

Technology tells a tale: digital games and narrative

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ABSTRACT

In this paper, I discuss the debate over digital games and narrative in light of medium theory (also known as media ecology). The communicative environment created by a society's media can favor certain kinds of cultural change. After analyzing the stories (or lack of them) in three very different games, I argue with ludologists that games are not narratives. I believe, however, that the digital medium has encouraged the transformation of what our culture thinks of as a story.

Keywords

Digital games, narrative, ludology, medium theory.

INTRODUCTION

Can we think of games as stories, and if not, what is the proper role of narrative in computer and video games? Scholars trained in literary and film studies often have treated games in the same way as novels and films. In recent years, however, intellectuals associated with the "ludology" perspective have argued that a digital game is *not* a story, and some have even gone so far as to suggest that stories are unwelcome additions to any game. On the surface, at least, these arguments seem typically academic. The game industry continues to pump out products, regardless of what intellectuals decide about the textual nature of games. The various discussions about ludology and narratology, however, have more significance than as a source of design advice for game producers (although they might well be useful in that sense). The debate over games and stories represents a process that many human cultures have gone through: trying to understand the nature and importance of a new and powerful communication medium.

A number of academics, whose work sometimes falls under the label "medium theory," have traced many historical examples of cultures dealing with changes in communication. They argue that different media—such as print, radio or television—are not neutral and have profound effects on how a society thinks and acts. By changing communication, media encourage a re-structuring of cultural cognition, relationships, concepts, and much more. Drawing on this theory, I will argue that because communication media transform the content that comes from other media, they change cultural categories. So rather than say that narratives are alien to digital games, I will argue that this new medium is

transforming what a story is. Computer and video games are not stories themselves, but they are nonetheless modifying the form of narrative.

LUDOLOGY AND NARRATOLOGY

Although the debate over stories in games has carried on for quite some time by those who make games, it has recently found new life in the academic community. Theorists steeped in the lore of literary and cinematic narrative theory—often referred to as “narratology”—have sometimes transported ideas developed from the study of novels and cinema to the new field of games. Many digital game features seem to fit well with the older ideas: games often display plotlines, characters, chronological sequencing and more. In fact, older text-based games—such as *Zork* or the various MUSHs, MUDs and MOOs—look like a novel on a computer screen. The games of the 90s and today frequently also have cinematic cut-scenes which play little movies of dialogue or action without any player control.

In the past few years, however, a number of intellectuals have strongly challenged any easy extension of narratology to digital games. Although this group of theorists is not really a unified school, their perspectives often fall under the label “ludology,” meaning “the study of play” [1]. One of the unifying principles of this fledgling movement is that playing a game—any kind of game—is not primarily a narrative experience. What appears to be the key work of ludological theory is Espen Aarseth’s *Cybertext*. In this ground-breaking book, the Finnish scholar develops—among other things—the category of “ergodic literature,” its key feature being that “nontrivial effort is required to allow the reader to traverse the text” [2]. The media around which most narrative theory is built, such as novels and films, only need the reader to engage the “interpretative user function”: the novel reader or film watcher tries to make sense of (or interpret) a book or film. An ergodic text also requires the interpretative user function, but its distinguishing feature is that it invites other kinds of user functions: configurative, textonic or explorative. All of these describe different manners in which the ergodic reader or participant manipulates or influences the text with which he or she interacts.¹

Ludologists seem to be happy to apply the concept of ergodic literature (if not always the term itself) to digital games. They identify configurative interactivity as something that sets games apart from the print and film texts narratologists study. In other words, they see interactive or configurative behavior as fundamentally different from what a narrative text requires. More than one writer has argued that a person can tell a story *about* a game, but this is not the same as actually experiencing a game *as* a story. Several ludology theorists cite *Tetris* or other simple “twitch” or puzzle games as examples. Playing them can be compelling and addictive, but what kind of narrative can we find in them? A better analysis, ludologists argue, would focus on the actual configurative aspects of the text—the “gameplay,” a catch-all term frequently used by both academics and industry workers.

This is not to say that ludologists do not see the presence of narratives or narrative elements in digital games. Clearly, a game like *Escape from Monkey*

¹ It is important to note that Aarseth argues that ergodic texts can exist in non-digital media such as print.

