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RE-THINKING VIRTUAL AND PHYSICAL SPACE THROUGH MOBILE TECHNOLOGIES IN WILLIAM GIBSON'S THE PERIPHERAL

Abstract: This article sheds light on the ways in which the relationship between virtual and physical space is reconceptualized in the post-digital era within the context of mobile communication technologies and ubiquitous computing in William Gibson's novel The Peripheral (2014). Important theoretical discussions took place in the 2010s with regard to how the virtual and the physical space are perceived compared to theories of the 1980s and 1990s. As a result, theories that viewed virtual reality as a parallel space are reconfigured by contemporary theorists, such as Jason Farman, Hidenori Tomita, Adrianna de Souza e Silva and Daniel M. Sutko, all of whom, in studying contemporary mobile media technologies, emphasize the hybridity and materiality of virtual space. According to these theorists, since new mobile media (communication) technologies permit different and complex spatial configurations, virtual space should be considered as being part and not separate from external reality. The value of the present article lies in the attempt to view these theories in relation to The Peripheral, a text that was written amidst all these shifts in mobile media technological developments and spatial convergences. In his first novel, Neuromancer (1984), William Gibson opened up literary writing to the envisioning of electronic technologies and a number of previously unprecedented notions, such as "cyberspace" and "virtual reality." Three decades after the publication of Neuromancer, Gibson attempts once again to anticipate, capture and articulate in literary terms the cultural and technological changes of his time. By inventing the term "virtually physical" so as to describe the afore-mentioned spatial configurations and their effects on the human body, the author merges the virtual and the physical, while also taking the exploration of the interconnection of the two spaces a step further in an effort to examine the possibility of totally effacing the differences between them. Gibson promotes the equation of the virtual and the physical space, considering virtual space to be an actual space (on the basis, for example, of de Souza e Silva and Sutko's terminology). The article explores not only how Gibson's narrative enables readers to visualize through language how smartphone technology reconfigures our sense of virtuality, spatiality and embodied location, but also how the author manages to encapsulate through literary practice the latest cultural shifts in the development and evolution of the field of mobile (screen-based) technologies.

Keywords: virtual and physical space, mobile communication technologies, literature, cyberpunk, ubiquitous computing, telepresence, embodiment

Important theoretical discussions took place in the 2010s with regard to how the virtual and the physical space are perceived compared to theories of the 1980s and 1990s. The concept of virtual reality as a parallel space is reconfigured by contemporary theorists, such as Jason Farman, Hidenori Tomita, Adrianna de Souza e Silva and Daniel Sutko, all of whom, in studying contemporary mobile and/or locative media technologies, perceive virtuality in novel ways, placing emphasis on the materiality of mobile technologies, and virtual space in particular. According to these theorists, since new mobile media (communication) technologies permit different and more complex spatial configurations than early computer technologies, virtual space should be considered as potentially being part and not an essentially separate sphere from external reality. The value of the present chapter lies in the attempt to view these recent theories in relation to William Gibson's The Peripheral, a text that was written amidst all these shifts in mobile media technological developments and spatial convergences. In his first novel, Neuromancer (1984), William Gibson opened up literary writing to the envisioning of electronic technologies and a number of previously unprecedented notions, such as "cyberspace" and "virtual reality." Three decades after the publication of Neuromancer, Gibson attempts once again to anticipate, capture and articulate in literary terms the cultural and technological changes of his time, placing them within the context of ubiquitous computing. By inventing the term "virtually physical," in *The Peripheral* Gibson merges the virtual and the physical, while also taking the exploration of the interconnection of these two spaces a step further in an effort to examine the possibility of totally effacing the differences between them. By paying attention to how Gibson utilizes language in the two novels, I intend to examine the ways in which the relationship between virtual and physical space is redefined in the post-digital era within the context of mobile communication technologies and ubiquitous computing. Drawing parallels between Neuromancer and The Peripheral, I am interested in demonstrating how mobile technologies of telepresence and ubiquitous computing in The Peripheral reconfigure our perceptions of the real and the virtual.

