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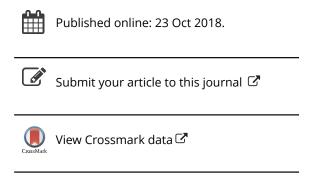
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ORIGINAL ARTICLE



Talking by letter: the hidden history of female media fans on the 1990s internet

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ABSTRACT

Women in the early 1990s went online for the first time and brought media fandom with them. Drawing on oral history interviews conducted with fans in 2012, this article describes the ways in which women's burgeoning participation in internet spaces both defied and reinculcated pre-existing gendered divides in computing. Women used the new affordances of the internet to create and to augment social relationships with far-flung likeminded fans and to forge new communities devoted to their particular interests, especially via self-hosted mailing lists. They also established web archives devoted to preserving and maintaining their own fan production and history. However, the technical constraints of mailing lists and early archives drove fans to third-party journal sites in increasing numbers after the year 1999, setting up conflicts between fans and site owners with fans at the disadvantage. Nonetheless, the legacy of the first media fans online primed the expansion of fandom and especially fan fiction after the year 2000, to the extent that the internet is now understood to be for fan fiction.

ARTICLE HISTORY

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KEYWORDS

Fandom; fan fiction; internet history; mailing lists; online archives; online platforms

Introduction

The 1990s were an extremely consequential decade in the history of the Internet and the World Wide Web in the United States and worldwide. As users unaffiliated with military and educational institutions began to go online in larger numbers than ever before, lasting patterns of internet usage were established, including a lasting gender divide in forms of internet participation that was to some extent a recapitulation of the gender divide that had recently been inculcated in computing and related fields. Marie Hicks (2017) writes of the gendered history of labour in computing that "Once computing started to become a more desirable field for young men, women were largely left out, regardless of what they might have been capable of or what they might have preferred. A gendered history of topdown structural discrimination defines the shape of the modern computing industry in the Anglo-American world" (p. 3). Women's burgeoning participation in media fandom online in the 1990s is thus part of what Janet Abbate (2012) calls a "much-discussed paradox:" namely, that "women's

numbers in computing have declined since the mid-1980s in the United States, even as women's participation in other areas of science and technology has risen" (p. 3).

This paradox notwithstanding, women's going online in this decade was part of the process of what Nancy Baym (2015) describes as socialising the internet and computers at large, an unlikely development from the perspective of computer technology in the 1960s: "Computers were never envisioned as an interpersonal medium. [...] But, once networked, people took advantage of the affordances they did offer to make them into a social resource" (p. 175). Among communities of media fans online, the legacies of these 1990s internet practices continue to shape discourses about how fans do and should engage with media and with each other down to the present, starting with the fact that the internet is now a primary "social resource" for fandom. Despite gendered patterns of internet participation, by even very rough quantitative estimates the amateur cultural production of fans on the internet now vastly dwarfs the official, licensed production of media texts themselves, a development that both demonstrates the importance of these 90s internet communities and was enabled by them (De Kosnik, 2016; De Kosnik et al., 2015). If the internet is now for fan fiction, it is partly due to the legacy of the women who first went online in this decade.

Drawing on more than 50 oral history interviews conducted by a three-person team, this paper examines how primarily English-speaking female fans of Anglophone media—primarily members of the small but vocal subculture focussed on "slash" fanworks, depicting relationships between male characters in established media—got online in the 1990s and what they did when they got there. Abigail De Kosnik's (2016) book based on these interviews, Roque Archives: Digital Cultural Memory and Media Fandom, explores the politics of digital cultural memory and interprets fan fiction as performance; this paper looks at the ways in which predominantly female fans initially sought to self-segregate by means of locked communities, secret mailing lists and other hidden forums, ceding a crucial portion of the visible internet discourse to other kinds of fans and fan practices that were more palatable to established cultural gatekeepers offline. As technical platforms evolved, however, and as fan communities became more established on the internet, early fan norms of secrecy gave way to increasing visibility (Coppa, 2006). It is possible to discern through these oral histories the ways in which the affordances of early internet platforms played a crucial though frequently unacknowledged role in shaping the ways that female fans interacted with each other, with media, and with society at large online in the 1990s and beyond.

Fandom goes online

Science fiction and media fandom cultures primarily comprised of women in the English language sphere have a history stretching back to the 1960s, with the release of the spy show *The Man from U.N.C.L.E.* (1964–1968) and *Star Trek* (1966–1969). Fans of all genders in this period fit Cornel Sandvoss's (2005) broad, somewhat ahistorical definition of fandom as being constituted by practice, namely "the regular, emotionally involved consumption of a given popular narrative or text" (p. 8). Sandvoss stipulates that in order to be a fan, as opposed to a casual viewer or consumer, this affective consumption must form part of a given individual's identity—the difference

between having seen an episode of Star Trek and self-defining as actively interested in Star Trek, for example (p. 157). Within the broader, male-dominated Anglophone science fiction and media fandom subculture, which had roots stretching back to the 1930s, female fans quickly established a vibrant fan culture centred around physical interactions and forms of creative exchange, particularly the production of fanzines containing fan art and fan fiction, and conventions at which fans interacted with one another and purchased and read those zines (Lichtenberg, Marshak, & Winston, 1975; Coppa, 2006).