Island (discussed below), has a story that plays a central and necessary role. The current use of narratives in games, however, provokes a variety of ludological responses. On the one hand, some writers are really only irritated with literary scholars' insistence of fitting games into a narratological box. For example, Gonzalo Frasca stresses in a number of writings that he does not see stories as completely alien to the medium [3]. Rather, he argues, the play of games is simply their more important feature, and narrative analysis is almost certainly going to lead to the same dead-ends he (and others) encountered years ago. At the other extreme is Markku Eskelinen, who sees narrative as a foreign add-on to games: "stories are just uninteresting ornaments or gift-wrappings to games, and laying any emphasis on studying these kinds of marketing tools is just a waste of time and energy. It's no wonder gaming mechanisms are suffering from slow or even lethargic states of development, as they are constantly and intentionally confused with narrative or dramatic or cinematic mechanisms." [4]

The more extreme ludological positions have drawn fire from a variety of scholars. Rune Klevjer, for example, argues that narrative can be a critically important part of gameplay [5]. He focuses on how cut-scenes can enhance or direct the experience of the player by providing direction, operating as a "planning tool," helping to pace the game, or heightening emotional involvement. Henry Jenkins has also criticized extreme ludology as missing the role and value of narrative in digital games [6]. Although sympathetic to the goal of treating digital games as a unique medium, he argues that for a balanced approach: "examining games less as stories than as spaces ripe with narrative possibility." He believes that the ludological critique of narratology rests, among other things, on "too narrow a model of narrative" that is very much influenced by novels and film. He also argues that ludologists demonstrate a lack of appreciation for digital games' connections with other media in an age where producers carefully construct material in one medium to fit with material from others. Jenkins suggests that we need to look at what changes the new medium opens up.

TECHNOLOGY AND COMMUNICATION

One place to start considering these changes is the literature on media technology. Although various thinkers have considered the connection between communication and technology for a long time [7], a concerted body of theory examining this connection is relatively new. In the early 1950s, Canadian economist Harold Innis published two books about media, *Empire and Communications* and *The Bias of Communication*, that introduced a series of ideas which were further reinforced and elaborated by a set of publications in the early 1960s [8]. Although Innis had relatively little direct influence on Marshall McLuhan, Eric Havelock and Jack Goody, the works of all these writers have formed the foundation of a body of theory known today either as "medium theory" or "media ecology." Perhaps the most pithy and extreme summary of this perspective is McLuhan's famous (or infamous) line: "the medium is the message." Whether it be the authors already mentioned, or the later writers in this tradition, such as Neil Postman, Walter Ong or Joshua Meyrowitz, the central idea holding medium theory together is that the structure of a medium has a profound impact on a society's communication. By extension, these theorists argue that all facets of culture and cognition are shaped or even determined by the tools we use to talk.

McLuhan, a controversial visionary, is the most well-known of these writers, and is often taken as the representative of medium theory. He also tends to take the most extreme positions. The printing press made us linear thinkers, he argues, while radio and television have turned back the clock to an electronic orality that is creating a village-like culture on a global scale [9]. He characterizes media as hot or cool, and argues that each medium realigns the balance of the senses. Many of these ideas are interesting and thought-provoking, which is precisely what McLuhan intended (he thought of his work as “probes”). The trouble is, a careful analysis of many of his claims shows them to be bunk: either grossly over-exaggerated, nonsensical, or sometimes just flat-out wrong.

Many other medium theorists, however, pursuing a more traditional and less flashy style of scholarship have produced some relatively detailed work on the role of communication technology in society. Some deal with ancient culture. A good example is Eric Havelock’s *The Muse Learns to Write* which examines the Greek transition from oral speech to the written word [10]. Among numerous other insights, this classicist points out that prior to the popularization of writing, purely abstract thought, such as the philosophy of Plato and Aristotle was practically impossible: in oral culture the spoken word is not recordable, making it impossible to scrutinize carefully worded propositions. Other medium theorists consider more contemporary media. A prominent example is Neil Postman’s *Amusing Ourselves to Death* [11]. This book argues that the flickering images of television tend to bias the medium towards entertainment, meaning that intentionally or not, our society is demeaning any kind of discourse that deserves serious and intelligent attention.

