DESIGN LIVRE: CANNIBALISTIC INTERACTION DESIGN

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This paper provides a historical account of cannibalism as used to explain how Brazilians integrate foreign cultural influences into their own culture and introduces a design praxis based on it. From Modernism to Digital Culture, cannibalism is a recurring tactic used to overcome cultural traditions without throwing them out. It proposes the hybridization of old and new forms in festive celebrations. Design Livre is an approach that combines the principles of Free Software with design methodologies, aiming to enable participation in the design process by anyone. Sharing source-code is not considered enough to enable such participation, thus Design Livre goes back to the level of metadesign ⁄ the underlining structures of design process ⁄ to subvert formalism and maximize appropriation. An example of a cannibal ecosystem developed by Faber-Ludens is described to instigate questions on intellectual property in design, co-creation, embodied relationships, and culture.

••• Interaction design, cultural studies, open design, metadesign •••

INTRODUCTION

Interaction Design is known for spreading cultural sensibility around technology development. Instead of pushing new technologies, Interaction Design tries to bring the use culture into the technology development process. The goal is not to reduce cultural resistance and maximize adoption, but to provide an empowered experience where users have control over technology. Interaction Design aims at technology appropriation, not at technology adoption.

This essay reports on a collective experience of appropriating Interaction Design itself into technology development in Brazil. Based on their enrollment at Faber-Ludens Institute for Interaction Design, the authors reflect on the practice of cannibalism, which is a common aspect used to understand the particularities of Brazilian cultures. The metaphor is brought back once again to sketch the foundations for an authentic Brazilian Interaction Design praxis, which is being called by now Design Livre.

BRAZILIAN MODERNISM

To understand cultural practices, it's paramount to look at their historical origins. Any reasonable history of culture should go beyond facts, looking on how facts are produced – described, translated, distorted – by culture (Latour, 1979). It's still debated if cannibalism ever happened among Brazilian aborigines in the way Hans Staden (1999) reported, but Brazilians have retold that story whenever they wanted to repel colonization.

Brazil officially broke up colonization from Portugal in 1822, but the cultural influence from European metropolis continued setting the stage for urban life long after that. It took a while to overcome the colonialist practice of exporting raw materials and importing manufactured goods, a trade logic which also reflected on other relationships like language, ideas, and behaviors.

In a effort to overcome this logic, after independence, Brazilian intellectuals tried to construct an distinct Brazilian identity, using the image of native peoples as a source of authenticity. Aboriginal Brazilians were depicted by romanticists like José de Alencar as a peaceful and humble, capable of being grateful for the civilized lifestyle imposed on them. The ancestral European morality was reinterpreted into natural behavior through the image of the *good savage*, and the native peoples were seen as manifesting it in a pure form.

During the XIX century, Brazil received massive immigration originated from places other than Portugal and Africa. This movement increased the diversity of cultural influences, later explored by Brazilian financial elite whose progeny decided not to follow the traditional path of studying abroad in Lisbon, but in more cosmopolitan metropolis like Paris and London. They came back full of ideas on how to open Brazilian culture to the world, both in economic and artistic terms, but faced an unfavorable political environment. Critics didn't receive very well those avant-garde ideas. Those artists claimed that Brazil didn't need to wait for novelties to come from Europe, but could develop it by itself. The *Modern Art Week*, in 1922, was the epitome that united these artists under the rubric of Modernism, an international movement that acquired a very different flavor in Brazil.

Brazilian Modernism didn't declare war against all forms of tradition. Instead, it proposed the coexistence of multiple temporalities: the old together with the new. Martín-Barbero (2002) observes that modernity images that came from abroad were used to push forward the national project, which concentrated more on being a competitive player in the global market rather than having efficient governance or an egalitarian society. Slavery, consid-

ered to be anti-modern practice, was thus converted into low wage employment – a legal, but not practical, freedom. Modernism worked to integrate African-Brazilians, and other ethnic groups, through a multiculturalist discourse, which didn't offer any practical option other than to maintain the current economic structure.

FIG. 1. ABAPORU, THE "MAN WHO EATS HUMAN FLESH" HAS STRONG ARMS AND FEET. TARSILA DO AMARAL (1928).

