Expressive Productivity in Videogames: Benefits from Applied Research in Normative Studies

(Concisão e Produtividade Expressiva em Videogogos: vantagens de um estudo normativo de Investigação Aplicada)

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Resumo

De momento a intenção comunicativa de um videogame acaba por ser mais a que surge por defeito nas fases de prototipagem, e menos a que origina com a própria iniciativa de projecto de design e desenvolvimento. As demais Indústrias Culturais apoiam-se num conjunto completo de instrumentos de design de todos os quadrantes do conhecimento arteológico. Isto não acontece nos videogames, onde há brechas no continuo empiria-teoria. Este Full Paper destina-se a delinear uma Investigação Aplicada de Estudo Normativo-Expressivo com o fito de delimitar o território expressivo nativo dos videogogos, estabelecer padrões para os mínimos indispensáveis de esforço comunicacional para cada um dos aspectos expressivos de um videogame e dotar os projectos de desenvolvimento de uma base disciplinar sólida a partir da qual desenvolver esforço expressivo com o máximo de aproveitamento e produtividade.

Abstract

The communicational intent that persists in a shipped videogame title tends to be whatever the recursive design iterations default to, as opposed to the intent set for the development project at its inception. Design practice in Cultural Industries other than videogames is supported by all the different aspects of arteological knowledge and the full range of theoretical design instruments thereof. Gaps in the required empiria-theory continuum prevent this in videogames. This Full Paper aims to provide an outline for Applied Research in Normative-Expressive Studies for purposes of mapping out the boundaries of the expressive territory native to videogames as well as developing design patterns for baselines in communicational effort in a videogame. Videogames would then become endowed with a solid methodological basis for efficacy and productivity in their expressive efforts.

Palavras-chave: Metodologia na Concepção de Jogos Digitais, Arte, Estética e Design de Jogos Digitais, Estudos sobre Jogos

Keywords: Videogame Design Methodology, Art, Videogame Design and Aesthetics, Videogame Studies
Introduction

It is an uncertain prospect to get a message across by means of a videogame, to communicate, to convey an agenda, or a topic, or a certain kind of sensitivity in videogame form. The outcomes of design and development cannot reasonably be expected to match the initial communicational intent set for a given videogame development project, in that a given videogame design by itself does not ensure that communicational intent will translate into the finished, implemented, playable videogame ready to ship.

With the present normative-expressive insufficiencies of Videogame Design Theory (case-by-case design methodologies throughout the industry), time and resources for a given videogame development project will be expended largely in designing and proofing a purpose-built design framework for designing a videogame, rather than in designing the videogame-artifact itself. This creates lack of productivity in expressive labor and compromise for innovation and meaningfulness in the contribution to the medium being made.

For an institutional or non-profit project or a mid-scale commercial development project (which sets itself up for the expectations of larger studios but without the same resources), the lack of normative-expressive theory tools means that developing the approach to the object of study, be it artistic commentary and dramaturgic exploration, scientific research or the pursuit of training and educational results, will often fall to the wayside as development resources and effort are exhausted in merely reinventing the wheel in videogame design methods. The means through which the message is conveyed (videogame) takes precedence in resources, work and development over the actual purpose of the message (to convey a precise set of cognitive habits and ordered contents).

This paper will strive to identify the normative-expressive shortcomings in the relationship between videogame theory and videogame design and development. In addressing these shortcomings, a number of interrelated research outcomes can be defined in their relevance.

Such outcomes could consist of prerequisites for the development of normative-expressive models. These models would work towards the productive application of development
resources towards finality of purpose for specific game designs from a communicational standpoint. Ultimately, the models could aid in a resolution to the conflict between preset narrative structures and freedom for the end-user (Louchart, 2003, quoted by Zagalo, 2009).

**Theoretical Design Instruments and Videogames**

Despite the increasing number of available development tools and platforms and the greater ease with which a given development project, even a non-profit project, can mobilize a skilled developer workforce, the process through which communicational intent is achieved – the communicational and expressive labor of a videogame – is vulnerable in the context of the shipped title, in the sense that there are no industry-wide methodological baselines to ensure that a project’s stated communicational and expressive goals survive the development cycle and the project remains true to its initial intent.

Mikolaj Dymek (2008) establishes videogames as a Cultural Industry in their own right. Dymek deems the organizing theory of other cultural industries as being ill-suited for appropriation by videogames, while attesting to the inability of theoretical perspectives internal and exclusive to videogames to adequately support and sustain development praxis. Dymek concludes – after reviewing extant work in videogame studies – that the volume of research which can directly and effectively translate into new avenues for design and practice as being “limited” (Dymek, 2008), and that the remainder of work occurs chiefly in an informative capacity, observing extant videogame phenomena rather than actively shaping the immediate future of videogame phenomena.

What’s missing is therefore for videogame practice and videogame theory to resolve themselves into a continuum of knowledge production and knowledge application, in which a two-way flow of arteological (artifact-oriented) study allows for enduring normative models for preemptively assessing what is the minimum required pressure of language (implementation effort invested) needed to achieve communicational effect.