By the time the first civilians gained access to the internet at the end of the 1980s, these forms of media fandom were well-established, but participation in them required a certain amount of insider knowledge and capital, as attending conventions required transportation, lodging, and other costs on top of an often hefty badge fee. Fans who lacked the requisite means and connections to take part in this world were shut out, and frequently may not even have known of its existence in the first place. As one fan who grew up in lowa noted, before the internet, "we didn't have any way of connecting to a broader community" (Ellen Fremedon, 2012, p. 1).

Our project conducted 56 interviews with 50 fans who were known to myself and the other two interviewers, a tranche of fans who could speak to our primary concern with archives, platforms, and the history of media fandom on the internet. Our interviewees comprised a reasonable spectrum of age ranges, and they were representative of online Anglophone media fandom in that the vast majority of them identified as female or non-male, and as queer in the broad sense of not heterosexual or not exclusively heterosexual. The majority of our interviewees, however, were white Americans, and though we did interview some fans who participate in fandom bilingually or on an ESL basis, the interviews cited in this article are from fans who participate in fandom primarily or solely in English. To some extent, this bias reflects the internet's founding infrastructure, which was dominated first by the United States and then by English-speaking countries generally. For interviewees' full demographic data and further information on the general queerness and femaleness of media fandom online, see De Kosnik (2016).

The fans our project interviewed who got online in the earliest days of the nonmilitary internet and the World Wide Web, in roughly 1989-1992, almost universally did so through their workplaces: as media scholar Henry Jenkins noted in his interview, the internet was anchored to male-dominated professions (military personnel, academics, R&D scientists), and so those women who did get online in this era were quite outnumbered (Jenkins & Jenkins, 2012, p. 27). One fan who had worked in IT in the 1980s and had actually gotten online in the very early 1990s, when bulletin board systems [BBS] and the distributed discussion forum Usenet dominated the discourse, corroborated Jenkins' point from her own experience: because these platforms had to be sought out specifically and weren't public, there were few norms for interactions, and the result was that these platforms, especially BBS, were extremely male-dominated (Meri Oddities, 2012, p. 14).

Men and women have a long history of experiencing fandom and participating in fannish activities differently. While it would take a book to fully discuss the dimensions of and reasons for these differences, broadly speaking women's fandom is more likely to focus on interpretation of characters and emotional dynamics, and more likely to produce such transformative works as fan fiction. Returning to Sandvoss' definition of fandom, we might productively qualify and modernise it by noting that if fandom constitutes regular, affective consumption of media objects or texts, in female-oriented fandom those texts are just as if not more likely to be fan-produced media objects and texts as officially produced, "first order" media. Such "second order" media objects (to adapt Japanese terminology), because they are fan created, may cater to the character-centric focus of female-oriented fandom more directly.

The internet quickly exposed these differences to all parties concerned, as Henry Jenkins and his wife Cynthia Jenkins (2012) recalled:

HJ: You had all these different fandoms. If you go back to my fandom as a male experience versus Cynthia's experience, those conversations [between male and female fans] hadn't happened before. So to be a ... male Star Trek fan [meant that you] lived in a world where you knew how to read Star Trek, what to talk about, what episodes mattered. And women lived in a totally different world. And you created a discussion list, and you brought them together, and, "What?!"

CJ: You knew a male *Star Trek* fan who could tell you specs on every kind of ship. It [male fandom] is, like, totally hardware centered.

HJ: [Male fans] knew the command structures, the uniforms and the badges, the ships and the technology. And had a totally different sense of what episodes were good and bad than those [female fans] who were into the characters. (p. 41–42)

The response of many male fans was to declare this heretofore unknown, female form of fandom, its differing interests and emphases and its works to not be "real" fandom, directly anticipating the discourse of "fake geek girls" that arose in the 2010s. Female fans quickly learned not to present as obviously female and not to discuss their impermissible sensibilities and activities in open forums, and instead turned to closed communities where their engagement and interests would not be subject to censure.

Despite potential harassment online, the internet offered new opportunities for connection and real enjoyment. For some, finding Usenet was a matter of clicking on an icon on their work computer during a temp job; others were mentored into the internet by people at their workplace, who told them about Usenet or email and how to use it (Cofax7, 2012, p. 1–2; Constable Katie, 2012, p. 12). Those fans who were old enough to have a basis of comparison for fannish discussions on the internet versus offline still marvel at the speed and simultaneity of electronic communication: email, one of them said, "was astonishing! Oh my god," she recalled, "we're talking by letter, instantly. This is incredible! It was amazing" (Arduinna, 2012a, p. 5).

What does one do on the internet?