Among modernist artists, one group adopted the metaphor of cannibalism (referred as *antropofagia*) to explain, exemplify and justify the transformation of old traditions into new ideas and propositions. They relied heavily on the stories about pre-colombian native Brazilian tribes who ate captured enemies in post-war rituals believing they could get their strength into the tribe. The idea was to emphasize a certain manner of facing cultural influence: instead of denying earlier influences, and trying to create a "legitimate Brazilian culture", purified from any kind of external motivation, the modernists proposed to accept whatever influence – European or not, motivated by a very non-European ideal: the cannibal, which became iconic after Tarsila do Amaral painting (Figure 1).

A key text from this group is the Cannibal Manifesto (*Manifesto Antropófago*), written by Oswald de Andrade in 1928. The manifesto presented a theory of Brazilian culture based on hybridism and proposed a more coherent libertarian morality (Silva, 2007). Although Marinetti Futurism may have initially inspired Andrade, he was not seduced by the promise of an advanced society based on technological development. He knew that any determinism in Brazil would not be possible: "We never admitted the birth of logic among us", says his manifesto.

Interpreting Andrade poetry, Mirian Silva believes that the frequent usage of erotic and

radical images in his texts instigates bodily reactions from the reader:

> "The oswaldian Utopy establishes a place for the body, not an ideal place, but an open possibility for itinerary, a drifting itinerary, through the strategic appropriation of other bodies, which does not mean negating the other, but appropriating it for transformation, as well as letting others to appropriate of oneself body, the feasting metaphor, cannibalism." (Silva, 2007, p.87)

The Cannibal Manifesto has since been used as a key text to analyze Brazilian culture and understand the characteristic hybridism between multiple sources that constitutes Brazil's ethnic formation, as well as a frame of reference for the continuous effort to create a more indigenous Brazilian culture.

TROPICÁLIA

Along the XX century, media played a very important role in Brazilian national identity. While modernists were using newspapers to communicate with the few people that could read, populist president Getulio Vargas was using radio to develop an affective relationship with the broad population. After half of the century, television became the most important medium for national integration, the only source of information for the majority of population. The military government that took the lead of the country from 1964 to 1985 used television intensely to advertise a rather different notion of modernity. The country needed to be modernized, not in the pluralistic sense of Modernism, but in a very clear direction: industrialization, transport and energy infrastructure and governance. The government controlled media and censored any attempt to question this political project.

FIG. 2. THE COVER OF REFAZENDA MUSIC ALBUM SHOWS GILBERTO GIL EATING JAPANESE FOOD WITH AN EUROPEAN ROBE SURROUNDED BY A NETWORK OF INFLUENCES AND MEMORIES OF TRAVELING (1975).

It was a hard time for artists who wanted to push culture forward. Those who protested have been persecuted or deported. Nevertheless, one group of artists found on mixing Brazilian popular culture with global pop a mean for indirectly changing the monolithic mindset of that political scene. Tropicália artists experimented combining disparate references in every work, specially those references they met during political exile abroad (Figure 2). They made explicit allusion to the previous cannibalistic movement, but instead of delivering erudite works, they delivered pop works. Being aesthetically appealing and harmless to the dictatorship, Tropicália got a lot of space on media. Together with other countercultural flavors, such as psychedelic, spirituality and funk music, Tropicália had a lasting impact on clothing, customs and music produced in Brazil since the 1970's, opening a space for creative expression that could undergo the repressive political environment.

DIGITAL CULTURE

The cannibalism metaphor was brought back again to the cultural landscape when Gilberto Gil, a prominent artist from Tropicália movement, was appointed Brazilian's Minister of Culture in 2003. The National Culture Plan elaborated by his team mention it explicitly:

> "To live with such diversity is part of our history. Not coincidentally, the concept of cannibalism, originated from Brazilian Modernism, points to a peculiar ability to re-elaborate cultural symbols and codes from several contexts. Differently than other people of the world, we have a remarkable ability for hosting and transforming what is initially unknown." (Ministério da Cultura, 2008, p.10)

The plan highlights networked computers as a mean for including more people on cultural production. By lowering the costs of production and distribution, computers were seen as an alternative media for representing the diversity of Brazilian subcultures. The plan itself was debated online through an official website, where any citizen could give his opinion, an action with no precedents in Brazilian government.