Interestingly, while this shift regarding the relationship between the physical and the virtual is even more pronounced in the 2010s, such theories actually date back in the late 1990s and 2000s. In *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature and Informatics*, N. Katherine Hayles, whose work is going to commented on further down in more detail, is one of the first critics noticing the blurring of the boundaries between digital and physical space; Hayles questions "materiality" and "information" as binary opposites, emphasizing instead the inseparability of digital information from material interfaces (Hayles 1999, pp. 12, 13). A few years later, de Souza e Silva, in her article "From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces", further stresses this blurring as a result of the emergence of locative media technologies and hybrid spaces that are both digital and physical. Indeed, the author draws attention to the shift "from cyber spaces to hybrid spaces," concluding her paper with the realization that "the digital has never actually been

separated from the physical, and can be an essential element for promoting sociability and communication in urban spaces" (de Souza e Silva 2006, p. 27). As I will attempt to prove, *The Peripheral* highlights a renewed interest in these approaches to the relationship between the virtual and the physical space in the 2010s. Before I proceed to the analysis of the novel, I will briefly call attention first to its plot.

The novel contains science fiction elements, depicting two future narratives that mysteriously intersect. The main character of the first storyline, Flynne Fisher, who lives in the rural American South in the 2030s, time-travels to dystopian future London via a "peripheral" telepresence technology by inhabiting an artificial android body avatar. There she meets Wilf Netherton, the protagonist of the second future reality, and the two align to investigate a murder.

First of all, with peripheral technology Gibson portrays a form of telepresence that is actualized via the smartphone and involves a certain kind of disembodiment. In fact, Flynne's organic body disconnects from its location, entering "an induced version of sleep paralysis" (Gibson 2014, p. 173), as Macon, another character, reveals in the narrative. The narrative places emphasis on the material aspect of this procedure. The author calls attention first to the technological equipment that is used for the disconnection. Here, Flynne's phone is connected via cables to a special crown-looking device that has been placed on her forehead, which has already been spread with "saline paste" (p. 174). Secondly, Flynne's transference to the telepresent future space is described in both spatio-visual and material terms as the narrative reveals, depicting Flynne counting down to zero so as to disconnect her body: "Twelve. Eleven. Ten.' Pop. That color like Burton's haptics scar, but she could taste it inside her teeth. [...] 'Two. One. Zero.' She opened her eyes. A flat ceiling sprang away, polished, six feet higher than the one in the trailer, as the room reversed, was backward, was other, weight of the crown gone, her stomach upside down. A woman's eyes, close, weirdly blurred" (p. 175). Interestingly, while Flynne is being transferred from the trailer room to another room in the future via telepresence, emphasis is placed on the visual and kinetic aspect of her experience, even though her body actually remains static. This kind of mobility and visuality is revealed by the use of words and phrases, like "color," "[a] flat ceiling sprang away," "the room reversed" and "weirdly blurred." However, Flynne's disembodiment is also presented synaesthetically¹ and corporeally. Indeed, not only was "her stomach upside down," but she could paradoxically taste the color she was seeing. Additionally, the narrative combines mobile with sonic perceptual elements, since the word "[p]op" in the above excerpt seems to be a verbal sound corresponding to what Macon has described to Flynne as "a wobble" (p. 174) that accompanies her transference to the telepresent space.

¹ While Anna McFarlane also describes Flynne's first "connection to the peripheral [as a] synesthetic experience," emphasizing "[t]he combination of colour (sight) and taste" (McFarlane 2016, p. 125), I draw attention to Flynne's full corporeal experience of telepresent space, referring to its kinetic and sonic aspects as well.