The interviews make clear that in this early era fans tended to use the internet in a number of ways that belied the nascent divide between "online" and "the real world" that came to dominate discourse about the internet by the end of the decade and the first dot-com boom. Perhaps most obviously, fans used the internet as a means to

augment social relationships: the internet was their way to find like-minded people who shared their interests, whether those interests comprised relatively broad categories like "science fiction" or extremely niche fixations. One fan who goes by the pseudonym Arduinna, for example, didn't know anyone else in her daily life who liked the TV show Forever Knight (1992-1996), so when she got online she looked to "see if anyone has ever said anything about Forever Knight on this internet thing" (2012a, p. 6). In using the internet to make social connections, moreover, these fans were part of the process of socialising it, as Nancy Baym (2005) describes: "Our drive to be social and find means of connecting with one another has been a guiding force in the internet's transformation from military and scientific network to staple of everyday life" (p. 175). Fans using the internet in this manner was what built fandom on the internet: while in 2018 the assertion that the internet is for fan fiction is axiomatic, the ubiquity of fan-created content online these days is very much the result of early fans' choices.

After email became more widespread, from roughly 1993-1994 onwards, Usenet coexisted as a discussion platform with the mailing list. Although the term today conjures images of Google Groups, mailing lists in the 1990s were quite different: since the browser didn't exist yet and the size of emails in bytes was extremely limited due to the technical constraints of most users' dial-up connections, only a certain amount of text could be sent in each individual message, and threaded email conversations had not yet been invented. Moreover, mailing lists and the servers to run them cost money, as did internet access, per minute. The advantage to the form, however, was that the owner(s) of a mailing list could control membership and set the rules of the discussion(s) on said list. It was thus the perfect forum for women, already outnumbered on the public internet and subject to harassment for being openly female online, to create private discussion spaces for things that interested them, such as hurt/comfort in Star Trek (Meri Oddities, 2012, p. 14). The first mailing list devoted to slash, Virgule, was one such private group: founded by legendary fan Sandy Herrold (d. 2011), the list was run for women, by women. Since most members initially signed up using work rather than personal email accounts, and the topic of slash was already controversial on the public internet, joining the mailing list eventually required passing a verification process, and members were strictly admonished not to mention the existence of the group anywhere online (Morgan Dawn, 2012, p. 3; Fanlore, "Virgule Mailing List").

The mailing list constituted a distinct era in fandom, one that many of the older fans in our interviews confessed that they still missed 15 years later; one admitted that those days "were my favorite part of fandom" (Arduinna, 2012a, p. 21). The idea that there should be at most one or two mailing lists per fandom, that is, devoted to a particular TV show or other media property, soon became a norm in online fandom. But in practice, female fans online in the 1990s further self-segregated into distinct communities based around the kind of fannish content and discussion they wished to consume and produce: slash or het (same-sex pairings of characters versus oppositesex pairings, the latter of which are vastly more likely to be "canonical," i.e. actually to happen in official media), and gen or erotica ("gen" presumably is short for "general audiences," derived from the MPAA ratings system, as opposed to content depicting sexuality). Many fandoms had several separate mailing lists devoted to what particular

flavour of content their members were interested in, but because each mailing list required its own server, there was a strong social norm of not "splitting the fandom" by attempting to create another list around the same topic. When Arduinna and some of her collaborators "broke the list" and created a competing *The Sentinel* (1996–1999) fandom mailing list in 2000 after an extended conflict about the norms of protecting readers versus authors on the original list, the fandom experienced over a year of conflict in both physical and internet spaces (Arduinna, 2012b, pp. 2–4).

Mailing lists, in fans' recollections, were centralised, hierarchical, and extremely focussed in terms of their discussions: since each list was monomaniacally focussed on a single fandom and often a single type of fannish appreciation, attempting to discuss things that were off-topic was extremely taboo, to the point where people wrote different kinds of fan fiction (i.e. slash or het or gen) under different names (Meri Oddities, 2012, p. 5). In *The Sentinel* fandom, the divides in content on the mailing lists were so strong that fan writers would submit the same story to different lists with different endings (i.e. het vs slash); one fan recalled having to shoehorn a slash subplot into a gen fic she wrote for the movie *Galaxy Quest* (1999) in order to find a place to publish it (Liviapenn, 2012, p. 9). In turn, this self-segregation meant that fans in this era were much more likely to identify as slash fans or het fans or kink fans, rather than just as fans, full stop.

To get around the extreme Balkanisation of this era, in which there were "places for discussing different ships and places for strictly gen discussion and places for not even mentioning fic," female fans would occasionally create spaces for multifandom discussions in the form of secret mailing lists: in Ellen Fremedon's description, "somebody would just start a private list, privately invite a bunch of people and it would be Fight Club...you'd get an invitation and you weren't always supposed to mention it" (2012, p. 10). The flip side of this dynamic was that the act of getting into a new fandom, or leaving an old one, was extremely socially and emotionally charged: Liviapenn (2012) recalled that it seemed like when people changed fandoms, you would never see them again, and "it was like sending half your family out on the Oregon Trail" (p. 17). By the same token, the barriers to finding new fandoms were high: in Liviapenn's phrase, "it was like moving into a new house" because joining a new fandom required not only finding the mailing lists for that fandom, but also sussing out the social norms and discussion rules on those mailing lists before deciding whether one could adjust to them and remain in that particular mailing list or fandom environment (2012, p. 20).