By the time the plan started to be discussed, less than 13% of Brazilian homes had Internet access (CGI.br, 2005). Internet was used at work or at school, when available. It was not until the rise of social networks that Internet was considered a major entertainment media. The most successful social network in Brasil, Google's Orkut, motivated many people that never touched a computer before to go to lan-houses or even purchase their own computer and pay for Internet access. Orkut offered a personal profile, where any other user could leave a message. Because they were all public, users kept coming back to clean the profile from undesired messages and to update friends about changes in their lives. Orkut had also user created communities, a shared spaces where any topic could be discussed.

Being originally targeted at the United States market, Orkut was the scenario of a symbolic war between Brazilians and Americans. Every week, Orkut published a ranking of country usage. When Brazil begun to rise up on the list, Brazilians started campaigns to invite new members to the network. They expected that if they had a big amount of users, the system could be translated into Portuguese. In protest with the long wait, some users entered English-speaking communities and posted spoof messages in Portuguese. There was a roar among Brazilians that if they changed profile nationality to United States they would not endure system instability, which was frequent at that time. At the end, Americans gave up using this social network and Google transferred its development to their Brazilian office. Nafus et al (2007) provides a more in-depth account on how Brazilians think they have "conquered" Orkut.

After this episode, the popular invasion in social networks is called "orkutization" in Brazil. Those who migrated to newer social networks like Facebook or Twitter are afraid that these networks will become filled by irrelevant content and impolite behavior in the same way. The "orkutization" meme still has some reminiscences of a cultural elitism that negates popular manifestation as part of the culture.

Gilberto Gil, as the Minister of Culture, took a pioneer approach when, still in 2003, recognized digital technology as a crucial concern for culture development. Gil celebrated the encounter and hybridism of multiple cultures in his earlier song Through the Internet (1997). Instead of reproducing the Internet surfing hype that came from abroad, the song expressed a desire to make a raft, in order to navigate together and promote an intercultural debates. He was pretty much worried on enabling making things together. One of the first actions as a Minister was to establish a partnership with Creative Commons, a United States non-profit organization that elaborates licenses for cultural production. Soon after that, he published his own music album with that license, stimulating anyone to use samples from his music tracks. He saw the emerging Digital Culture as:

> "The polarity between a conceptual, philosophical, political, and cultural discussion by one side, and how Brazilians peripheries - how young people - reacted to the Internet in this cultural dimension by the other side."
> (In: Savazoni and Cohn,p.308)

But Gil was not alone. At the same time, the National Information Technology Institute (ITI), lead by the sociologist Sérgio Amadeu, was fighting hard to substitute proprietary software for Free Software equivalents at governmental institutions. They partnered together to create a multimedia authoring kit based on Free Software to be distributed – and mandatory – at Culture Points, a network of independent cultural producers created by the Ministry of Culture. The network also articulated non-official networks like des).(centro, Metareciclagem, and Estúdio Livre who pretty much endorsed cannibalism in Digital Culture.

FIG. 3. GAMBIOCICLO, A PORTABLE DIGITAL GRAFITTI PROJECTOR BY GAMBIOLOGIA GROUP, ONE OF THE ARTISTS OF THE GAMBIÓLOGOS EXHIBITION (2010).

Free Software, Creative Commons and Collaborative Media became widespread in Brazil. The popular practice of *gambiarra* (kludging) and *jeitinho brasileiro* (how brazilians call their loose way of solving problems) were resignified in face of *hackerism* and *collaboration* from the pervading global digital culture (Boufleur, 2006). In spite of not having an overall theoretical background, *gambiarra* and *jeitinho* can be seen as profoundly apt counterparts to certain treats of hacker culture, specially the hands on approach. In 2010, the exhibition Gambiólogos attracted a lot of international attention to Brazilian artists working with *gambiarra* tactics (Figure 3). Gilberto Gil believes that Brazilians have discovered a way to live with contradictions that is terribly suited for current global economic instability:

> "Today we can see a brasilification of the world, the way of being tragic like Brazil, being happy and sad at the same time. Sad tropics of carnival happiness. This capability of living the tragic contemporary post-modern was possibly anticipated here in Brazil (...) This was mocked by early advocates of modernity for Brazil, a definitive configuration as a modern country, with a very defined national identity. Today it's not possible to negate that Brazil has born to be a universality, not a nationality."
> (In: Savazoni and Cohn, p.308)

CANNIBALISTIC INTERACTION DESIGN

Despite of being open for that, the Digital Culture movement in Brazil lacked enduring discussions and explorations on the design of the acclaimed digital media. Unfortunately, Design schools were not engaged with the movement. Although there are strong Industrial Design schools in Brazil, most of them followed the modern agenda of Bauhaus and Ülm and would not be prone to endorse the proposals of the Digital Culture movement: amateurism, shared authorship, open licenses, remix, popular culture, kludges, and so on. Inspired by European Design schools that embraced the Digital Culture, like Ivrea Institute and its successor, Copenhagen Institute for Interaction Design (CIID), a multidisciplinary group founded Faber-Ludens Institute for Interaction Design in Curitiba, in 2007. Run without any institutional funding at the first year, activities were primarily held on the Internet, where a website and a discussion list was opened. Members of the discussion list organized themselves to translate basic texts on Interaction design because most Brazilians don't read English. A wiki was born out of that, including later information about methods, tools, books and movies that members wanted to share.

In partnership with a Colombian University, Faculdades San Martín, and a Brazilian University, Universidade do Contestado, Faber-Ludens begun offering a graduate course on Interaction Design. The curriculum was structured to offer a strong social background, emphasizing Interaction Design role in culture production. Each theoretical course was accompanied by an experimental design project. All assignments required students to publish their works on Faber-Ludens website, where non-students community members could comment. The same with teaching materials.

Non-student members reported learning by following published projects. Although projects were published under a Creative Commons License, some ideas were copied without giving any credit. Instead of trying to regulate that cannibal practice, Faber-Ludens stimulated even more its students to publish their projects, document the design process step-by-step, and build on top of ideas from other students. Faber-Ludens had the hard task of pioneering Interaction Design in Brazil, so its founders believed that spreading the practice was more important than being credited.

Since the beginning, Free Software communities inspired Faber-Ludens founders, but they lacked an integrated vision and theoretical systematization, which was later found on the work of Vassão (2008).

THE METADESIGN CHALLENGE

During his doctoral work, the architect Caio Vassão (now part of Faber-Ludens hall of teachers and researchers) developed a concise and precise theory to Open Innovation, which he called Arquitetura Livre. It's loosely based on Free Software Movement's approach, explaining and expanding them through post-structuralist philosophy. It deconstructed Metadesign, an abstraction mechanism that is responsible for the formalization of

many aspects of our urban life (Van Onck, 1963; Virilio, 1996), to reveal that, at a certain level, formalization turn into a banal thing and a new cycle of unpredictable and innovative appropriation follows (Vassão, 2008).

Vassão was worried that Metadesign could turn into a totalitarian approach for behavior control. Arquitetura Livre was meant to provide an ethical background for designers interested in dealing with Metadesign issues. Inspired by Merleau-Ponty's Phenomenology (1996) and Deleuze's and Guattari's Nomadology (1995), Vassão proposed that the body should be considered the fulcrum in which every creative considerations should hinge upon. Given that knowledge is precarious and faulty, our most profound frame of reference is the direct, first-hand, bodily experience. In other words, a hands-on approach is the most powerful and legitimate form of design (Vassão, 2007, 2006, 2009).

From this embodied perspective, cannibalism is not anymore a metaphor, but a real possibility of extending design skills. Lynn Margulis' works on the evolution of primitive life-forms suggests that one possibility for early life to become more complex is through "eating without digesting": a simple being would try to eat another being, and, in some cases, it would not digest its prey - they would became symbiotically intertwined (IUPUI, 2002). In the same way, people can use technology as an instrument to control the environment, and be subject of alientation, as Frankfurt School denounced, or they can embody themselves into technology, becoming one with their tools, effectively creating a new more complex body (Vassão, 2008, 2010). The creation of new bodies, thus, can only be understood from a poetic perspective.

