/Weimar: Böhlau, 2007); *Unreliable Narration and Trustworthiness. Intermedial and Interdisciplinary Perspectives*, ed. Vera Nünning (Berlin/Boston: De Gruyter, 2015).

29 *Mr. Robot*, 1:04: "eps1.3_da3m0ns.mp4", TC 00:15:15–00:15:36.

can only be mediated by actually existing interfaces.[30] Whatever is going on inside the computer is hidden from view. What can be represented, however, are the input and output data that appear on the screens, and even more: the media potential of linking and interlinking that are connected with them.

The significant innovation of *Mr. Robot* consists of the fact that it does not limit the dynamics of digital networking to the interior universe of the series but expands these dynamics beyond the series' fictional boundaries. Behind this is the claim to make every hacking depicted hackable itself, that is, not to aestheticize the information shown as metaphorical patterns, but to make it comprehensible to the TV viewer by means of his or her own computer operations. As a result, an undeterminable variability between fiction and reality emerges. Thus, the codes shown in the series are not only authentic character sequences but are themselves executable: whatever appears on the intra-fictional screens has a real-world counterpart. In this way, the series develops a complex network of additional information, a kind of application prompt directed at the viewer as user: "Any number, QR code, bar code, host name, or IP address that appears on the show also has a counterpart in real life. Plug that information into a browser, and you'll go to a website. Freeze frame a scene, scan the code, and it will lead somewhere."[31] The websites that can be accessed offer various sets of information and potential applications: they range from specially designed homepages of the companies presented in the series to interactive chat programs to the hacker community *fsociety*'s digital meeting places, which contain secret input commands with which one can access even more IP addresses.[32] Along with this complexly designed web presence, there are further intermedia possibilities of connecting: such as, for example, the mobile game *Mr. Robot:1.51exfiltration.apk*, developed by Telltale Games, in which the user can interact via a messenger app with the main characters from the series or the Virtual Reality application *Mr. Robot – Virtual Reality Ex-*

30 In this sense, *Mr. Robot* deviates markedly from those current tendencies in series aesthetics that locate computer fonts beyond their place on the display and visualize them as information freely floating in space—such as, for example, the three-dimensional animated graphics in the hacker series *The Code* (Shelley Birse, 2014–2016), or the experimental text overlays in *Sherlock* (Mark Gatiss and Steven Moffat, 2010–2017).

31 Matthew Giles, "How *Mr. Robot*'s Incredibly Detailed Easter Eggs Come Together," *Vulture*, September 1, 2016.

32 Kayla Cobb provides an overview in Kayla Cobb, "Every Easter Egg from *Mr. Robot* Season Two So Far," *Decider*, August 25, 2016.

perience 360°, created by Sam Esmail, which confronts the viewer with pivotal moments of Elliot's past.

What these expansions all have in common is their encouragement of viewers not only to consider the digital writing and reading processes addressed in the series but also to become involved themselves. In doing so, the constantly self-expanding interlinking points to one of the basic practices of hacking: the purposely implanted virus. "Viruses," Ruth Mayer and Brigitte Weingart explain, "recode foreign operating systems for their own purposes and thereby undermine asymmetrical power relations."[33] In a digital context, this applies not only to the danger of contamination but also the non-linear and therefore non-directional form of a transmission made possible only by network-based forms of interaction. Crucial here is the double process of information circulation: in the digital transmission chain, each link is both recipient and transmitter of the pathogen. This is precisely why the virus is brought into play where the destabilization of established hierarchies and the overcoming of system boundaries are at stake. Of particular importance is the self-replicating power of infection, or more precisely: its dynamic connectivity. Mayer and Weingart emphasize that "[t]he logic of infection cannot be understood in the terms of individuality, directionality, and linearity. Rather, it is constantly creating new supra-individual, flexible, and instantaneous connections and complexes."[34] This principle of non-linearity and flexibility is not only featured as a motif in *Mr. Robot* but is also driven by intermedial extensions. It then becomes apparent that digital communication processes not only concern the transmission of data but also data processing: the processing of information.

The seriality that underlies *Mr. Robot* is a specifically digital seriality: it is based on connectivity and variability, on the constant transformability of shifting relations. This applies to both the writing and reading processes prominently addressed in the series, as a result of which a new understanding of literature begins to emerge and spread, and to the constitution of televisual narration as a whole. What can be observed in *Mr. Robot* is a profound grappling with processes of media upheaval. These include a departure from the fixed text of the analog letterpress age as well as a rejection of the

33 Ruth Mayer and Brigitte Weingart, "Viren zirkulieren. Eine Einleitung," in *Virus! Mutation einer Metapher*, ed. Ruth Mayer and Brigitte Weingart (Bielefeld: transcript 2004), 9.

34 Ibid., 25.

linear, rhythmic narration found in pre-digital television. We no longer write on paper but type on our computers, and we no longer zap through pre-programmed television with fixed broadcasting schedules but move through variable streaming offerings. Now, all of this has become part of our everyday digital life: previously stable demarcations are replaced by the possibility of increased intervention. Bringing this to our attention and making it productive as an aesthetic reflection are the greatest achievements of *Mr. Robot*.