Crossing Boundaries: Implications for the Content Industries

Executive Summary

Content professionals are facing the breakdown of traditional boundaries that affect their subject matter as well as their professional functions. Among the issues that are influencing this evolution are:

- Physical space has disappeared
- Time is asynchronous
- Users become producers
- Consumers raise corporate consciousness
- Private life becomes part of professional life and vice versa

Five Challenges

In three hundred years, future scholars investigating the 21st century will probably point to the global direct interconnection between humans and inanimate objects as a communications revolution. Not only can we order a window to open at a certain time of day, or have it programed to consider the temperature before closing itself, the window can even connect to devices that will tell us if somebody breaks into our house. It can also call the police and fill our to-do list with the necessary tasks and contacts for the insurance declaration. We have a full network of objects that respond to events, are able to inform us of what's happening, define how to respond in different situations, and provide the established sequence of actions we humans are expected to perform[1]. This type of sequence not only works for daily, household activities, but also in critical situations such as medical diagnoses or traffic safety. Communicative content professionals will need to take the lead in conception, design, and interpretation of these applications, through the expert understanding of these event sequences.

This new interconnectivity demands new roles that combine both communication and content expertise. Examples include Content curator, Content manager, Community manager, and Content strategist. While some of these professions exist today, they are going to evolve radically in the very near future.

Content professionals need to investigate and quickly learn about the critical issues driving social transformation, and how they can take their place in the leadership of an emerging transformation society.

Among the most significant issues influencing this emergence, we might point out:

- Physical space has disappeared
- Time is asynchronous
- Users become producers
- Consumers raise corporate consciousness
- Private life becomes part of professional life and vice versa

We go on next to present concrete examples of how these changes are affecting our lives and what content workers need to take into account going forward.

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[1] Piscitelli, Alejando (2002), Ciberculturas 2.0 en la era de las máquinas inteligentes, Buenos Aires(Argentina): Paidós.

Physical space has disappeared

When Mark was a child, he had to memorize his home telephone number in case he got lost downtown. As soon as he started to stay alone at home, his mother pushed him hard to also learn numbers for the fire department, emergency medical care, as well as his uncle's and his teacher's numbers, as they lived in the same neighborhood. By the time he got his first job, he already knew several of his best friends' telephone numbers by heart and could call half his family's offices without consulting his agenda.

Mark now works as a freelance trainer on content management systems. He doesn't really know his friends' telephone numbers anymore, and in some cases he doesn't really know in what town his colleagues or his clients live, but he can contact them personally in an instant. He doesn't call a house or an office, he calls a mobile person.

Ubiquity is now part of his reality, more than he realizes. With his smartphone or his tablet he doesn't need to go to the town's library to check an old newspaper, he doesn't need to meet with his old teacher to discuss different versions of his training courses, and he can even learn how to start a chain saw or how to adapt a food recipe for diabetic people instantly, wherever he is.

Moreover, he can prepare a proposal for a client on the other side of the world, and share it with him in a common virtual space that is totally deterritorialized.

He knows that he doesn't need to be in the office to work something out, and his family feels that he is available wherever he is… and sometimes it seems his clients are of the same opinion.

Future implications

The change in Mark's world, in which a telephone number evolved from a physical address to a personal identity, might seem dazzling, but by the time he decides to move to a retirement home, our notions of physical space will have mutated much more radically.

Today, for the most part, virtual space is a two-dimensional, flat screen world that appears inside multiple windows. With our mobile devices, that eventually will be embedded in our clothing or implanted in our bodies, we can feel that we are everywhere at one and the same time, and thus nowhere at all. But tomorrow we will exist in hybrid realities that combine real, physical space with virtual spaces and objects. Holographic displays that permit us to grab and manipulate data with our own, real, biological hands will change the way we relate to space, and to the content that fills it. Not only will we be able to grasp and displace virtual objects, we'll also be able to grasp text, sound, or images as if they were physical objects, and directly manipulate them to perform abstract tasks.