Vassão proposed such perspective to Interaction Design in order to legitimate the artistic experimentation of new ideas, products and services. It contrasts the rational design and evaluate program of Human Computer Interaction (HCI), which is still influential in Interaction Design. HCI developed a body of knowledge on the relationship between users and computers, but it says little on how to make technology appealing enough that people would want to make part of their own bodies. Despite of its shortcomings, HCI has been largely appropriated by Interaction Design, and vice-e-versa - often without acknowledging each other, a classical case of cannibalism between disciplines.

An example of this cannibalism is the birth of the Graphic User Interface (GUI). The GUI has been developed during the 1970's at PARC, a laboratory that applied HCI theory to develop new products for Xerox company. The company didn't perceived the value of the GUI technology, so it allowed Apple Computers to visit PARC and see what was going on there. Steve Jobs, CEO of Apple at that time, saw a great opportunity on using GUI to enable the appropriation of computer power by ordinary people and, after visiting PARC, started a project of a personal computer based on a GUI called Liza. Due to internal political changes at Apple, Steve Jobs lost his position as a CEO of Apple and also control over the Liza project, which he thought it was going in a wrong direction. In a radical attitude, he started another personal computer project at Apple, which was later

known as Macintosh. The Macintosh team digested ideas both from Parc and Liza and ended up delivering a better product than their predecessors. The Macintosh was based on voracious cannibalistic practices, which continued after the product's launch with all the new appropriations that personal computers were subject to in their users hands. Until today, Apple consumers expect very anxious for new products to amplify their bodies.

DESIGN LIVRE

Despite of offering easy to use interfaces, Apple products don't offer too much customization possibilities for their users. Both hardware and software are locked in for incisive appropriations. Advancements are all developed under secrecy and patented as soon as possible. At the other hand, Apple opened their application distribution system to basically anyone who wants to distribute a piece of software, sharing the profit in a very transparent way. Also, Apple effectively develops more than 200 Open Source projects with its developer community. Many commentators have described Apple as an ecosystem of multiple smoothly interconnected developers, consumers, applications and data. In fact, it has grown enormously by choosing wisely where to open and where to close for interferences from the environment.

Although Apple sell products to the whole world, it's firmly rooted on the Silicon Valley, with has a culture of it's own, even in the United States. All of its admired products have only been possible because this company articulated so well in that culture. Any attempt of reproducing this model in a different culture would risk failing terribly. Irrespective of being constantly used as an example of good Interaction Design by interaction designers, the Apple model could only be useful to Brazilians after a good digestion.

Design Livre is Faber-Ludens attempt to rethink Interaction Design from a Brazilian culture perspective. It's not a theory, nor a practice. It's praxis: a set of attitudes that are consistently taken by people in their activities. The Design Livre book (2012), written by Faber-Ludens community, identified some patterns in reference projects in Brazil an abroad: Do-It-Yourself, mass customization, user participation, local production, sharing source-codes, gambiarra, self-maintenance, accessible documentation and conscious consumption. These patterns are not a set of requirements for Design Livre to happen, but a snapshot of current related trends. Amstel (2012) summarizes it in a set of three attitudes: being critical about the status quo, developing autonomy, and dreaming with a better world.

The name is kept in Portuguese for historical reasons. "Livre" could be translated into English as "free", but this word has double meaning: the quality of freedom and no cost. If we called it Free Design, we would risk having the same problem that Free Software had before: being understood as cheap. If we adopted one of the Open Design definitions (Abel et al, 2011), we would end up leaving out the ethical debate that the Open Source term skipped (Stallman, 2009), and hide up the cultural context where it emerged. It's important to mention that the "design" word has been first translated as "desenho" by Bra-

zilian Industrial Design Schools, in consonance with the modernization of the national identity during the 1960's and 1970's. Because the first mean of "desenho" in the popular vocabulary is the same as "drawing" ⁄ and professional designers wanted to emphasize that they do more than drawing, the word "design" became gradually more used, to the point of being officially adopted by the professional regulation of 2012. Design Livre, thus, is a hybrid that brings back the digested "design" word from Brazil.

