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“#Gameüse:” Planting the Digital Garden

The advent of digitalization has significantly changed gardening traditions and practices. Not only can digital technology influence cultivation itself, but it can also simulate cultivation in the form of gaming. An important forerunner of the digital gardening trend is Zynga’s well-known game *FarmVille* (2009), a social-network browser game that was usually played on *Facebook*. The game lets its users simulate agriculture and offers related activities such as plowing, planting, and harvesting. A romanticization of the pastoral¹ is probably an important factor for the success of *FarmVille*: As Alenda Chang puts it, “the humble farm game convinced millions to [...] log on regularly, in order to colonize the pastoral frontier of the social web” (159). In an unusual take on the pastoral vision, the Berlin-based company *IPGarten*² seems to be a real-life manifestation of *FarmVille* by offering a gamified process for planting and ordering vegetables. “Ordering” is used here in the double sense of structuring the arrangement of vegetables on the plot, and at the same time buying them.

This chapter analyzes the design and the workings of the *IPGarten* ordering process from the perspective of American Studies. As a result, inherent notions of what I call pastoral surveillance characterize this combination of online gardening and grocery shopping.³ While analyzing this process, it is important to note that *IPGarten* is guided by the principles of the *Gemeinwohlökonomie* (an economy for the common good), an economy model proposed by the author and political activist Christian Felber. Thus, *IPGarten* does not aim to gain considerable economic profit, which complicates their ongoing quest for funding (see Kruszka 2020b).⁴

IPGarten offers a service which resembles *FarmVille*, with the exception that plants are grown on actual fields, roughly 78 miles from Berlin. One plot of 16

1 The pastoral here refers, in a broad sense, to art forms that portray an idyllic country life, usually with the shepherd watching over the sheep, or the idealized farmer. According to the *OED*, the pastoral is a “literary work portraying rural life or the life of shepherds, esp. in an idealized or romantic form.” See Empon for a detailed discussion of the pastoral; for a discussion of the pastoral and the counter-pastoral in connection to farming games see Chang 158–165.

2 The *IPGarten* hashtag “Gameüse” is a pun combining “game” with the German word for vegetables (*Gemüse*). The company’s online gardening is currently only available to customers from Berlin.

3 While this chapter does examine certain processes employed by *IPGarten*, it is not aimed at criticizing this form of gardening or the people who use it.

4 Martin Kruszka is the founder of *IPGarten*.

square meters can be rented for €395 per year, on top of roughly €40 for gardening services (see Thiemig 242). Similar to a remote control, the client-gardener (or player) gives commands or orders while navigating the digital plot, and the farmer executes them. Thus, a veritable playing field emerges where gardening and gaming meet: the plants cultivated on the virtual plot are later sent to the client-gardener. On top of this, *IPGarten* offers “unique transparency” (243) in the form of surveillance through on-site cameras. These elements establish a tension between a pastoral vision and notions of surveillance: this pastoral surveillance enabled by the camera in the garden is made up of contesting perceptions of being in control and being controlled.

IPGarten and Pastoral Surveillance

The company’s self-branding is represented by a short advertising video which depicts gardening as an enjoyable and easy enterprise, accentuated with cheerful and slightly childlike music (see “*IPGarten* in 40 Sekunden”). In this video, satisfied customers are shown using the *IPGarten* software at home while someone else tends to the physically separate, rented plot. The vegetables on the plot are spotless and colorful. When gardeners’ hands are shown in the video, they are either tidy or in gloves; one early shot shows an already clean pair of hands being washed. The apparent naivety encoded in this advertisement coincides with a simplified pastoral vision in the form of the garden as idealized escape from the city; it capitalizes on the fast and work-oriented lifestyle of Berlin’s urban dwellers, promoting the sense of being able to grow one’s own vegetables even if you do not have the time to “put your hands in the ground” (“*IPGarten* in 40 Sekunden”). This video and the *IPGarten* software seem to draw on *FarmVille*, which make use of a similarly playful, green, and clean aesthetic.