In fan scholar Julie Levin Russo's estimation, the web in the 1990s was a limited space, which influenced fandom and its culture: because the number of people in these spaces remained relatively small until approximately 1999, getting along became a strong norm (Russo, 2012a, 6–7). The notable affection for mailing lists that many fans evinced in our interviews also recalls Nancy Baym's (2009) discussion of internet spaces in terms of "cyberfeminist practice," specifically her assertion that those sites that best exemplified the liberating potential of the internet for women were those that "would orient in part towards meeting the emotional needs of those who engage the site" (p. 130). Inasmuch as the constraints of the mailing lists did enable them to meet their users' specific emotional needs, they should be considered as a milestone

in "cyberfeminism," or more simply in women's online participation. That constraint also enabled strong social bonds among the people on these mailing lists, and the platform enabled them to use these relationships on the internet to augment their daily lives in other ways beyond friendship and social interaction. Specifically, the mailing lists enabled the rise of networks centred around trading physical media that spanned the globe, another way in which fans in the English language sphere became increasingly interconnected.

Along with creating friendships, the experience of the internet was augmented by exchanging VHS tapes, floppy discs, CDs and printouts. Fans traded videocassettes of episodes, which would often contain a few early fan videos recorded onto the end of a tape; they would send each other diskettes full of fan fiction, as well as printouts of discussions over email and the fic that had inspired them (Arduinna, 2012a, pp. 10-13). After Cofax7 joined Usenet, people on the internet sent her "hard copies of material from a recent con," including flyers for zines; by the time she was watching season 3 of Farscape (1999-2003), which had an extremely tortured broadcast schedule in the United States, a friend in the UK who she had originally met through The X-Files (1993-2002) fandom taped the last four episodes for her, converted them from PAL to NTSC, and then mailed them to her in the United States—which was still faster than waiting for the actual American broadcast (2012, pp. 9-10). She also became a node in a Farscape tape transfer network herself as an early adopter of TiVo, which allowed her to record all the episodes before copying them to VHS for distribution (Cofax7, 2012, p. 11).

Henry Jenkins recalled that, while doing the research for the book that became Textual Poachers: Television Fans and Participatory Culture (1992), he attended meetings of a Beauty and the Beast (1991) fan club in the Boston area in which people were printing fiction and discussion posts off Usenet onto dot matrix paper, and then bringing them to the meetings in binders and notebooks, where they were read aloud and served as fodder for discussion even for those who lacked the means or technical capability to go online themselves. Though much was made of a so-called "digital divide" in fandom at the time, and later in society and then the world generally, in the recollection of Jenkins and his wife Cynthia, fans who participated in fandom both on and offline attempted to mediate and bridge the gendered digital divide of early fandom not only by printing things out but also by passing old equipment along to fans who otherwise couldn't have afforded it, and through what Henry Jenkins called "peer to peer mentorship of technical skills" (2012, pp. 27-28, 41). In turn, this informal mentorship created what one of our interviewees called an "Old Girls' Network" which pushed many of its members into technical careers (Coppa, 2012a, pp. 28-29)—directly supporting Baym's (2009) assertion that "cyberfeminism" and its practices "are important because they do not stay online" (p. 130). Fans not only taught each other these skills and gave away hand-me-down equipment; they also taught themselves technical skills for specific purposes, as when Meri Oddities learned HTML so that she could make a fiction archive website because she liked her fiction formatted (2012, pp. 5-6). Arduinna got a home computer specifically so that she wouldn't keep getting "fanfic porn" sent to her work email, accessible only from her computer at the office (Arduinna, 2012a, pp. 6–7).

In the recollection of fans we interviewed, fandom in this era was much more conoriented than it is now: conventions were where fandom happened (Meri Oddities, 2012, p. 17). The rise of fandom online was perceived as a threat to conventions in at least two ways, in the recollection of Henry and Cynthia Jenkins. The first was one of scale; as more and more people got online and joined fandom without passing through the physical arena of conventions, there were increasing concerns from "old guard" fans that the old norms and taboos were being disregarded. (These concerns were also about that same old guard losing control of fandom as a space, which was predicated on their prestige at conventions.) The second was about temporality: whereas conventions were definite events that were bounded in both space and time, discussions online were potentially happening 24/7, with the result that discussions at cons were devalued because those conversations had already been hashed out online (Jenkins & Jenkins, 2012, pp. 32–33). Thus, cons were no longer the primary place where these forms of fannish activity occurred.

All that being said, the internet did not kill conventions; if anything their function as social gatherings became even more important, since they now served to unite fans who were friends online but who had never met in person, or as opportunities for far-flung internet friends to see each other face to face at least once a year in the company of like-minded people. Conventions functioned as ancillary spaces for online fandom in other ways as well: they were still the hubs for physical zine purchases and exchange, and they were also sometimes the forum for other activities supporting online fandom, such as when Sandy Herrold fundraised to pay for the Virgule-L mailing list at Zebracon (Meri Oddities, 2012, p. 15).