Interestingly enough, this kind of transference is reminiscent of characters entering cyberspace in Gibson's first novel, *Neuromancer*. In fact, Case's transference to cyberspace is also characterized by constant motion and visuality, as is revealed by the description of his passage from reality into cyberspace for the first time:

He closed his eyes. Found the ridged face of the power stud. And in the bloodlit dark behind his eyes, silver phosphenes boiling in from the edge of space, hypnotic images jerking past like film compiled from random frames. Symbols, figures, faces, a blurred, fragmented mandala of visual information. Please, he prayed, *now*—A gray disk, the color of Chiba sky. [...] Disk beginning to rotate, becoming a sphere of paler gray. Expanding—And flowered, flowered for him, fluid neon origami trick. (Gibson 1984, p. 52)

Like Flynne in *The Peripheral*, the protagonist here is also confronted with "visual information" while entering cyberspace, while the phrase "fluid neon origami trick" and the words "rotate," "faster" and "flowered" create a sensation of flux, fluidity and movement. Thus, cyberspace permits a certain kind of kinetic liberation. Nevertheless, in contrast with Flynne as will be shown further down, Case enters a new spatial dimension that is separate from physical reality: Case acquires a new existence characterized by cybernetic disembodiment, which is underlined in the novel by the fact that he "lived for the bodiless exultation of cyberspace" as well as that he "projected his disembodied consciousness into the concensual hallucination that was the matrix" (Gibson 2014, pp. 6, 5). It appears then that cyberpunk characters abandon their material body in the real world to inhabit the immaterial virtual space of the computer, something that is evident in Gibson's other cyberpunk works of the 1980s as well.²

With *The Peripheral* Gibson significantly departs from this cyberpunk model of cybernetic disembodiment. In fact, mobile technologies offer a different visualization of the ways in which transference to another reality can be perceived. Although Flynne is disembodied, as shown earlier, she does not inhabit the bodiless informational realm of a cybernetic environment, as is the case in cyberpunk texts. Rather, her virtual self is immediately re-embodied in a material "[t]elepresent interface" (Gibson 2014, p. 166). The smartphone allows her to inhabit a future version of reality by controlling a "[k]ind of robot body" (p. 191), which is called "peripheral." That is, she embodies a new artificial android construct, or, to use a character's words who describes this process in the narrative, "[a] telepresence avatar" that "[Flynne] needn't consciously control" (p. 175). In other words, Flynne starts "accessing input from an anthropomorphic drone" (p. 175) that "you don't have to think about operat-

² Similarly, in one of William Gibson's short stories, "The Winter Market," while the female protagonist's physical body is totally devastated and contaminated, in the end she manages to transfer her consciousness into a computer-generated environment. That is to say, she enters an alternative reality, where she acquires a virtual body by abandoning her material status, which is not the case in *The Peripheral*, where characters do not abandon the materiality of their corporeal existence, but telepresently control a drone-body through their mobile phone, as will be shown further down in this paper.

ing it" because the "[t]hing on your head, in the trailer [...] call[ed] a neural cutout[,] [k]eeps your body from responding when you do something with the peripheral" (p. 191). What Flynne describes here is her ability to paradoxically be present in two places at the same time, an idea that originates from the fact that "cell phones [have always] allowed people to inhabit two places at the same time: their own physical space and the remote place of the other speaking person" (de Souza e Silva, Sutko 2011, p. 25). However, Flynne's ability here indicates that mobile telepresence also offers her the "capacity for ontic dispersion beyond the neat physical limits of the body," as Ingrid Richardson would argue ("Mobile Technosoma"). In this sense, Flynne's peripheral body can be regarded as an extension of her senses, a fact that is revealed by its very name. Indeed, when Janice asks Flynne, "[w]hy do they call them that, 'peripherals'?" (Gibson 2014, p. 185), she answers "[b]ecause they're extensions? Like accessories?" (p. 185). The fact that this is a question and not an affirmative statement verifies the indeterminacy and liminality of Flynne's identity when she enters telepresent space, as she possesses both an organic static body and a mobile mechanical telepresent body. The following excerpt describing Flynne's process of embodying the peripheral for the first time constitutes another striking example of the way her senses are extended to another body:

[Flynne] didn't remember sitting up but then she saw her own hands and they weren't. Hers. [...] Flynne raised her hand, touched her face, not thinking. [...] Again, with both hands. Like touching herself through something that wasn't quite there. [...] "This is a...machine?" She touched...someone. Stomach. Breasts. She looked in the mirror. [...] "That's got to be somebody," she said. "Yes," said Ash, "though we don't know who. [...] Flynne touched the steel. Someone else's hand. Her hand. "I can feel that." [...] Ash [put] her hand on Flynne's shoulder. [...] Her hand, thought Flynne, but whose shoulder? [...] "Can you smell the flowers?" Flynne nodded. (pp. 177-178)