Apart from being, as *IPGarten* suggests, a playful activity, gardening itself has many more connotations, such as contact with nature or hard physical work. *IPGarten* implicitly invokes the “return to nature”-trope, stating that it wants to bring young and old people “back to the garden” (*IPGarten* website).⁵

5 “Wir wollen keine Konkurrenz zum eigenen Gemüsegarten sein. Vielmehr wollen wir junge wie alte Menschen über die ‘Brücke’ *IPGarten* wieder *zum Garten zurückführen*” (*IPGarten* FAQ; emphasis added). “We do not want to compete with the personal vegetable garden. Rather, we want to bring young as well as old people *back to the garden* using the ‘bridge’ that is *IPGarten*” (trans. E.H.; emphasis added). Adding more bridges, Boris Thiemig, a member and executive manager of *IPGarten*, suggests that the company builds a “digital bridge” between city and country, between clients and organic farmers, and between client and garden (see Thiemig

Gardening can be a necessary and self-sufficient form of food production in the form of strenuous physical labor, a utopian playground, or a leisurely pastime. Most importantly, gardening implies a fundamental ambivalence in its relation to nature: it can denote a humble ‘return’ to nature, but at the same time, it is a cultivating appropriation and domestication of nature. A similar ambivalence also defines the pastoral vision: “The pastoral as a mode [...] expresses a feeling which oscillates between a longing for peace and harmony on the one hand and for an improved civilized world on the other” (Grewe-Volpp 155).⁶

To bring forth the pastoral connotations of *IPGarten*, Thomas Jefferson can be invoked: As Jefferson puts it, those “who labor in the earth are the chosen people of God” (678). Jefferson, as Henry Nash Smith notes, is known for positing the “cultivator of the earth, the husbandman who tilled his own acres, as the rock upon which the American republic must stand” (128). Blurring the line between garden and farm, Smith also states that the American “master symbol of the garden embraced a cluster of metaphors expressing [...] growth, increase, and blissful labor in the earth, all centering about the heroic figure of the idealized frontier farmer” (123). This frontier farmer, according to Leo Marx, is an embodiment of the pastoral “literary shepherd” (130).⁷ This male figure of the frontier⁸ farmer-shepherd has an important function in the *IPGarten* software, as we shall see.

In the American garden metaphor, the figures of gardener, farmer, and shepherd often seem to blend into one, and coincidentally, *IPGarten* is a prime example of how the terms “garden” and “farm” are sometimes used interchangeably.⁹

239 – 241). However, the divide between city and country thus emphasized (see, for instance, Williams; Conn) is too wide a topic to be discussed in the frame of this chapter.

⁶ Ecocritic Lawrence Buell proposes that “‘pastoral’ has become almost synonymous with the idea of (re)turn to a less urbanized, more ‘natural’ state of existence” (31). At the same time, the “natural environment as empirical reality has been made to subservise human interests, and one of these interests has been to make it serve as a symbolic reinforcement of the subservience of disempowered groups” (21). Countering this idea of nature’s “subservience,” ecofeminism, for instance, can advocate “a human collaboration with nature as opposed to the domination of nature” (White 18).

⁷ More precisely, Marx proposes to reveal the “noble husbandman’s true identity: he is the good shepherd of the old pastoral dressed in American homespun” (127).

⁸ Partly reminiscent of the frontier narrative, a 2019 *IPGarten* advertising campaign emphasizes the “pioneering” quality of IP gardening (ipgarten.de, see also Thiemig 244).

⁹ As Crawford puts it, “[u]nspoken hierarchies of class, gender, and race are at play in the definitions, too. To call someone’s farm a garden (with its feminized connotation), a hobby farm (with its elitist connotation), or subsistence farm (with its impoverished one) can carry a whiff of superiority.” Moreover, she points out that the “marketing potential of the word *farm* is significant – having a farm attached to one’s business can raise its profile as well as its prof-

Its name suggests the activity of gardening, and the employees are mostly called gardeners. However, growing food which is to be sold is a common denominator of farms (see Crawford), and the United States Department of Agriculture defines a farm as “any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the year” (“Farm”), a sum which *IPGarten* easily surpasses. The general direction of this distinction is mirrored by environmental scholar Robert S. Emmett, who states that, at least in American history, food gardens were mainly connected to subsistence, while farming became more and more industrialized (see 34) in the twentieth century. This might explain why *IPGarten* prefers the term “garden,” as it implies small-scale local production, trustworthiness, and accessibility.