Creating and maintaining fandom online

Fandom, specifically the Japan-based doujin fan culture, has previously been identified as a "recursive public" in the sense that it is, in the definition of anthropologist Christopher Kelty, "a public that is vitally concerned with the material and practical maintenance and modification of the technical, legal, practical and conceptual means of its own existence as a public" (Kelty, 2008, p. 3; Leavitt & Horbinski, 2011, 1.6). This self-referential concern with the mechanisms of its own maintenance and transmission is not unique to doujin fan culture; it was evident from the very beginning of the history of Anglophone media fandom online, and did not stop with the technical mentorship that the Jenkinses and fan scholar Francesca Coppa identified. Rather, fans' conscious self-reproduction of fandom extended to fannish production and presence online as well. Coppa recalled being mentored into joining fandom online—not only taught how to get online, but also that fannish activities existed online at all-after she got internet access in grad school in 1994. In contrast to a sense of a new and wondrous world, Coppa experienced joining online fandom as a homecoming: she realised that the internet was now the gathering place for all the nerdy kids from the 1980s, that "they all grew up and now they're congregating here" (2012b, p. 5). As she continued being online, she gradually came to feel that online fandom was a culture in which "the ultimate way of thanking [people for their participation in fandom] was to participate and help make more stuff," so she became a fanfic writer herself (2012b, pp. 5-6). Nor was being a writer the only form of participation: others took up the generally thankless task of constructing the first fanfic archives as their own way of maintaining and paying back the community.

The first generation of fanfic archives were FTP (file transfer protocol) repositories, to which one simply connected and then downloaded whatever was available, with little organisation of the available files and minimal formatting of the text within them (Arduinna, 2012a, pp. 27-28). These clunky and relatively inaccessible archives quickly gave way to webpage-based archives, which were explicitly mailing list-based: for social and technical reasons, websites such as Gossamer, the X-Files fan fiction archive, were tightly linked to the primary fanfic sites in a given fandom—in the case of X-Files, it was alt.tv.xfiles.creative [ATXC], the Usenet discussion forum dedicated to X-Files fan fiction. (X-Files discussion happened on separate, dedicated mailing lists.) Gossamer archivist Deirdre recalled that her purpose in creating and maintaining the archive was not only to encourage the creation of X-Files stories per se, but also to share them with people whose technical specifications would otherwise have prohibited them from reading: America Online [AOL] users could not access Usenet (Deirdre, 2012, pp. 7-8). Others found their way to Usenet due to similar technical constraints: at the time that she recalled really getting into fanfic, Cofax7 was temping at a company that blocked the website Salon, where she was already part of a vibrant discussion board community; the company's blocking software, however, did not prevent her from visiting the Usenet aggregator site Deja News, and from there she was able to access ATXC (2012, pp. 3-4). Other major fandom webpages in this era, such as the Anime Web Turnpike, were essentially aggregators of mailing lists across fandoms (Inkstone, 2012, p. 1).

Archiving became more common as fannish production increased. Inkstone, who identifies as primarily an anime and manga fan, recalled that the Rurouni Kenshin (1996–1998) anime fandom was split into two mailing lists: one for discussion and one for fanfic only, of which she became one of the administrators because she was a friend of the moderator of the main discussion list. At this time in 1997-1998, moderating the fanfic list was a three-person job, since it regularly received as many as 50 emails per day (Inkstone, 2012, pp. 2-3). Nor was this rate of traffic unique: at the height of its popularity in the years 1998-2000, the ATXC mailing list was receiving, in De Kosnik's summary, "between 30 and 50 daily posts on average, with the newsgroup collectively producing over 100 posts on its liveliest days" (De Kosnik, 2016, p. 321). Given these levels of production in popular fandoms, and since one story would regularly be split into multiple emails, archiving fan fiction in a nonmailing list format came to seem increasingly attractive.

The other development that made archiving more common was the rise of the webpage after the invention of the browser in 1993-1994. The technical and financial costs associated with hosting a webpage were still significant, however, and they remained relatively uncommon for several years. Until coder and fan astolat wrote the Automated Archive software package in 1998, fan fiction archives online universally depended on the poorly visible labour of a self-appointed group of people, often called "archive elves," who copied, pasted, formatted, posted and hosted fiction manually on their own particular sites. Although some sites, such as the Star Trek archive

Trekiverse, were explicitly open to all fan fiction in a fandom, many others were dedicated to specific tranches of fic, whether a particular pairing (i.e. Kirk/Spock) or a particular kind of fiction (i.e. kink, slash, het). Still other sites were maintained by individuals who functioned almost as salon hosts: people who had their own webpages, and especially their own domains, tended to have more technical day jobs, and they often wound up managing stables or cliques of fan writers through social network effects. After offering to host the fanfic of a friend or of a writer they liked, for example, that friend or writer would then often ask if another fan of their acquaintance could also use the hosting space, and over time a social group would be created (Coppa, 2012a, pp. 2–3; Cofax7, 2012, p. 21).