The verbs "looked," "feel" and "smell" and the repetition of the verb "touched" that appear in the excerpt above underline Flynne's synesthetic experience of telepresent space. Flynne is actually struggling to accept the idea of possessing a new body and inhabiting a new environment; this attempt is illustrated in the above quote by her difficulty, first, to realize that the peripheral's hand is her own hand and, secondly, to distinguish this from Ash's hand. Interestingly, the constant repetition of the word "hand" indicates her inability or struggle to handle the new situation.

In this light, Flynne can experience this new future world not only visually, but also synaesthetically, "engag[ing] in a tactile or haptic vision that demands a complex coordination of multisensory perception and the body-in-motion" (Richardson, Wilken 2009, p. 36). Although Ingrid Richardson and Rowan Wilken utilize the term "haptic" or "tactile vision" to describe the synesthetic "aspect of mobile phoning and [locative] gaming" (p. 28), it can be used to refer to this kind of telepresence that the mobile phone renders feasible in this novel, and, more specifically, to the transformation of Flynne's vision into a material and haptic experience as a result of her being

embodied in a material mechanical body that offers her mobility in the telepresent space. Indeed, her mobile phone does not only permit her to see this new reality, but also to actually feel this place with her peripheral body. Consequently, using Richardson's words to describe Flynne's condition, I would argue that she "experience[s] visual, aural, and/or multi-sensory presence at a place where [she is] not physically located, [...] extend[ing] [her] senses into a remote location, and simultaneously seiz[ing] the remote location into [her] own immediacy" (Richardson 2009, pp. 1219-1220; emphasis in original). Therefore, the mobile phone as used in Flynne's case, and by extension her peripheral body, are "not simply prostheses or augmentations of [her] sensorium, but tools which impact upon [her] body limits, shifting the variable boundaries of embodiment, and altering [her] sense of having a body" (Richardson 2007, p. 207).³ The mobile phone here serves a double function. First, it enables her to "[be] corporeally tethered to [another] body in real time, and thus paradoxically co-present at-a-distance" (Richardson 2009, p. 9),⁴ while her organic body is situated in another physical reality in the 2030s. Secondly, the phone is incorporated in the peripheral body in future London: "It's a body, [...] [g]ot a phone built in[,] [which is] inside somewhere. On-off menus on the roof of your mouth, like a keyboard" (Gibson 2014, p. 185). This creates an effect of layeredness and multiplicity: the smartphone enables her to achieve "ontic dispersion," to use Richardson's terms once again, but in the telepresent space it is incorporated in the peripheral body, offering Flynne the ability to achieve telepresence anew by seeing what other characters see, as happens, for example, when Ash, another character in the novel, "open[s] a feed [...] full binocular" so as to show her the Cosplay Zone of future London (p. 196).⁵ Put simply, Flynne eventually has two phones: one for her static organic body that grants her access to Wilf's world, and another one for her mobile peripheral body.

Consequently, Flynne's haptic vision invites a reconsideration of the telepresent spatial realm she enters that appears to be emphatically material. First and foremost, this space is initially presented as an informational realm that is accessed virtually via a "very mysterious server" (p. 284), as another character, Lowbeer, says, which is sit-

³ In writing this, Ingrid Richardson refers to "[m]obile media technologies, and tele-technologies more generally" (Richardson 2007, p. 207). However, this can be applied to *The Peripheral* as well.

⁴ Richardson attests that "with telephonic telepresence we were afforded the impression of being corporeally tethered to another's body in real time, and thus paradoxically co-present at-a-distance" (Richardson 2009, p. 9), something that is applicable to *The Peripheral* in Flynne's case.