What holds true throughout this diverse body of writing is the idea that communication media have an enormous impact on the way we communicate and how we think about culture. Specific technological features, such as the rigidly uniform textual reproduction of the printing press, or institutional features, such as the advertiser-supported industry that delivers broadcast television, encourage or enable certain kinds of communication and discourage or disable others. In favoring one kind of communication and not another—such as writing allowing for abstract thought or television turning everything into entertainment—a change in media leads to a change in culture.² An additional insight that most medium theorists share is that an old-media culture does not usually vanish in a new-media environment, and if it does so, it usually fades gradually. More often than not, the cultural attitudes and thought-patterns fostered by the older forms of communication take on a new shape in the contemporary environment. The radio serial drama did not exactly disappear in 1950s America—rather, it transitioned into the television serial drama. Of course, it did not stay the same, either. I believe the same thing is happening with narratives in today’s media shift.

So what kind of technological features might be important for the consideration of digital games? A number of writers have described what they see as the crucial characteristics of computerized communication. Here I present four that I find to be particularly relevant—but clearly more could be added to the list.

² The specter of technological determinism constantly haunts medium theory. The best writers, however, can be considered “soft” technological determinists, in that they believe that machines “bias” rather than outright determine cultural development.

Interestingly, although they all write with different agendas and attitudes, many of their observations about the computer are strikingly similar. In 1984, J. David Bolter published the prescient *Turing's Man*, which discusses the impact of personal computers on Western culture [12]. He continually returns to two key characteristics of the computer: that it is a machine that relies on abstraction, yet it is completely finite in its operation and scope because it requires completely defined procedures and data.

Janet Murray's *Hamlet on the Holodeck*, a much more recent work, focuses on computerized stories [13]. In discussing "digital environments," the term she uses to describe the textual spaces created by computers, she too lists a series of technological features that impact communication. First, she argues that digital environments are procedural, by which she means they are governed by rules. Next she argues that the medium is participatory, meaning it is "responsive to our input." Third, she believes that digital environments are spatial or that they "represent navigable space." And finally, she argues that computerized communication is encyclopedic, in that it can contain compendious amounts of information.

Lev Manovich, in *The Language of New Media*, puts together a slightly different list of digital communication characteristics. First, he argues that all digital communication objects are quantifiable, or reducible to numbers. Second, he describes these objects as modular, independent items that can be combined and re-combined, yet still retain their individual identity. Third, he claims that a large portion of digital communication is automated, meaning "human intentionality can be removed from the creative process, at least in part." [14]. Fourth, he draws attention to the variability, or repurpose-able nature of computerized communication: the same item can be used by many different applications for different purposes and results.

A final example comes from *The Art of Interactive Design*, by Chris Crawford. In this book, he justifies his vision for computer interactivity by describing the computer as a machine that can speak, listen and think (not in that order) [15]. The computer's way of doing these activities, however, is significantly different from the human manner. It speaks with audio and visual displays, doling out information that is precisely measurable by its pixel count, color depth, frame rate and sound output. It listens via strictly definable inputs from the mouse and the keyboard (for the most part). Finally, its thinking can be entirely broken down into a series of Boolean logic statements (AND, OR, NOT). Crawford presents computer "thought" as a set of procedures that manipulate data that the user supplies it.

We can see a number of similar observations running between these descriptions of computerized communication. First, digital material—or data—is clearly definable, quantifiable, finite stuff. A file has definite boundaries and is, in theory, completely predictable and controllable—although of course, in practice, it can get so complex that it defies manageability. Once it is created or recorded, we can inspect these computer media objects however we like. Second, computer thought or processing is governed by logical procedures that, once again, are perfectly defined, finite and theoretically completely predictable. Finally, two of the authors note the computer's ability to allow the user to interact or participate with it. Murray's "participation" and Crawford's "interactivity" are different ideas in

important ways, but they do have something in common: the computer invites the user to provide input that guides its output.