To return to the American garden metaphor and to cite another important American thinker, gardening, according to Henry David Thoreau, is “civil and social, but it wants the vigor and freedom of the forest and the outlaw. There may be an excess of cultivation as well as of anything else, until civilization becomes pathetic. A highly cultivated man, all whose bones can be bent! whose heaven-born virtues are but good manners” (55). “Vigor” here denotes an “[a]ctive physical strength as an attribute or quality of living things” (*OED*). In humans, vigor apparently is threatened by what Thoreau calls “an excess of cultivation” (55), a removal of humans from nature, establishing a divide between human ‘nature’ and cultivated civilization. Following Thoreau, gardening thus denotes a “civil and social” taming or domestication of (human) nature. However, within this tamed form, gardening still contains a – maybe fundamentally American¹⁰ – yearning for “vigor and freedom” as indicated by the formulation “[gardening] wants the vigor and freedom” (Thoreau 55), which is to be understood in the sense of gardening as ‘lacking vigor and freedom.’

At first sight, the service offered by *IPGarten* seems to interact harmoniously with both Jefferson’s idealized agrarian farmer and Thoreau’s notion of the desirability of “freedom and vigor.” This service makes it possible for everyone, even busy urbanites, to become a farmer and a gardener of sorts. It allows for freedom and vigor in the form of being free to do the gardening in one’s own time, without having to depend on weather, specific locations, or other physical restrictions.

On the other hand, *IPGarten* enables surveillance and works with commands; it creates a mechanical, maybe restrictive vision of gardening which

its.” Interestingly, *IPGarten* seems to do the opposite thing in calling its patchwork field of plots a “garden.”

¹⁰ According to Marx, the “pastoral ideal has been used to define the meaning of America ever since the age of discovery” (3). The garden metaphor is tied to this pastoral ideal.

runs counter to ideas of freedom and vigor and seems to embody something which Thoreau would criticize as “excess of cultivation” (55) in the form of controlled virtual gardening with no physical contact to the outside world. This controlling environment is embodied by the drag-and-drop movement of planting crops, virtually pulling radishes across the screen, and putting them in the digital ground. This movement implies direct control and total command of the crops – without putting any effort into it, unlike the process of physical planting. Therefore, it “wants vigor:” the client-gardener sits at home and can do the gardening without having to move much at all.

IPGarten also offers the possibility of not doing any digital planting at all if the autopilot mode is selected. Since this system works with commands, it automatically establishes a hierarchy. The player uses the software to give orders and request vegetables: everything that is planted in the digital plot results in a direct email with a corresponding order to the gardeners outside of Berlin who carry out the planting and further “gardening services” (Thiemig 241, “gärtnerische Dienstleistungen,” trans. E.H.). This way, the client-gardener seems to be in control of the plot. However, they are not able to virtually move around or navigate the gamespace: there is no mobile avatar, only the plot and the cursor. This way of ordering and buying vegetables suggests a hierarchical system, because the person in the field, who carries out the clients’ commands and can be an employed gardener or an organic farmer who cooperates with *IPGarten* (see Thiemig 241, 243), then seems subjugated to and controlled by the on-site cameras.¹¹

The aspect of control is further enhanced by the words chosen for the platform. To plant the crop, the player can use a so-called “planting matrix” (trans. E.H.).¹² In an etymological sense, the matrix denotes a “supporting or enclosing structure” (*OED*) in the form of the maternal womb which enables growth. It thus seems well-suited to gardening.¹³ However, the plant matrix also carries with it a calculating approach to gardening – in the sense of a matrix as an organizational, enclosing, and structuring grid. With the “plant matrix,” the sense of ordering

¹¹ In an American context, this slightly problematic part of the *IPGarten* system might even allude to questions of the agrarian ideal and slavery, a relationship most famously embodied by Thomas Jefferson. I wish to thank Dietmar Meinel for this observation. Correspondingly, the apparent *IPGarten* hierarchy might call into question the “happy classless state” (Marx 127) of the Jeffersonian pastoral ideal as well as *IPGarten*’s self-promoted sense of the economy for the common good.