⁵ This kind of technology seems to be the equivalent of simstim technologies that are portrayed in Gibson's cyberpunk novels. A simstim link is a device "whereby a person's brain and nervous system is stimulated to simulate the full sensory experience of another person" ("Study Guide") and in Gibson's fiction it offers one the opportunity to share personal experiences and sensations. For example, Case, the cyberspace cowboy, is able via a simstim link to share Molly's experiences and sensations, such as her eyesight and her pain, while in the short story "The Winter Market," the female character, Lise's experiences are sold to the audiences and are shared via a simstim device. Peripheral technology in *The Peripheral* seems to be a revised version of the simstim in which the mobile phone is used.

uated in China. As Lev also informs Wilf, this server is a "massively encrypted [...] device that sends and receives information, to and from the past, [...] generat[ing] continua" (p. 189). This creates the impression to the readers that, in a similar manner that cyberpunk characters enter the parallel reality of cyberspace as shown earlier in the example of Neuromancer, the future space in The Peripheral is also a simulation or virtual reality, given that the connection between the two spaces is realized via a computer. However, the twist that Gibson offers in this novel is that this future reality to which Flynne is connected is a material space that can only be accessed virtually through the server as well as through the mobile phone, as has already been commented on. Indeed, Gibson redefines virtual space by introducing a liminal space that he describes in his narrative as "virtually physical" (p. 468),⁶ to use a character's words when he first sees Flynne in her peripheral towards the end of the novel. This notion of "virtually physical" space is also underlined when Flynne first enters this telepresent space, with Ash telling her, "you're able to be here now, [...] virtually vet physically" (p. 183). In this case, the difference between virtual and physical space is essentially blurred, since they appear to be synonymous (de Souza e Silva, Sutko 2011, p. 31),⁷ a fact that is evident in the narrative in several instances. For example, after her talk with Wilf in Soho Square, Flynne "felt like the walk through the greenway had been real. Which it had, but her body hadn't done it" (Gibson 2014, p. 360). Here, the virtually-accessed space Flynne enters is presented as "real." In addition, this blurring of boundaries between the two notions manifests itself in the dialogue between Lowbeer and Flynne: Lowbeer meets Flynne in her peripheral telling her "that arranging your death would in no way constitute a crime here, as you are, according to current best legal opinion, not considered to be real," while Flynne replies "I'm as real as you are" and Lowbeer agrees saying that "You are indeed" (p. 200). Moreover, Flynne realizes that the mobile game she was supposed to be playing with Burton's (her brother) phone from the very beginning of the novel "[has] never been a game," as Wilf discloses to her, because what she has witnessed as a game world is actually "real" (pp. 182-183). The same applies when Wilf visits Flynne's world via telepresence through the Wheelie Boy, "a mini-tablet with a cam, on a stick" that Flynne "thought [...] must have been part of where peripherals were going to come from" (p. 315) in Wilf's world:⁸ Wilf says, "I know this is real, [...]

In his PhD dissertation "Place without Space, Identity without Body: The Role of Cooperative Narrative in Community and Identity Formation in a Text-Based Electronic Community," Jon Mark Giese also refers to the term "virtually real" (p. 259), but he emphasizes the extent to which there is correspondence between virtual communities and communities in the real world.

⁷ The underlying principle of Gibson's idea of virtual physicality in *The Peripheral* can well be captured by de Souza e Silva and Sutko's realization that "[i]f the real can be unfolded into different possible realities, the virtual and the real are actually synonymous and reality, or physicality, becomes one of the faces of virtual" (de Souza e Silva, Sutko 2011, p. 31). Although the authors do not refer to *The Peripheral*, their observations can be also applicable to Gibson's novel.

⁸ As the narrative reveals, Wheelie Boy devices were "[m]arketed as toys, baby monitors, long-distance friendship or sad romance platforms, or even a kind of low-rent virtual vacation. You could buy or

