CONSIDERATIONS ON INFORMATION ARCHITECTURE IN THE AGE OF UBIQUITY

Luiz AGNER, DSc. (PUC-Rio)

Faculdade Senac Rio - Graduação Tecnológica em Design
E-mail: <luizagner@gmail. com>

Ergodesign, UX, ubiquity; pervasive information architecture

1. Introduction

We live in a world in which the relationship among people, places, objects and companies are shaped through semantics and not through physical proximity, where digital identities persist in cyberspace beyond our interaction with a computer screen. In this context, pervasive Information Architecture (IA) has become a post-modern theme: concepts of IA evolved or had their meaning expanded, resignified. Being pervasive, IA must be consistent to a complex ecology - comprised of applications, mobile, ubiquitous devices, websites, wearable, connected home utilities, as well as other customer touch points with transmedia narrative of brands and organizations. It outlines an enormous challenge that UX designers and information architects face in the task of rethinking their processes.

2. **Theories and Discussions**

Information architects are considered professionals who are dedicated to improving the communicative potential of information technologies. Practicing information architecture presupposes activating the process of facilitating people and organizations to carefully consider their structures and language. Information architecture (IA) is present in user experience design (UX), technical writing, content strategy, librarianship and interaction design. For this, information architecture has received valuable conceptual contributions from several fields, such as information science, ergonomics and human-computer interaction - seeking to ensure user success and satisfaction - and professional practices , such as the UX design. As an activity that emerged in the context of postmodernity, IA involves a strong interdisciplinary component.

Rosenfeld, Morville, and Arango (apud Santos and Agner, 2017) emphasized that information has become more abundant than ever in our lives: we have smartphones, tablets, physical activity monitors, smart clocks, augmented and virtual reality and a series of devices and objects connected to the Internet for all kinds of daily activity or routine, in our residences, offices or urban spaces, which has come to configure new and diverse ways of interacting with information. It is therefore imperative to develop a systemic and holistic approach to structuring information so that it becomes easy to find and understand, regardless of the context, channel or device accessed by the user - since the experience of using products and services have expanded.

Nowadays, the hybridization of physical and virtual spaces, as well as the path created through different channels and media, led Resmini and Rosati (2011) to enact the notion of pervasive information architecture. The authors explain that information architectures do not escape the notion of "ecosystem". This means that when different media and different contexts are strongly interconnected, there is no artifact, channel or device that can be considered as an isolated entity. Each is owned by a larger ecosystem, a media ecosystem. The idea of information architecture as an "ecosystem" was contemplated by Resmini and Rosati (2011) in his manifesto.

It should be noted that in the fast-paced technological revolution, consumer behavior is changing. Users not only search, access and use information. Since the advent of Web 2.0 and the emerging participatory culture, they cite, create, reinterpret, edit, mix and recreate information through a variety of interconnected channels. Users have become prosumers and information, transmedia. The narratives in this environment tend to be transmedia, as Jenkins (2008) taught in his book on Convergence Culture. The concept of pervasive information architecture emerged as a

consequence of this process of convergence.

“Users are now contributory participants of these ecosystems and actively produce new content or remedy existing content through links, mash-ups, comments and criticisms. The traditional distinction between authors and readers, or producers and consumers, is invalid” (RESMINI and ROSATI, 2011).

From these concerns, Resmini and Rosati (2011) presented us with five general guidelines for the design of an efficient pervasive information architecture, detailed in this article.

3. Initial Conclusions

The concepts of information architecture with which we work evolved, or had their meaning expanded, resignified, adapting to the times. The architect is no longer limited to producing "deliverables", such as wireframes, taxonomies or sitemaps, to document the proposed structure of information. It is known that it is now pervasive and must be consistent for a complex ecology - composed of applications, mobile and ubiquitous devices, websites, wearable, connected home utilities, as well as other customer contact points with the transmedia narrative of brands and organizations.

Morville (2014), seminal author of the field, has been one of the great advocates of the holistic vision for information architecture; more now, when informational ecologies arise from multiple intelligent, interlaced and interconnected services and devices.

The Internet of Things has come to place in the bosom of human-technology interaction the advances, benefits, problems, and risks brought about by artificial intelligence and technology-technology interactions. The opportunities for the intervention of non-human actors that tend to impose their logic on us are proliferated every day in our socio-technical environment. The sheer volume of information produced and cross-traced data across multiple devices and networked objects can be shared across multiple applications, processors and sensors, connected to the environment around us, including risks to our freedom and privacy. The various media converged and the connections intertwined with full force: each artifact, product, data, information or service is now part of an ecosystem and as such should be considered by the information architect, whether the physical or virtual environment.

The impact on the design will be strong. As users are in a movement of unceasing change, moving from physical to digital and vice versa, all communications become cross-channel, employing the holistic and ubiquitous approach to products, services and brands.

There is a huge challenge that puts UX designers and information architects in the face of rethinking their processes so that every artifact, product, or service will work in a seamless flow of interactions within an emerging system where old and new media collide, the now converging physical and digital are projected, delivered, and experienced as an integrated whole. This seems to be the task of the new information architecture.

4. References

AGNER, Luiz. Algumas considerações teóricas e práticas sobre Arquitetura de Informação. In: PINHEIRO, Lena Vania Ribeiro; OLIVEIRA, Eloísa da Conceição Príncipe de (Orgs.). Múltiplas facetas da comunicação e divulgação científicas: transformações em cinco séculos. Brasília, DF: IBICT, 2012. Cap.4, p. 267-292.

AGNER, L.; MORAES, A. (Orientador). Arquitetura de Informação e Governo Eletrônico: diálogo Cidadãos-Estado na World Wide Web - Estudo de Caso e Avaliação Ergonômica de Usabilidade de Interfaces Humano-Computador. Rio de Janeiro, 2007. 354p. Tese de Doutorado - Departamento de Artes e design, Pontifícia Universidade Católica do Rio de Janeiro.

JENKINS, Henry, Cultura da Convergência. São Paulo: Aleph, 2008.

MORVILLE, Peter. Intertwingled: Information Changes Everything. Ann Arbor: Semantic Studios, 2014. 188p.

ROSENFELD, Louis; MORVILLE, Peter; ARANGO, Jorge. Information architecture for the Web and beyond. 4rd. ed. Sebastopol: O’Reilly, 2015.

SANTOS, Diana; AGNER, Luiz. Arquitetura de informação e convergência jornalística: estudo da taxonomia do jornal online ‘O Dia’. Revista Ergodesign & HCI, [S.l.], v. 4, n. 1, oct. 2016. ISSN 2317-8876. Disponível em: <http://periodicos.puc-rio.br/ index. php/ revistaergodesign-hci/article/view/61>. Acesso em: 30 aug. 2017.