¹² “Pflanzmatrix” (ipgarten.de)

¹³ As a side note, the idea of the plant matrix emphasizes the overall staked-out, rectangular shape of the ‘little plot.’ This parceling of land calls to mind historical American references such as the Homestead Act of 1862 which granted land to individual farmer settlers.

as structuring, as commanding, and as placing a request at the same time becomes evident. This grid to plant the crops then guides and restricts, and thus controls, the planting process. Now, the client-gardener might still have the illusion of being in control but is in fact following the game's rules. The text and images accompanying the various gardening services posit and personify plants as conscious beings which try to "escape" as, for instance, the "pumpkin grows into the neighboring plot," or "pumpkin, zucchini, and the like try to run away from your plot" (trans. E.H.).¹⁴ On the website, this text box is accompanied by an image of a dip net capturing a plant. Thus, the client-gardener gains a feeling of being able to control these plants which seem to have a mind of their own.¹⁵ The plants must be kept in line, which is achieved by the commands of the client-gardener.

Control is also conveyed through the figure of the optional gardening guide, who is called *Landwirt*, a slightly sophisticated German word for "farmer." Thus, gardening knowledge is provided to the client-gardener in the form of a (white, male) guide, whose function is comparable to a Non-Player-Character (NPC) in video games. This valuable knowledge must be paid for. In the form of a speech bubble, the guide then tells the client what kinds of plants he or she can plant next to each other to ensure beneficial growth and equal distribution of nutrients. This benevolent pastoral farmer supervising the gardener's activity can be compared to Jefferson's idealized agrarian frontier farmer, a white male who is experienced in agrarian work such as tilling, planting, and harvesting and who, in Jefferson's view, builds the backbone of the nation (see Smith 128). In the *IPGarten* software, this type of farmer is installed in the form of the guiding and controlling *Landwirt*, who is a farmer and a shepherd at the same time. The *Landwirt* resembles a 'kind uncle,' while he also has supervising and controlling features.¹⁶ The client-gardener, depending on experience level, is dependent on the knowledge provided by the *Landwirt*.

14 "GEMÜSE FANGEN. Der Kürbis wächst ins Nachbarbeet. [...] Kürbis, Zucchini und Co. machen schon mal 'lange Arme' und reißen gerne aus deiner Parzelle aus. Du kannst dein 'junges Gemüse' aber wieder einfangen lassen." (ipgarten.de)

15 On the other hand, the plants must also be protected from bugs, mosquitoes, and weeds. The activity of weeding has, for instance by Zygmunt Bauman, frequently been connected to a violent process of clearing a (garden) space from unwanted 'contamination' (see Bauman 30–39). In the *IPGarten* app, weeding is another service that can be easily commanded and ordered for an extra fee.

16 In a planned software update, the *Landwirt* will also display emotions, for instance a sad facial expression, if the client-gardener forgets to water the plants. The updated *Landwirt* will also be able to learn and conserve established gardening knowledge (see Kruszka 2019).

In contrast to being supervised by the *Landwirt* farmer guide, the client-gardener can keep everything the gardening employees on the field do under surveillance. There are more than 400 cameras on site which constantly show what is happening on the field. This stream is updated every 60 seconds, and the cameras also have night vision. Moreover, there are soil sensors in the ground, and drones take pictures of the plot from above. As stated in the company’s FAQs, this is also one of the reasons why *IPGarten* does not wish visitors to walk on the field, because the company cannot guarantee any kind of privacy or data protection due to the live-streamed camera content.¹⁷ At first sight, this does not matter when it comes to their own field workers. However, employees can cover the cameras if they do not want to be filmed (see Kruszka 2020b), and it is nearly impossible to recognize a face through the webcams (see Kruszka 2020a).¹⁸ Interestingly, as Kruszka notes, the company’s service would also work without the use of cameras. According to a survey, roughly half of their clients would support a version of *IPGarten* that works without cameras (see Kruszka 2020b). Still, the atmosphere of possible surveillance and the advertised “transparency” seem deeply at odds with the harmonious pastoral activity that is sold by the company. On the other hand, it simply mirrors what is already engrained in gardening – the cultivation (and thus, also the surveillance) of nature to make it fit one’s own needs.