Space will have a different meaning when our connective devices not only beep in our ears or vibrate in our pockets to get our attention, but will pop content directly in front of our eyes, or in 3D virtual spaces around, or even on our bodies. Eventually we will get used to not only seeing a person walking down the street, talking to a distant person through his bluetooth earpiece, but seeing people sharing social events in hybrid spaces where physical humans, holographs, and virtual messages interact seamlessly as a new type of collectivity in a conceptual space.

The narrative discourse of information that is delivered as content on a flat screen is radically different from that of holistic messages that appear as virtual 3D objects. Given the mixture of real and virtual interactions that will take place simultaneously, a whole new narrative paradigm for content is likely to emerge.

Time is asynchronous

Victor works part time in a French software company that provides translation apps for mobile telephones. At the end of the day, he passes his work to his colleagues in San Francisco, who have only recently started their working day. They add images and audio in English before passing it, at the end of their workday, to their colleagues in Tokyo, who do the same for the Japanese part of the software. They then send it to be tested in India. When Victor connects the next day, after his French lunch, all this work is waiting on his screen.

The work was done in 19.5 hours, while he slept and devoted his morning to developing a personal project, a collaborative platform on the internet. He is preparing a visual content analysis module to help understand users' interactions on the platform. He sends it to an old university classmate, at the end of his morning, just before starting work at his job. His friend, who lives in New York, develops the graphics

Openness and transparency will be indispensible in the collaborative corporate environment.

Future implications

Victor's main concern in this story is to ensure consistency and continuity: his global translation software project, even when it maintains a coherent style and consistent register, demands a constant process of conflict resolution. Working across time zones automatically means dealing with different cultures and worldviews. Creating, managing, and delivering content in this context imply developing strategies for dealing with cultural and linguistic differences, translation, and other adjustments to arrive at parallel significance.

Teams working in a time-shifted international space send each other the next sequential bit of work that each has completed. They don't always know what was intended, and when the work comes back, the result might not conform to the original view. The costs of resulting conflict, discontinuity, and even rework can more than offset the benefits of working across time zones.

Victor's networking model, based on passing work from one time zone to another, is not easily scalable as he is currently managing it. If he has to track projects personally, it would be more efficient for him to have specialized teams in each location that concentrate on specific modules of the work. Fragmentation and discontinuity will need to be managed digitally. The project manager can't be the only one with a global view of the whole, with more platforms for simultaneous information sharing. Openness and transparency will be indispensible in the collaborative corporate environment. Content strategy, unified content management, and overall design thinking are going to be essential to keep asynchronous projects on track and gain advantage from time shifting.

Another challenge in a time-shifted world is to withstand pressures that can affect quality. Many experts now speak of replacing artisanal processes with industrial ones[2], but this is a complex challenge in a domain such as content creation, where the human element and pride of creation play an important role; soft skills and emotional intelligence will take on greater importance as collaborative processes become the norm.

Users become producers

Esther started using the internet two decades ago at college, when she discovered that researching on the internet was more convenient than going to a variety of distant libraries. Digital information helped her finish her Master's degree even when she wasn't able do field research.

With the appearance of blogs, forums, and other interactive tools online, Esther started to interact with others, first posting her comments, and later involving herself in some active communities of interest, where subject matter was collectively developed online for mutual benefit.

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[2] Baker, Mark (2013), "We Must Create Mutable and Addressable Content," Every Page is Page One: [http://everypageispageone. com/2013/01/13/we-must-create-mutable-and-addressable-content/ Last seen on the 15th March 2013]

More and more, Esther's use of the internet evolved so that she was adding text and photos with examples of her own work, and other researchers were starting to cite her and reference her contributions. Her inbox started to fill up with RSS feeds and email subscriptions, some of which were the result of automated processes that selected topics of interest based on her interactions.

Today, Esther haunts the social networks. She keeps up to date more easily with colleagues online than by pursuing additional degrees. She is part of a group that has developed a personal learning environment, reusing and even repurposing material from each other, and enriching them with additional content from varied sources.