The Automated Archive package (specifically, a set of GNU and Perl scripts) changed the calculus around archiving labour; as the name implies, it automated many of the manual text formatting tasks associated with archiving, although it was primarily geared towards formatting stories so that they could be sent out to mailing lists over email. Ironically, the webpage archive copy was often seen as a secondary backup, but as time went on, the stable website archive became the more durable and more easily findable site for fan fiction (Coppa, 2012a, p. 3). Eruthros recalled that fandoms such as Due South (1994-1999) and The Sentinel, which had many archives that were run on the Automated Archive software and were open to all ratings of fic, were more accessible: "part of why I landed in those fandoms is because they had that sort of breadth and diversity, and I could find it" even in the era before Google when searching the web was a guixotic and recondite process (Eruthros, 2012, pp. 9-10; Fanlore, "Automated Archive"). Nor does it seem coincidental that those fandoms in particular became touchstones for slash fandom, as their archives were readily available and those archives' openness to different kinds of content allowed readers to easily learn, for example, what slash was and that they liked it.

Having one's own webpage became increasingly common as the 1990s went on, and the rise of GeoCities, AngelFire and similar sites made it relatively easy for fans to maintain their own basic sites. Many fans who did maintain personal pages in this era of webrings recalled that they did so because, since the guys at Stanford who became Google had not yet begun indexing the internet, having one's own list of links to fanfic was often the most reliable way of finding any given story more than once. Ellen Fremedon's GeoCities page, for example, contained a mixture of links to fic that she didn't want to lose for her own personal use, as well as a more community-minded list of recommended Star Trek fic around a particular theme (2012, p. 6). Meri Oddities recalled that, by the late 1990s, it began to seem that fan fiction was everywhere online, but there was no way to find it: searching for fanfic came to seem like a kind of treasure hunt in which one followed links, hoping to be rewarded at the end of the quest, but which could just as often peter out into a dead end (2012, p. 5). In this regard, the social relationships fostered on mailing lists served to augment the internet in yet another way, as one's fellow fans could annotate and supplement rudimentary search results with their own personal knowledge and links (Arduinna, 2012a, pp. 7–8).

Numerous fans who were active during this era echoed the sentiment that up until about 1999, the online fandom community felt very small, and that mailing lists and Usenet discussions provided a strong centralising infrastructure. Gossamer archivist

Deirdre recalled that in the late 1990s there was "a small enough number of people in fandom online that they couldn't split off and disperse. And so we all had to get together, and we all had to participate" (2012, p. 39) Ironically, at the end of the decade this group of early adopters briefly played the same part that offline fans had played at the beginning of the 1990s in relation to they themselves, when "the wave of people from AOL and GEnie completely swept by" and participation in fandom online surged: the relatively small, cloistered communities of the 1990s internet were swamped by increasing numbers of fans who had no prior familiarity with previous norms and little affinity for established platforms (Meri Oddities, 2012, p. 5). Some people in these communities had viewed the birth of webpages as a problem, for example, in that even sites that were just lists of zines were viewed as "outing" people's fannish activities, always a strong taboo in fandom circles; there had also been resistance to the standard headings imposed by the Automated Archive software (such as fandom, file size, pairing, rating) as being too restrictive and homogenising, and because the package did contain the option for users to export whatever they were archiving to a mailing list (Meri Oddities, 2012, pp. 4-5; Arduinna, 2012b, p. 27).

Starting in 1999, however, the increasing numbers of fans active online and their exponentially increasing creative output overwhelmed all these objections. That year in many ways represented a perfect storm of cultural and technical moments: at the peak of the dot-com boom, AOL was blitzing the United States with CD-ROMs that could be popped into one's computer for easy dial-up setup, complete with email account, and PCs were becoming increasingly common at home. Moreover, 1999 was the year that Star Wars returned to the forefront of pop culture with the release of the first prequel movie, The Phantom Menace, as well as the year that saw the release of the third Harry Potter book in America in September: across the country and around the world, fans of both franchises increasingly turned to the internet for discussion and fan fiction, and as mainstream media took note of the increasing popularity of both, fans who were previously ignorant of the internet were made aware of its existence via media coverage and went online themselves (Starlady, 2012, pp. 9-10; Bookshop, 2012, pp. 6-8). Whereas before fans had benefitted from if not required personal mentorship to learn about fandom online and to join it, this new wave of fans was able to bypass these gatekeepers entirely, forever altering online fandom dynamics.