The possible surveillance of gardening employees and of the field itself via the camera shows how *IPGarten* intersects with a culture of surveillance and with social media. The camera is watching the pastoral landscape. However, by watching the field on a screen, the client-gardener can also be considered part of the camera. The surveillance of the field employed here brings a detached, dispassionate element into the process of gardening that seems at odds with the way the company brands itself, namely as a green activity that is beneficial to both city and country, that promotes diverse cultivation, and that adheres to standards of the economy for the common good. Surveillance is called “transparency” and is used to emphasize that, in opposition to common supermarket vegetables, the origin of *IPGarten* products is completely transparent. This way, the client-gardener gains the illusion of being in control once more. This apparent transparency also coincides with the clean look of the advertising video, where exhausting and dirt-related digging is turned into a clean and, virtually,

¹⁷ “Der Datenschutz kann nicht immer gewahrt werden, denn Kameras filmen und streamen ins Internet.” (ipgarten.de)

¹⁸ This raises the question whether it is socially acceptable for the employees to cover the camera, or if this act creates the impression that they might ‘have something to hide.’

see-through enterprise (see “IPGarten in 40 Sekunden”).¹⁹ In fact, surveillance and ‘harmless,’ enjoyable browser games seem to go hand in hand: Eric Schewe states that “[s]ocial media, in fact, have integrated free-to-play multiplayer gaming apps into their platforms to attract users and to establish regular habits.” According to him, these regular habits seem designed to “lull us into accepting surveillance” through “pleasure.” *FarmVille*, which shares the aesthetics of the *IPGarten* software, seems an adequate example of such gaming apps. Therefore, it is possible that users of *FarmVille* and similar games might be especially attracted to the aesthetics and the functionality of the *IPGarten* software.

Once again, gardening – and especially pastoralism itself – can denote a form of surveillance, viewing the shepherd or gardener as surveyor of sheep, landscape, or plants. Read this way, *IPGarten*’s webcam enables the online gardener to become a shepherd to the physically distant plot. This controlling notion of the pastoral can also be found in Michel Foucault’s concept of pastoral power: Taking the figure of the Christian pastor as shepherd caring for his flock, Foucault argues that the modern democratic state exerts pastoral power instead of absolute sovereign power. Thus, pastoral power constitutes a supposedly tender and caring form of power (see Foucault 782–784). To care for the flock, still, the flock must be observed and monitored – correspondingly, the garden plot is observed by the gardener (in this case: on screen, via a monitor).²⁰

The contesting layers and directions of control inscribed into the *IPGarten* process – in the form of governing one’s own plot but somehow being manipulated at the same time – are also embodied by the figure of the pastor-shepherd: Graham P. Martin and Justin Waring state that “[o]n the one hand, the pastor is a ‘relay’ of surveillance and discipline; on the other, the pastor promotes self-reflexive, self-governing subjects” (1298).²¹ Therefore, the *IPGarten* camera in the field embodies the pastor-shepherd. On the other hand, the pastor-shepherd is explicitly represented by the *Landwirt*. However, the latter appears to have a

19 For contemporary treatises on transparency in the realms of the social, the political, and in literature, see Docherty; Schneider; or Berger and Owetschkin.

20 Additionally, although the pastoral seems contrary to the sublime (see Fay 12), the notion of the sublime might shed a new light on the camera in the garden, if viewed in the sense of a “technological sublime” (Nye xiii).

21 The authors suggest that “Foucault’s nascent concept of pastoral power offers a route to a better conceptualization of the relationship between discourse, subjectivity and agency, and a means of understanding the (contested, non-determinate, social) process through which governmental discourses are shaped, disseminated and translated into action” (Martin and Waring 1292).

less tangible form than the camera, because this figure does not always appear and must be paid for.

In this atmosphere of surveillance, the digital and the physical garden space merge into one; the screen conveys a simulation of the garden that caters to a desire for an authentic gardening experience. Coming back to Thoreau’s statements on gardening, this process can also be read as an inversion. The *IPGarten* software suggests being in touch with an ideal nature in the form of the garden plot – via the double function of feeling in touch and using a *touchscreen* or a *touchpad* – while in fact encouraging more spatial distance between plant consumer and plant origin than is characteristic of conventional gardening. Thinking that they are going back to nature, the customer physically, and frequently, returns to a screen – the opposite of what a gardener would call nature. Thus, the screen is where Thoreau’s vigor (of physical exercise in the form of gardening) and freedom (of choice as in planting what the customer desires) are simulated but in fact undermined – this happens especially through surveillance and the game rules analyzed above, rules of structuring and commanding which create contesting notions of being in control and being controlled.