NARRATIVES IN THREE VERY DIFFERENT GAMES

I want to consider what kind of form narrative can take in digital games by taking a short look at three very different examples. I will start with a game that has a clear story: *Escape from Monkey Island* by LucasArts. This is the fourth in a series of adventure games, an old game genre that allows the player to navigate a fantasy space and solve puzzles, usually developing or unfolding a story in the process. Set in an imaginary, Caribbean-like world (beautifully rendered in 3D graphics) full of pirates and deserted islands, the player controls the movement and actions of hapless-but-lovable Guybrush Threepwood as he attempts to discover and thwart the nefarious plans of commercial developer Ozzie Mandrill and his accomplice, the notorious undead zombie pirate LeChuck. Actual gameplay consists of guiding Guybrush through various game locations, talking to the different characters, finding and picking up objects and performing tasks that will solve the puzzles that continually arise. A series of chapters frame the segments of the game: once the player has performed the requisite set of tasks and conversations, the game plays a cut-scene and then enters a new chapter with a new set of tasks and puzzles. Within each chapter, however, Guybrush is free to move between any area available at that point, and talk with whomever the player wants, and perform whatever tasks or solve puzzles in whatever order the player desires. The overall tone is humorous, with numerous conversations that play out like scenes from a sitcom, many of which make little or no contribution to solving puzzles and finishing the game.

Escape from Monkey Island clearly has many elements of a traditional popular oral, literary, cinematic or televisual narrative. It has characters and a clash between a protagonist (with his allies) and his antagonists, a conflict that escalates to a climax and then gets resolved. It has a timeline of events or plot points that the game presents as belonging to chapters. *Escape from Monkey Island* also relies heavily on a set of stock characters from popular narratives: the mysterious voodoo prophetess, the evil old heartless capitalist Scrooge-type, the airheaded receptionist, etc. For all these similarities, however, the game changes the narrative experience as well.

Perhaps the most obvious is its handling of time. Narratologists argue that literary and filmic stories display two levels of time: an external level, that of the Discourse or recit or syuzhet, which is really the level of how the user interacts with the actual text; and the internal level, that of the Story or histoire or fabula, is the timeline of events within the story world. So, for example, at the level of the Discourse of the novel, the reader may first learn about the hero arriving at the hotel, then about him putting his baggage in his room, and then about his memory of his horrible experience in the war. On the internal time-scale of the Story, however, the reader constructs a timeline that puts the war experience first, then his arrival and moving into the hotel. For *most* of *Escape from Monkey Island*, however, the experience of external and internal time is pretty much simultaneous. In other words, the timeline of the story generally unfolds at the same time as the player actually experiences it [16]. The game contains a few important exceptions to this pattern, such as a few key (non-interactive) flashbacks or moments where a

cinematic transition indicates that time has passed in the middle of some boring task. In addition, much of the humor of the game relies on references to the prequels. Generally, however, the game story is similar to a novel written entirely in the present tense with no mention of the past before the story begins.

Of course, another major difference between *Monkey Island's* story and that found in most novels, films or TV shows is the feature identified by Aarseth: the reader's interaction with it. The work of a film viewer is usually exclusively interpretative: making sense of the symbols and communicative conventions he or she watches. Although clearly a game player interprets the information on the computer monitor, he or she also configures it. When the player uses the computer input mechanisms in the correct manner, Guybrush walks around, picks up items, talks to other characters, not in some pre-determined fashion, but in response to player commands. He can investigate, poke, play with and throw away a wide array of objects and spaces, whether they are central or incidental to the plot. The experience is almost like being able to stop a movie and explore the set. The story unfolds because of the actions of the player—it is almost the equivalent of a book reader writing the narrative at the same time as reading it.

If this was a simple push-a-button-and-the-story-will-advance kind of operation, then the novelty of the situation would be questionable. The game *does* have certain boundaries: not all areas are available at all times, for example, and conversations are carried on by selections from a limited menu of dialogue options. The objects are not changeable, except in ways anticipated by the game designers. The player cannot, for example, change the color of the duck, even if he or she wanted—it is clearly defined as an item and it has no procedure for allowing the player to change it. In addition, the plot points are not alterable: this is not a game with multiple endings. In other words, within a chapter, the player might be able to wander around and solve puzzles in whatever order he or she wants, but all of the puzzles must be complete before the next chapter can start. In this way, the player unveils the plot rather than creates it.

However, within these constraints, the player can move and do whatever he or she wants, and can ignore many options. No traditional story-telling medium allows for this user-determinable story order (although other new media, such as hypertext do, as is well-noted). Because of this admittedly limited freedom of choice, however, the actual unfolding of the plot is significantly less tight and well-organized than we would experience in a novel or film. The game can involve a great deal of back-tracking, repeated conversations and other behaviors that are necessary to solve puzzles, but are inefficient for story-telling by the standards of a novel or movie.