April 1999 also saw the launch of the blogging platform LiveJournal, one of the trailblazers of today's Web 2.0 era, whose rise heralded what Francesca Coppa, in her interview, called "a move away from a fan-owned, hacker's, primitive internet to a more commercialised internet" (2012a, p. 9). The site reached a tipping point of popularity in online fandom by 2002, by which time, in the words of one fan, it had "killed [mailing lists] dead" (Ellen Fremedon, 2012, p. 11). Though many fans looked back on the mailing list era with great fondness and nostalgia, the shift to LiveJournal at the time was near-total, rapid, and thorough. Its appeal was at least twofold: since users created their own individual accounts on the site, "there weren't any rules for what was off-topic" on those users' own blogs (Ellen Fremdeon, 2012, p. 10). "Part of what fueled everybody moving to LJ was so that you could have a space where you could talk about all the different parts of the fandom and ships that you enjoyed," Ellen Fremedon recalled (2012, p. 10). The site also had a relatively large size limit for posts, which meant that it quickly became an attractive place to post fanfic, especially after the pan-fandom archive fanfiction.net instituted its first purge of NC-17 rated material in 2002 (Ellen Fremedon, 2012, p. 12).

LiveJournal's features as a platform drove what many of the fans we interviewed characterised as the decentralisation of fandom online, but also encouraged the development of a pan-fandom identity centred on the production and consumption of fanfic. In these respects, its surging popularity was also a sign of a generational divide: people who came of age with the internet, as people who participated in online fandom after 1999 were much more likely to be, wanted and expected different things from it than those to whom its advent was a distinct event during their adolescence or adulthood (Baym, 2009, p. 129). Not surprisingly, then, the evolving desires of internet users also drove platform transitions in fandom no less than on the internet at large, a wave that LiveJournal rode to increasing heights of popularity. The site's later tribulations, particularly conflicts over fanfic content, eventually inspired some fans in the 2000s to create what Christopher Kelty called "actually existing alternatives" to the current Web 2.0 model, in which sites make their money by selling information about their users to third-party companies (2008, p. 3).

Conclusion: online platforms and fandom in the 1990s

Writing in response to discussions of websites with notable groups of female users, Nancy Baym (2009) summarises her own previous work on online communities by stating "the structure of the site itself structured its cyberfeminist possibilities and constraints" (p. 128). The interviews we conducted for the Fan Fiction and Internet Memory project support Baym's conclusion; the affordances of internet fans' platforms in the 1990s, their capabilities and quirks, shaped the ways in which fans interacted with one another and the way they conceptualised themselves and their online communities.

At the same time, as Baym (2015) writes more recently, while platforms have effects on the people who use them, so do the people themselves: "Taken as a whole, mediated communication is not a space, it is a set of tools people use to connect, each with meanings that depend on the others and which can only be understood as deeply embedded in and influenced by the daily realities of embodied life" (p. 176). Thus, women entering cyberspace did not immediately foment a revolution. Although female fans made the internet their own as soon as they went online in the late 1980s, they did so at a profound, pre-existing social and technical deficit, at the wrong end of "underlying structures of power that have been designed into technological systems over the course of decades" (Hicks, 2017, p. 238). While women did not lack the technical skills and capabilities necessary to access the internet, they had been driven out of or were never fully integrated into the professions most likely to have internet access, and specifically, email addresses (the military, academia, computing). Thus in this era, many female fans accessed Usenet and mailing lists through corporate email accounts or shared a university email address with their academic spouses, and for the most part they were not able to shape the technical infrastructure of the early internet directly. That foundational inequality, never overcome, directly mirrors today's situation, in which, as Abigail De Kosnik (2016) writes, "Women and queer individuals and collectives occupy minoritarian positions on and in digital networks, although they participate in these networks heavily" (p. 12).

Baym (2009) points out that for any given online space, "a sense of community is emergent and cannot be predicted from previously known factors" (p. 128). In other words, the fact that fans in the 1990s succeeded in creating communities online which interviewees recalled with fondness 15-20 years later is a sign of their successfully shaping the technical platforms of the early internet to fill their social and emotional needs. Mailing lists, the paradigmatic fandom platform of this decade, offered a greater degree of control over discussion and interaction online, and fans who had the means to host mailing lists became some of the gatekeepers of fandom in this era. The distinctive culture of the internet fan communities on the mailing lists was closely entwined with their technical affordances: the fact that mailing lists were hosted on individual servers that cost money to maintain kept them limited, which spurred the norm of having only one or two mailing lists per fandom devoted to specific, non-overlapping types of content and discussion. In turn, this interplay between technical constraints and norms of interaction made it difficult to conduct off-topic discussions or for fans to splinter off into smaller groups; the culture of internet fan communities in this era included a strong ideology of togetherness on the pre-existing terms of the mailing list in question.

Secret mailing lists were the obvious response to these naturalised quirks of internet fan communities. Fans created secret lists not only to conduct discussions outside the parameters of recognised mailing lists (i.e. only including a specific group of people, or discussions that explicitly permitted multi-fandom or off-topic conversations) but also to engage in activities centred around content that inspired scorn from within the general community, whether that was slash, as in the case of the Virgule mailing list, or even more specialised and maligned content such as kink. At least one fan we interviewed recalled that some kinds of fan content such as RPS ("real person slash," i.e. slash fan fiction about actual living people such as celebrities) were so stigmatised that they didn't even have secret mailing lists: those fans became some of LiveJournal's early adopters, as the site did not at that point have any restrictions on its members' declared interests or posted content (Liviapenn, 2012, p. 13).