If gardening is, as Thoreau states, “civil and social,” then IP gardening could even be posited as a caricature of Thoreau’s statement. At first sight, *IPGarten* does not seem civil and social. It apparently emphasizes an individual, digitized approach to gardening over a community-based effort. However, *IPGarten* does support organic farmers, it adds to an increase of regional produce and denotes a departure from harmful monocultural farming in times of climate change and related droughts in central Europe (see Thiemig 243). IP gardening might also lead to an increased awareness concerning food sources and agricultural processes (see Thiemig 244).²² Moreover, *IPGarten* creates above minimum wage jobs in the country; superfluous produce can be donated; and *IPGarten* has been integrated into a class teaching syllabus (see Thiemig 244–245). On top of this, each rented plot contains one so-called Soli-square meter,²³ which

22 Thiemig here refers to a research group that investigates *IPGarten* from the angle of environmental psychology at the University of Magdeburg (see “Projekt IPGarten”). Moreover, projects like *IPGarten* could have beneficial effects concerning individual environmental education and decision-making (see WBGU 226).

23 “Die Natur ist nur schwer zu berechnen und sucht sich oftmals ihre eigenen Wege. So kann es auf ganz natürliche Weise zu Ernteausfällen kommen. Doch die Gemeinschaft steht hierfür ein. Ein Quadratmeter von jeder Parzelle ‘gehört’ allen und wird geteilt. Somit haben wir die Möglichkeit auf Ernteausfälle zu reagieren, und niemand muss leer ausgehen. Es wird im Bedarfsfall lediglich 1/16 deiner Gesamternte einbehalten und der Gemeinschaft zur Verfügung gestellt.” (ipgarten.de) “Nature is unpredictable; it finds its own ways. That is why crop failures can simply come as part of a natural process. But the community is ready for this: One square meter of every

even calls to mind the pre-industrial form of the commons: common land used by farmers. One square meter of every plot belongs to the community of IP gardeners, to be shared collectively in the case of crop failure or other incidents. This solidarity square meter is a major factor that supports *IPGarten's* claim of promoting the economy for the common good. They prioritize solidarity and economic sustainability rather than economic profit, while still working to build up the necessary reserve funds to run the business (see Kruszka 2020b). However, these notions seem to clash with the uncritical way that hierarchical control is suggested through mechanisms of surveillance. The laudable solidarity square meter also raises the question of how far the company invokes the current trend of urban community gardening as a vehicle for its own vegetable production.

Conclusion

IPGarten is a service that works with contesting levels of control which seem to empower the client-gardener only to locate control in the software itself (the company) in the following step. The question of who controls whom is probably not answerable. However, the pastoral surveillance embodied by the visual axis from screen to camera to garden strongly suggests that control is not in the hands of the person doing the physical part of gardening; thus, control lies either with the client-gardener or the company itself. Since these analysis results are mainly concerned with the software and design of *IPGarten*, the company's community-oriented properties and its work for environmentally friendly and not-for-profit agriculture should not be overlooked. The concept and the design of *IPGarten* house a variety of oppositions and unclear relationships, such as surveillance and transparency, community and individualism, control and freedom, vigorous exercise and relaxed convenience as well as the garden and the farm. In fact, what this company offers might have more in common with farming than with gardening. Mirroring the conflation of garden and farm inherent in the influential American garden metaphor, the imagined garden refuge which the company advertises is indeed a farm or an agricultural field: the garden plots outside of Berlin make up one big field that does not look like a garden at all. All these ambivalences show that a complex process underlies online gardening and

plot is 'owned' by the community and will be shared. This way, we can react to crop failures and no one is left out. In this case, only 1/16 of your harvest will be withheld and given to the community." (trans. E.H.)

farming, a process that stands in contrast to the supposedly easy and innocent activity sold by *IPGarten*.

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