It would be worthwhile to consider a significantly different kind of game narrative to see if it displays similarities. *Europa Universalis* is a distinguished representative of the long tradition of "god-games," which usually allow its players opportunities to exercise huge powers on a vast scale. This particular game is a real-time (meaning the game-time runs continuously) historical simulation that allows the player to guide and experience one nation's part in the European geopolitical adventure of worldwide conquest and economic domination from 1492 through 1789. The player chooses a country—say, England—and then works on upgrading infrastructures, improving technology, buying troops and ships, exploring uncharted wilderness (and dealing none-too-humanely with

inconvenient natives), founding colonies and, of course, going to war with neighbors. The complex game system attempts to give a reasonable simulation of certain aspects of the actual historical experience of nations. Depending on the scenario chosen, the game continues until one of the competing nations reaches a requisite number of victory points (gained by being successful at the above tasks) or the time scale hits a certain year.

Although this game demonstrates *some* features of a traditional narrative, these are much harder to identify than they are in the *Monkey Island* game. It has a beginning and an end, with a running timeline of causally-linked events between them—although as I explain below, this is quite different from traditional narrative style. In other words, it has an exceptionally skeletal plot. It also presents a sense of conflict via the immediate establishment of a goal (be at the top of the heap when the game finishes). In addition, the game has a protagonist and antagonists in the form of nations, but it does not have personal characters.³ Perhaps the most narrative aspect of the game is the voluminous historical documentation it provides about famous events and people that the player can encounter. These little (though often quite lengthy) windows of text have no gameplay function, but if the player wishes, he or she can equate or connect his or her actions with actual historical ones. So a kind of *sense* of narrative hangs around the game: the player is coming from somewhere in time and is going somewhere in time, overcoming obstacles all the while—and perhaps the player has a sense of playing out the grand narrative of European history, although this is not required. That is about as close as it gets to a more traditional notion of story.

Europa Universalis has no characters with personalities—stock or otherwise. It has no division between external and internal time. It has virtually no dialogue, unless the various proclamations and announcement count as a kind of one-sided verbal conversation between player and game. It is even more configurative than the first game. Quite simply, the story is *not* the focus of the game, like one could argue is the case with *Escape from Monkey Island*. The center of the experience of *Europa Universalis* is the balancing of resources, the decisions about aggression and exploration, the maintenance of relationships with other nations, and so on. If the game is “about” anything: it is about discovering and then working a system to produce the desired results. This, I think, is precisely what so many ludologists are arguing: that the focus of digital games is not stories, but playing or interacting with systems of rules.

The final game I will look at here is the popular puzzle game *Bejeweled*. This is a simple game that can run on a web browser and requires only a little investment of time to learn and play—although many have learned that it tends to invite rather long playing sessions! The player manipulates a screen full of a grid of gems that come in seven varieties. The gameplay is simple: switch gems in such a way that you line up rows of three, four or five of the same kind. When this occurs, the lines vanish, the grid shifts down to fill the space, and a random set of new gems come in at the top. Catchy electronic music plays in the background

³The game does list historical monarchs as the rulers of the nations (they die and get replaced in the appropriate years), but in the game itself, they only represent a numerical set of leadership skill.

while the player either proceeds at his or her leisure, or races against a timer to achieve the next level of points before the game ends.

Narrative analysis of this game is fairly straightforward: it does not really have any story. Yes, it has a beginning and end as well as a progression of events, but these are the only narrative elements it contains. It has no characters, no conflict arising from characters, and no construction of a timeline of the events that occur. If we are to call this a narrative, then the word ceases to have any useful meaning—even water going from a tap down a drain becomes a story. We can certainly *re-tell* the events as a narrative: say, give the gems names, create some kind of imaginary conflict or make the whole process into a metaphor for something else (which is what Murray does with Tetris [17]). But we do not experience an unfolding story while playing the game—certainly not like we do in *Monkey Island*, or even *Europa Universalis*.