it must be, but I can't believe it," and Flynne responds that "I can believe in yours, Wilf. Have to" (p. 318). Interestingly, the characters find it difficult to accept the materiality and actuality of the worlds they visit telepresently, since both of these spaces are accessed virtually. Gibson here is being playful with the notions of the real and the virtual: on the one hand, what is considered to be real is also virtual because it is accessed via virtual means, which in this case is the computer server and the mobile phone. Conversely, what is considered to be virtual is at the same time real because of the materiality of the characters' spatial (bodily) experience of this very world. Hence, both worlds are simultaneously virtual and physical, that is "virtually physical." Gibson verifies Jason Farman's observations that it is difficult to distinguish the difference between the virtual and "the 'real' space when a virtual interaction offers a very 'real' experience" (Farman 2012, p. 36).9 The author paradoxically combines these two notions that have long been separate. By equating the virtual with the physical, he aims to call attention to the materiality of telepresent space. Taking into account Richardson's theories on telepresent media, one could argue that these spaces can also be described as "quasi-spaces where a sense of presence can be felt beyond the location of the physical body" (Richardson 2009, pp. 1218-1219). Thus, in The Peripheral Gibson produces indeterminate liminal spaces and bodies in an attempt to demonstrate the ways in which mobile media technologies of telepresence complicate contemporary notions of spatiality. Finally, Federica Timeto's observation seems to be relevant here: "[t]he more the planes of our reality interface with one another through locative and ubiquitous networks, the more difficult it becomes to distinguish between places that are only physical and places that are only virtual, between materiality and information, between location and mobility" (Timeto 2014, p. 98). Importantly, although Timeto refers specifically to locative media, Gibson here does not depict purely locative spaces, but he is rather interested in the similar effect that ubiquitous mobile forms of telepresence technology have on the formation of space.

If this is the case, Flynne's telepresence can be viewed as a form of ubicomp, or ubiquitous computing. In fact, telepresence constitutes a manifestation of ubiquitous computing for Bolter and Grusin, who argue that "[u]biquitous computing is not satisfied with mere monitoring" (Bolter, Grusin 1999, p. 219). Instead, ubicomp "wants to affect what it monitors—hence teleoperation" (p. 219), which is the case with Flynne who teleoperates her peripheral body. Bolter and Grusin's observation

rent one in Vegas or Paris, say, drive it around a casino or a museum, see what it saw. And while you did, [...] it showed you face on the tablet. You wore a headpiece with a camera on a little boom, which captured your reaction as you saw things through the Wheelie, and people who were looking at it saw you that, or them, and you could have conversations with them" (Gibson 2014, p. 315).

⁹ Jason Farman argues that "[w]hile pervasive computing space often prompts a comparison between the 'real' and the 'virtual,' such dichotomies do little to inform our embodied experience of this kind of space [...]. We might even ask, what distinguishes the 'real' when a virtual interaction offers a very 'real' experience" (Farman 2012, p. 36). This effectively describes Flynne's telepresence as well, which can be considered a form of ubicomp, as I will explain further down in the analysis.

that "telepresence brings the physical world into the virtual environment" (pp. 214-215) seems to apply to Flynne's telepresence, since her physical presence is brought into virtual space that also appears to be physical, as has already been shown. In this manner, Gibson produces a kind of "physically manifested telepresence" (Gibson 2014, p. 136), as Lowbeer describes Flynne's telepresence in the narrative. Telepresent space is then depicted as a material space within which Gibson's characters act and perform their embodied spatial practices.

Within this context, it can be argued that Gibson seems to comply with Hayles's views about the relationship between the physical and the virtual. Havles embraces the materiality of the interface that connects the physical with the virtual world, criticizing the separation of the virtual from the physical. In this sense, Flynne appears to "embrac[e] the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality" (Hayles 1999, p. 5), to quote Hayles when she postulates on the relationship between the virtual and the physical. Hayles also believes that "we can recover a sense of the virtual that fully recognizes the importance of the embodied processes constituting the lifeworld of human beings" (p. 20). In a similar vein, Flynne in the novel does not inhabit virtual space as Case does in *Neuromancer*, but temporarily acquires a material existence that is actualized via mobile communication technologies. Flynne's case illustrates not only how the virtual becomes physical by being re-embodied in a material yet mechanical body,¹⁰ but taking this a step further, it could be argued that the interaction of her mobile phone with her organic body can lead to the emergence of a hybrid entity comprising both organic (human body) and technological elements (mobile phone and peripheral body).