The first fan fiction archives were outgrowths of mailing lists, and were closely related to them: they reflected the culture of mailing lists in their restrictions on what kind of content they would accept, leading to a situation in which any given fandom might have any number of archives accepting different types of fic, from extremely small micro-sites to large, poorly searchable archives like Trekiverse. Although some fandoms fared better than others in the archive era in terms of their web archives' organisation, completeness, and timeliness, the technical and cultural shortcomings of archives and mailing lists overall fuelled the shift to LiveJournal and the rise of the first pan-fandom archive, fanfiction.net, at the end of the decade.

Taken altogether, the shift to journal sites (LiveJournal was guickly followed by competitor sites using forks of its open source software) as the primary site for fan activities online fostered a unification of fannish experiences that had eluded the mailing list era, when fandom had proceeded on what one fan characterised as parallel tracks, to the extent that fic depicting the same pairing would be posted in completely different places depending on its content (Eruthros, 2012, pp. 8–9). At the same time, however, the increasing dependence of fandom's entire ecosystem on sites like LiveJournal, over whose policies and terms of service fans had zero substantive influence, rendered internet fandom as a subculture increasingly vulnerable to external pressures as its existence and activities became more visible in the 2000s. The deliberately obscure communities of 1990s fandom had sought never to attract such attention or to be so visible at all.

When asked about the reasons underlying her own personal archiving habits, and her archives of her fannish activities online, Julie Levin Russo answered that she found them to be "...a deeper way to communicate between my past self and my present self. And I guess to have a richer perspective on the present, both personally and historically. To be able to see more of the specificities of the way things are now. And to be able to have a nuanced understanding of how I got here. How fandom got here" (2012b, p. 16). Looking for the specificities of 1990s fandom online reveals the ways in which fandom online quickly moved from a fun supplement to the old paradigm of annual conventions to the primary site for many kinds of fan activities, with in-person meet ups and conventions now valuable as places to meet and interact with fans one already knew from the internet, and places to exchange even more physical media such as zines, videocassettes, and more. The primacy of fandom online over fandom offline by the end of the decade laid the foundations for fandom as a whole to explode at the turn of the millennium with the rapid spread of internet access and the personal technology required to take advantage of it. The "age of the geek" heralded in mainstream Anglophone media by the end of the 2000s due to the rise of heretofore niche interests was the eventual result. By 2018, these formerly nerdy interests have become so commonplace as to render the idea of an "age of the geek" questionable in and of itself.

"If there were a single imperative of format theory," communications scholar Jonathan Sterne (2012) writes, "it would be to focus on the stuff beneath, beyond, and behind the boxes our media come in, whether we are talking about portable MP3 players, film projectors, television sets, parcels, mobile phones, or computers" (p. 11). Applying Sterne's concern with structure and format to the internet, what underlay women's participation in fandom online in the 1990s was a doubly gendered legacy of barriers to participation in both fandom and computing: by the 1980s, women had been systematically pushed out of the latter, with coding recast in the male-dominated paradigm of engineering as it became more socially prestigious and financially lucrative from the 1970s onward (Hicks, 2017). At the same time, women's forms of fannish activities were marginalised in science fiction fandom, with they themselves and their interests denigrated by male fans.

Women's establishment of fan communities online in the 1990s is not a simple story of online empowerment; women were barred by discrimination from access to the technical, financial and social privilege which positioned men at the forefront of computer and internet innovation in the 1990s. On the one hand, the fact that female fans were able to leverage the potential of new platforms such as mailing lists to

create communities where they and their interests were validated and could flourish can be interpreted as fulfilling the internet's vaunted democratic potential, in pointed contrast to their marginalised position in male-dominated science fiction fan spaces and to "patterns of underachievement and perceptions of women as less technically competent [that] persist within Anglo-American culture, business, and higher education" (Hicks, 2017, p. 231). But by the turn of the millennium, female-driven fan cultures migrated to sites like LiveJournal and fanfiction.net, for-profit platforms which did not value fans and their content as anything but potential revenue sources. The conflicting imperatives of copyright, propriety, and legality have fuelled conflicts between fans and site owners ever since, with fans at the disadvantage, as they are overwhelmingly likely to "belong to groups that lack the power to participate in the structures of dominance and control that created institutionalised discrimination in a given organisation or industry in the first place" (Hicks, 2017, p. 238).

The expansion of the internet, however, also expanded the scope of fandom far beyond the closed communities female fans had established in the 1990s. Despite those fans' legitimate concerns about potential negative consequences of broader exposure, their communities laid the foundations for the large-scale digital fan production that takes place online today, with authors posting more than 50,000 new works to fanfiction, net per month by 2010 and the fan-run Archive of Our Own containing more than three million works in 2017, its eighth year of existence (De Kosnik, 2016, 337; Archive of Our Own, 2017). No one site today can contain the entirety of fan production, just as no one fan community can claim to speak for all of fandom. But the women who pioneered media fandom on the English-language internet blazed a trail that many people have followed since, and the legacy of their decisions and practices in the 1990s continues to shape the ways in which fans of all genders worldwide participate in fandom, online and off.

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