Aiming to support Design Livre projects in other organizations, Faber⁄Ludens Institute created Corais Platform[1], a web application based on Free Software that offers free infra⁄structure for anyone that wants to conduct a public collaborative project. When Corais was launched in 2011, there were already good web applications for collaborative work, like Google Docs and Basecamp, but they kept important design knowledge closed inside login routines. They weren't adequate when the project expected collaboration of unex⁄pected voluntaries, like in GitHub, a programming code repository. Instead of sharing programming code, the proposal of Corais was to share the design code. This simple shift lead to a not yet finished debate: what is the code of design? If design is not the drawing itself, it shouldn't be the Photoshop file either. The Open Design proposal of sharing 3D files wouldn't be enough, although that was an important part of it. Without knowing the rationale for the designed result, it would be hard to continue the design process. That is also an issue for Free Software, as many projects lack proper documentation, but is even harder for Design Livre because there are no standards for documenting design code.

Instead of defining such standards and imposing them on projects ⁄ something that would be hardly effective, Corais captures the design rationale during communication between participants, an idea that has been used extensively in design research to analyze how de⁄signers think (Schön 1987, for instance) and to help groups deal with wicked problems (Rittel, 2010). When participants discuss a product's storyboard (Figure 4), they share comments and images, which are recorded in a chronological history of the project. Eve⁄rything that is generated through this collaborative process is accessible not only by project participants, but by any website visitor. An user of a product designed in Corais could come there and learn about it enough to transform it in another thing.

In the long run, researchers could study the sum of captured design rationale like linguists work with language corpora and contribute to understanding the nature of design codes. Corais already has a space where this knowledge can be shared: a wiki with general de⁄scriptions of design knowledge. Currently there are five categories: Design Documenta⁄tion, Design Tools, Design Games, Design Methods, Design Techniques. This wiki can be connected to the project environment when a participant mentions explicitly a = described knowledge in the discussion. The participant can go to the general description,

[1] "Corais" stands for "coral reefs" in Portuguese. is based on the distribution Open Atrium of the Drupal Content Ma⁄nagement System. Accessible at http://www.corais.org.

learn something new, come back to the project, and apply it immediately. Another possibility is to start from the general description and see all the linked projects, giving a rich set of examples of the knowledge in action. Currently, there are dozens of wiki pages on methods for including users that would not be interested or knowledgeable enough to partecipate in Corais by themselves, like Focus Groups, Usability Testing, Future Workshops, and Ethnographic Study.

FIG. 4. DISCUSSING THE EXPERIENCE OF A CARD GAME THROUGH COMIC STYLE STORYBOARD IN CORAIS PLATFORM (2011).

Corais is developed with the intention of facilitating learning design while doing. Participants have the opportunity to design their own design process by combining the design knowledge shared by other projects with the collaborative tools available. Members learn not only how to design, but, most important, how to design a design process, the Metadesign studied by Vassão (2008). When a project stops by any reason, it still contributes to future projects by leaving the traces under the specific design structure created for that project. Because all the content is licensed by Creative Commons, cannibalizing structures is not prohibited. Like in real coral reefs, the structure is alive, changing all the time, but when it dies, its skeleton is used as a base for new beings. A structure that serves many entities becomes stronger and stronger. Corais can be conceived as an ecosystem that adopts an evolutionary development process, where collaboration ‑ and not competition ‑ selects the best structure available.

CONCLUSION

The cannibalism metaphor has been used to interpret Brazilian cultures in important historical moments, proving to be a fruitful concept to understand and produce cultural hybridism. If ideas and technologies can be considered parts of the human body - as cyborg experiments suggests, then cannibalism is not any longer a metaphor, but a real phenomena. When ideas and technologies are part of human bodies, they become alive and develop further. If they are not used, they die.

Design Livre proposes that cannibalism should be encouraged - instead of prohibited - in design practice and education, in an attempt to give an after-life for projects. When practiced with the same honor that Brazilian aboriginal dedicated to their eaten enemies, cannibalism can foster collaborative environments, where everyone profits from working together. It legitimates copy and plagiarism, which were so important for recent innovations in arts and technology development (Critical Art Essemble, 1994).

As we create this post-humanist reality, we should keep in mind that "we stand in the shoulder of giants", as Linus Torvalds once explained the success of the Linux Free Software Operating System, a phrase repeated by many other important figures across the last millennium, each in a different cultural situations, each with a different meaning, but all of them with the same appreciation for the Other.

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