As regards the materiality of virtual space, it seems that in *The Peripheral* Gibson emphasizes the co-existence of the two spaces and the spatial hybridity resulting from their cross-fertilization, capturing the shift in contemporary theories of virtuality that is emphatically evident in the mid-2010s. In contrast to the idea of the virtual as a separate realm that is evident in cyberpunk works like *Neuromancer* examined earlier, scholars in the 2010s emphasize the physicality of the virtual, erasing the difference between physical and virtual space. Namely, on theorizing about ubicomp space, Farman verifies that "theories of virtuality and simulation fail us in important ways," in that they "tend to ignore the materiality of the virtual" (Farman 2012, pp. 37-38). Farman also claims that the virtual and the physical should be used

¹⁰ This novel can be viewed in juxtaposition with other science fiction novels, such as Robert J. Sawyer's *Mindscan*, where the protagonists's mind has been transferred to a posthuman body, in a similar way that Flynne does in *The Peripheral*. However, *The Peripheral* differentiates itself from such novels, since Flynne's organic body does not perish, as is the case in *Mindscan*, but continues to exist, controlling an artificial drone body via mobile technologies of telepresence. Telepresence is a narrative trope used to show the shift in spatial perception and the posthuman as a result of the interaction of the human body with mobile technologies. Evidently, Gibson departs from the notion of cybernetic and posthuman immortality.

in conjunction with and not "in isolation from one another" because "[t]he virtual as a force or power is always conjoined with ideas of actualization or realization" (p. 23).¹¹ Farman actually stresses the ability of the virtual to be potentially "realized or actualized [...] through embodied practices" (p. 23)¹², something that is evident in *The Peripheral* as already shown. This idea of the virtual as actual or potential is also promoted by de Souza e Silva and Sutko who place the discussion about the real and the virtual within the context of mobile locative applications, arguing that virtual narratives placed in the urban physical environment with the use of locative means are actualized by these technologies (de Souza e Silva, Sutko 2011, pp. 33-35).¹³ This approach to locative media can prove useful enough to discuss the ways in which the real and the virtual interact in *The Peripheral*, since Flynne's world remains virtual until it is actualized¹⁴ when she connects to the peripheral. In other words, the virtual becomes real when she is re-embodied.

Hidenori Tomita utilizes another term, the "second offline," to refer to the equation of the virtual and the physical. Her observations can be used with regard to Gibson's visualization of the digital and the real in *The Peripheral*. For Tomita, the real world is the offline world, while the virtual can be regarded as the physical world and is thus defined as a second offline in the sense that it is "an online space merged with the reality of the offline space" (Tomita 2016, pp. 158-159). While, according to Tomita, the two realms of the virtual and the physical can be equated in the sense that the second offline is "the state in which virtual information is superimposed onto real space, the situation in which people constantly refer to information on the Internet in their everyday lives, or an offline mode in which people always refer to online information" (p. 157), Gibson seems to be metaphorically approaching these observations from a literary perspective. This is because Gibson establishes a co-influential relationship between the two future worlds, which echoes Tomita's argument that "offline and online information may influence each other" to the extent that one may "anticipat[e] a case in which their relationship is cooperative," or "a case in which there is conflict between online and offline information" (p. 160). Indeed, Gibson's worlds can be viewed alongside such theoretical observations, given the fact that

¹¹ Farman continues theorizing about the materiality of the virtual, contending that "the virtual is not the opposite of the real; instead it is a component of experiencing the real. The virtual serves as a way to understand the real and as a form of actualization that serves to layer and multiply an experience of that which is already realized" (Farman 2012, p. 23).

¹² Farman writes that "[t]he realized or actualized is always implicated by the virtual (broadly defined) and such an implication is produced through embodied practices" (Farman 2012, p. 22).

¹³ De Souza e Silva and Sutko refer to locative media so as to consolidate their argument. However, their observations can effectively be applied to *The Peripheral* in order to discuss the relationship between the real and virtual. The reason I refer to de Souza e Silva and Sutko's locative theories here is to theorize about mobile (telepresent) technologies and especially mobile media more broadly.