Can we generalize about the role of narrative in all three of these games? I would say no. Each one has a game system—a structure of objects and rules that a player engages for entertainment. But each does not have a story to tell. What the comparison does tell us is that games have a range of narrative possibilities. They may have not a trace of it, as is the case with *Bejeweled*. On the other hand, a game such as *Monkey Island* may have practically everything we associate with a story: a plot of causally-linked events, a set of characters including protagonists and antagonists, and a dramatic set of conflicts that culminates in a climax and end in a resolution, among other things. Finally, a large number of games probably fall somewhere in between these two extremes. So what does this tell us about the way the digital game environment and narratives?

CONCLUSION

In the first issue of the *Game Studies* journal, Jesper Juul makes a good case for the difference of games and narratives: they have many similarities, he argues, but “games and stories actually do not translate to each other in the way that novels and movies do.” [18] I think he is absolutely right: *Escape from Monkey Island* the blockbuster movie and *Escape from Monkey Island* the best-selling novel would be much more like each other than they would be like the game. I agree with many of his observations: games have a different way of handling time and they have a different way of engaging the player than a book does its reader or a film its viewer. I also agree with ludologists that to attribute narrative to games like *Bejeweled* or *Tetris*—as Janet Murray does—makes the concept of narrative somewhat useless. A game is not a story. But does this mean that games can never *have* stories, or even have stories that are necessary for the game to work?

I think this line of argument only makes sense if you assume that narratives do not change. We are very accustomed to stories being delivered by book, film and television. But of course, originally stories were told exclusively in oral cultures. When writing and printing appeared what counted as a story changed significantly. Stories became longer and switched from being exclusively poetry to (eventually) mostly prose. Because of the difficulty of memorizing before writing arrived, poetry was necessary to keep cultural materials alive. As far as historians can tell, oral cultures did not think of a story as anything other than a poem: it was writing (and especially printing) that made this much more likely [19]. Motion

pictures and radio made different kinds of changes again to what counted as a story. Each new medium changed both the structure and appearance of narrative.

The stories that are in games are not the same as a book or a film. How can we describe the new narrative? Jenkins suggestion, cited above, of “environmental story-telling,” gets at one aspect of the new story. The defined, tangible nature of computer data and procedures means that game makers construct spaces that players can explore, in which players can make stories. Of course, the flipside of that defined, tangible nature is that game narratives are also *limited*. I would say that game stories are *systematic* narratives. The player can only work with the objects and procedures as they have been designed by the game maker. The oral story-teller or writer has, in a sense, the infinite possibilities of language that allow them to make strange and associative turns that the procedural computer game cannot do. The best programming can produce an infinite number of results, but only according to the laws that run the machine’s system. Humans, on the other hand, can re-write the laws as they go.

Another change in narrative is the factor of user input. Crawford argues that games do not have *interactive* stories—at least not in the sense that he defines interactivity, and I would tend to agree with him. In *The Art of Interactive Design*, he describes the imaginary scene of a grandpa telling a story to his grand-daughter, who keeps interrupting and re-directing the plot. The responsiveness in the tale-teller (the fact that he listens, thinks and then alters his speaking based on his thinking) makes the story-telling process interactive. *Monkey Island*, the most narrative of the games inspected here, is not, by those standards, interactive: the plot points are set in advance and the player simply has to discover them. Yet my input as a player matters, or it feels like it does. Maybe we should use Murray’s term and call digital game narratives *participatory* stories. Rather than the image of the grandpa and child, we could imagine a story-teller who gets his or her audience to get involved in the story being told. The story-teller calls for the audience to shout out when the villain appears, or yell out the predictable, rhythmic lines of the story at certain points of the plot. The listeners do not really *change* the story—or maybe they only influence it a little—but they *do* participate, creating a different sort of narrative.

This user input also relates to *Monkey Island’s* handling of time (noted above). As Juul points out, the kind of participation demanded by a digital game (he talks about interaction, but I think the point still holds) means that the digital game story cannot use time the same way as a book or a film. In a sense, we are telling the story as it happens. I do not think this means that the game cannot have a story—rather, we are seeing a different kind of story, one that re-writes the temporal concepts crafted by narratologists who have focused on print and cinema. The digital game story is *immediate*, in the sense that we experience no separation between the telling and the events.

The ideas of systematic, participatory and immediate narratives are only suggestions that may need to be refined or jettisoned on closer inspection. The overall point is more important, however: our communication environment modifies our cultural categories, and digital games likewise re-shape how we think and relate to each other, simply by the kinds of communication they discourage and the possibilities they open up.

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