For the conditions described above to occur, the boundaries for the native expressive territory of videogames must be defined in a useful, enduring fashion. Once these boundaries have been set, an empiria-theory flow of design knowledge comparable to that of Cultural Industries as disparate as furniture, architecture or utilitarian software design (Routio, 2005), can then be realized for videogames.
With a sense of the precise communicational boundaries of videogames setting the stage for enduring normative models for videogame design on par with what other Cultural Industries can take for granted, a number of strides towards genuine ubiquity and openness of videogame development would occur.

Routio explains that Cultural Industries need to continually heighten finality of purpose in order to stay relevant. Normative work translates more efficiently into finality of purpose in design and that is why most Cultural Industries tend to produce a disproportionate range of normative studies versus informative studies.

Videogame Theory could benefit from a greater slant towards normative work. Normative Models, particularly those of a normative-expressive and communicational nature, could allow videogame development projects to focus more on being consequential for the medium’s advancement – in the sense of purpose that is retained in the shipped title – instead of having to reinvent, to an extent, the very nature of the videogame-artifact in the scope of each new project.

Nomothetic knowledge is made up of such design instruments as design manuals which were intended as such from the get go (in abstract and not merely an individual practitioner retelling his experiences), regulations and standards (which in videogames only for HCI do standards seem to go beyond rules of thumb) and best-practices and guidelines put forth by industry oversight institutions or stakeholder associations. According to Routio (2005), nomothetic knowledge will generate design instruments which defined themselves first and foremost in how they can be applied to the industry: with perfect evenness and regularity, and transversally to the medium and intent on staying power. As for idiographic knowledge, it will only be construed as a design instrument a posteriori, since it consists of practitioner stakeholder testimonies (which tend to be as close as videogames usually come to design manuals), rules of thumb, frameworks, exemplary specimens of production output for the industry in question, prefabricated components (middleware and asset-production studio subsidiaries) and Quality Assurance checklists. Even though idiographic knowledge is eminently practical in nature (it does not originate with a mandate to prescribe normatively), it still contains, in its every form, theoretical knowledge (Routio, 2005).

A normative model for videogames would always be in a position to prescribe from a product-specific but industry-wide paradigm to the day-to-day of the studio (nomothetic
knowledge). Presently videogame knowledge tends to consist of industry best practices or otherwise locally-prescribed knowledge (idiographic knowledge). Locally-prescribed models will lack the perspective to clearly define a target for transformative action in design and development practice and mores.

An act of communication, regardless of whether in videogame form or not, requires a set of expressive coordinates to map itself onto, a sense of where the message “is coming from”. The sense of stance required for effecting communication could start being achieved in videogames through a consensual syntagmatics for the medium, and not waste power and precision of communication in trying to exert leverage against an ill-defined idea of what is the nature of the videogame-artifact.

The product paradigm must be representative of the whole of the medium’s design knowledge, and harness that knowledge in the fullest for industry praxis to remain consequent, and so cannot do without nomothetic knowledge and idiographic knowledge both (Routio, 2005).

**Videogame Arteology versus Communication**

Videogames are active in production of idiographic knowledge, and are building up sufficient critical mass in nomothetic knowledge, but a few decisive steps need to be taken for normative-expressive models to come into their own for videogames, chiefly in ensuring a greater availability of nomothetic instruments for effecting communicational finality.

Design manuals, which in other Cultural Industries tend to benefit from a large pool of nomothetic knowledge, have in videogames been largely based on idiographic material.

Videogame Design manuals such as “Game Design: Theory and Practice” by Richard Rouse III (2001) or “Rules of Play: Game Design Fundamentals”, by Katie Salen e Richard Zimmerman (2003) tend to largely deconstruct exemplary specimens of Industry output from the medium-historic standpoint of the time of the book’s writing, and gather what design procedures, initiatives and tropes in these exemplary specimens it is desirable to replicate or develop in the immediate future of production for the medium. Complete reliance on exemplary specimens is the hallmark of idiographic knowledge.
Normative knowledge-gathering resources such as Falstein and Barwood’s “The 400 Project” (2001), settle for a broader-scope study with greater granularity, in which videogame design rules of thumb are amassed over an extended time period. These disparate rules of thumb are far too granular to effect real normative power.

Videogame academic research and theory has encoded a number of finished normative models for supporting the videogame design process in general. Platform Studies such as those by Michael Nitsche (2008) and full-spectrum studies of exemplary specimens like those of Bogost and Monfort (2009) represent work towards genuine nomothetic reach in videogames, but it will be years before they provide a sufficiently exhaustive account of the attendant conditions of the medium to fulfill a nomothetic sense of mission. Furthermore, while knowledge of all attendant conditions for the use of the artifact can certainly aid in establishing a stance form which to communicate in videogame form, these studies are yet to address communication and expressive productivity all by itself.

Recent years have seen theoretical models meant to wholly shape and inform design and development on the factory-floor of the studio. These models are manifestly practice-oriented and tailored to needs which occur in development cycles throughout the industry.