¹⁴ Marie-Laure Ryan also explores the idea of the virtual as potential by drawing on Pierre Lévy's theories of virtuality. For additional information on the virtual as actual or potential, see Ryan 2015, pp. 26-29.

there is constant exchange of information between the two worlds and one influences the other. As Flynne remarks, "[i]nformation from there affects things here" in her world (Gibson 2014, p. 192). Indeed, events happening in one world influence events in the other. Not only does the fact that Burton wins the lottery alter the world's economy, but forces from Wilf's world, namely Lowbeer, cooperate to change the course of history in Flynne's world so as "to stop the jackpot" through "the prevention of the assassination of Felicia Gonzales" (p. 378) who is the US President, something that is eventually achieved in the end of the novel. Moreover, the two worlds are in conflict when forces from Wilf's world, such as Daedra and her team, struggle to assassinate Flynne and her people by sending forces to their headquarters.¹⁵

Narratologically speaking, Gibson resorts to time-travel in The Peripheral so as to describe movement between the two spaces. Gibson places time travelling and the idea of world-building within the context of pervasive and mobile computing technologies by presenting his future worlds as being in a constant exchange of information via technological means. But time-travel can also be seen as a narrative technique that reformulates Marie-Laure Ryan's idea of "recentering." Ryan writes that "[i]n the space-travel mode, consciousness relocates itself to another world and, taking advantage of the indexical definition of actuality, reorganizes the entire universe of being around this virtual reality. [...] Insofar as fictional worlds are, objectively speaking, nonactual possible worlds, it takes recentering to experience them as actual" (Ryan 2015, p. 103). A number of observations can be made with regard to this argument in relation to The Peripheral. First, Flynne's and Wilf's worlds in The Peripheral can no longer be regarded as "possible" in Ryan's sense, since, as is revealed to Flynne in the narrative, Wilf's world "isn't your future. [...] When we made contact, we set your world, your universe, whatever it is-[c]ontinuum [...]—on a different course" (Gibson 2014, p. 182). Secondly, these worlds are no longer "nonactual" either, since they are actualized via the Chinese server and mobile technologies that offer characters access to these worlds. Thirdly, both Flynne and Wilf are "recentered" in their attempt to experience each other's worlds, although these worlds are no longer virtual, as Ryan writes, but "virtually physical," as I have already shown. In fact, "[t]hese worlds are actual from the point of view of their inhabitants" (Ryan 2015, p. 101) so as to use Ryan's words once again. Finally, Gibson extends the idea of recentering in The Peripheral, which is also experienced by the readers themselves because the two worlds are presented in the novel alternately, with the readers needing to constantly "recenter" while reading the novel in their effort to experience it both from Flynne's and Wilf's perspective. Hence, Ryan's space-travel

¹⁵ Following H. Porter Abbott's theory, one could argue that Flynne's and Wilf's worlds in the novel also constitute "*forking-path* narratives in which competing worlds encroach to each other" (Abbott 2002, p. 168). Abbott argues that the two worlds "do not conflict and they are connected by a secret passageway" (p. 168). Although the two worlds in the novel do conflict, they are indeed connected via a "very mysterious server" (p. 284) functioning as a time travel device, as I will show further down in my analysis.

narrative model is disguised in the novel as a time-travel mode, in which characters gain access to different material or rather virtually physical, spatio-temporal geographies via smartphone telepresence.

All things considered, in *The Peripheral* Gibson challenges contemporary theories on virtuality by shedding light on technologies of telepresence and mobile media communication technologies which have triggered different visualizations of space. Through practices of telepresence, Gibson subverts the idea of virtual space as fundamentally separate from physical reality as it was conceptualized in his early cyberpunk works, namely *Neuromancer*, thereby promoting the equation of the two spaces, the virtual and the physical, which appear to co-exist. The author seems to capture through language the ability of individuals in contemporary (Western) society to disperse themselves geographically with the aid of new (mobile) media so as to exchange information. In this manner, he deftly manages to create a literary metaphor for the feelings of co-presence that contemporary drone-like, mobile media create by offering users the opportunity to virtually share experiences with others in real time from a distance, as Flynne and Wilf do in the novel.

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