Mechanics, Dynamics, Aesthetics (MDA) as proposed by Robin Hunicke, Marc LeBlanc and Robert Zubek in 2004, seeks to reign in all aspects of design in its proprietary typological breakdown of the videogame artifact. The internal operant phenomena which generate effect for a videogame are accounted for, but only in their functional aspects; MDA makes no attempt to contemplate what lies beyond the artifact itself, such as expressive productivity, and furthermore requires that the entirety of conceptualization and design efforts utilize it as their normative framework. MDA cannot be parceled out; it can only be utilized in full and throughout.

Heuristic Evaluation of Playability (HEP), as developed by Heather Desurvire, Martin Caplan and Jozsef A. Toth (2004), is a notational instrument of design (verification) which is meant to mitigate the reliance on iterative design (playtesting and prototyping) of videogame development. Despite the relevance of HEP in decreasing the weight of playtesting, Desurvire et al. conclude after field-testing that the HEP algorithm is admittedly “best suited for evaluating general issues in the early development phases with a prototype or mock-up”. With its scope lying with such specific moments in design and development, HEP cannot be construed into normative oversight of design. HEP is
fundamentally built to check conditions of gameplay as it relates to HCI, not as it relates to expressiveness and power and precision in communication. HEP, addresses a high-level attendant phenomenon of the videogame artifact (gameplay), and therefore is just too specific to prescribe from a true nomothetic standpoint.

Scope of Normative Work

The very first step in creating theoretical design instrument resources for increasing efficiency in expressivity and power and precision of communication for videogames is to address field-building issues. While field-building has been the object of a significant portion of videogame academic research, it would take a dedicated expressiveness- and communication-oriented effort in field-building to prepare the ground for a normative-expressive model. Efforts in field-building for videogames have been directed at formal issues, not issues of expression.

Gonzalo Frasca (1999) identified the expressive power of videogames as resulting from a fundamental tension between ludology and narratology in videogames. Ian Bogost (2009) classifies Frasca’s characterization of ludology and narratology as being spurious, and dismisses the idea of an enduring tension between the two at the core of the videogame-artifact since one can be regarded as subset of the other, and narratology is not really a verified phenomenon in its field of origin (literary theory) before being grafted onto videogames. Bogost furthermore argues that the tension between narratology and ludology feeds of its own polemic rather than a genuine polemic occurring at the heart of the videogame artifact.

The purpose of the communication-minded exercise in field-building would be to engender an enduring, artifact-oriented normative-expressive model for videogame design, one that can yield benefits in openness and accessibility to design efficiency to match the openness and accessibility of development tools. But the setting of boundaries for the native expressive territory of videogames would only be the first stage. The stage to follow would be to build upon the native expressive territory of videogames and produce design patterns.

These design patterns (normative-expressive and nomothetical) would focus on endowing productions with greater autonomy in instruments of virtualized and conceptual prototyping, and conversely decrease reliance on a full-size regime of physical
prototyping. This, in addition to facilitating the prosecution of specific, highly-constrained communicational goals, which productions are always under pressure to carry on as efficiently and with as little expenditure of resources as possible.

**Conclusion**

Applied Research in Normative Videogame Studies could conceivably produce first design patterns and then a working normative-expressive model able to ensure openness and ubiquity of videogame design in the same way there is openness and ubiquity in development tools. The achievement of openness and ubiquity in design would allow for the greater communicational efficiency required by mid-scale production and non-profit institutional production with pedagogic, artistic or scientific goals which would make use of the model. Such a normative-expressive model would have to establish itself as a unified product-paradigm based on nomothetic knowledge able to first match and then exceed the currently predominant idiographics-based product-paradigms in videogames. This would be achieved through three successive research plateaus.

The initial research plateau would consist of tracking specimens representative of the medium’s output across all stages of design and development, from the declaration of intent, purpose and design goals for the project, to design, planning, organization, development, implementation, testing and shipping out of a playable, finished artifact, as well as the rapport that artifact establishes with the end-user and addressee of the message, and the attendant conditions for that rapport. This would provide the background for the normative model and aid in defining targets for positive transformative change and subsequently defining an action plan.

The intermediate research plateau would necessitate for each target for transformative action to be addressed by a specific communication-oriented design pattern. Patterns would have to account for how a given videogame achieves intelligibility by the end-user (addressee of the message in videogame form), provide oversight and guides for managing and designing the relationship between user and avatar (or other container-metaphors for player agency) in a meaningful yet tersely useable fashion. Additionally the patterns could also serve to demystify the face-value of realism and immersion and instead create avenues for compelling psychological flow at a higher-level, harnessing a broader swath
of the expressive components of a videogame (and not just audiovisual fidelity and physics) and doing so in a more sustained, enduring fashion. Lastly patterns should address how self-referential videogame discourse should be (metanarrative or a videogame commenting on its own narrative tropisms) and how a videogame positions itself towards the end-user (provocation, solidarity, more commercial, more towards serious gaming).

The final research plateau would necessitate that the communication-oriented design patterns be articulated into a normative-expressive model able to fulfill the stated goals of the applied research. This way, a working continuum between empiria and theory as found in arteological perspectives of Cultural Industries would be established.

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