People she knows nothing about are profiting from the information she has shared online, and are using it in ways she did not imagine. Data mining robots have selected bits of her production, and aggregated them with others' work to produce new informational ecosystems. The body of seemingly ephemeral exchanges in the comment section of blogs and other social media become, themselves, the raw material for researchers of the future. Esther is proud of her contribution to this body of knowledge, but is also concerned that her work, taken out of context and set loose on the net, might be misunderstood or misinterpreted. She also wonders if she should protect her author's rights for this material.

Future implications

Esther's participation has moved her from being a simple consumer of internet-based information to an interactive producer of content that has contributed added value to other users online. She may be worried that she can't keep track of what happens to her input, but she doesn't yet realize how her content is also used at meta levels. It is this information that is used to produce the profiles that choose material to push into her inbox, and conditions how her work appears in search engines. It also determines how marketing software will direct advertising and related content back to her.

In addition to her voluntary contributions, the simple fact of interacting online produces information that provides content for automatic applications, of which she has no knowledge and which are outside the realm of current intellectual property law.

So-called "big data" operates on the space where she and her colleagues have grown a whole research discipline, but she is not really aware of how much complex content she has helped to produce, simply by being part of the community of users. The huge meta-data that she and the other users have generated during these years is now a valuable content resource to serve new users. Her concern about authors' rights, in this context, seems misplaced.

"Copyright"–i.e. the right to make a copy–has become an obsolete notion, and with it, the idea of "intellectual property". We no longer need expensive printing presses or disk manufacturing plants to copy content. Anyone can make a copy at home, and digital copies can be exact, indistinguishable clones of the original. In many cases, it is almost impossible to trace original authorship amidst the huge quantity of production on the web, and it is obvious that other means of recognition, payment, and attribution for authors are going to be developed.

Professional content developers will eventually be obliged to find methods of using this same "hidden" meta-information to provide more targeted, high-touch, profiled material.

Consumers raise corporate consciousness

Yesterday, Marcy and Pam had a great time. They were celebrating the first success in their campaign to protect the local biodiversity of their favorite Natural Park. Five years earlier, when they started sending protest letters and emails to every international authority and environmental group on the net, they didn't expect that the European Union would be ready to devote 5800 million euros a year to biodiversity, as a result of the huge international outcry that led to the Nagoya protocol [3].

Marcy and Pam have started to realize how much power they can have when joining global causes. They were ready to start a new private campaign against their neighborhood supermarket for leaving several unknown bottles of what seemed to be chemical products on cardboard boxes outside the signaled recycling area, but it was not necessary; a simple tweet of open denunciation mobilized local consumers

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[3] Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee, and the Committee of the Regions. Our life insurance, our natural capital: an EU biodiversity strategy to 2020. Document COM(2011) 244 final, Brussels, European Commission. [http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0244:FIN:EN:PDF Last seen on the 15th March 2013]

Might we be entering a new era of digital blackmail, pressure, and lobbying?

Marcy and Pam understand that consumers' opinions appear in the same Google search, on the same results page, as the corporate marketing content. It is in the company's interest to maintain good reasons for users to have a positive opinion about their products, and their business conduct. Consumers are using social networks to raise corporate consciousness in response to criticism that might appear online.

Marcy and Pam have discovered that their strength comes from leadership and ability to build communities, and their power to influence collective opinion. They have been able to build a respectable group of committed followers on Twitter and other media–people from everywhere in the world who value their concern for transcendent issues such as ecological thinking and fair trade.

Companies also follow Marcy and Pam's social profiles, trying to collaborate with authenticity, to demonstrate how much openness and transparency have become part of their production process. It's in their own interest to accept divergent ideas even if that forces them to debate and justify their decisions in front of increasingly better-informed consumers.

Future challenges

The ability of any enterprise to add value to its brand and its image in our new digital society depends on how its customers and potential customers perceive its efficiency, customer care, transparency, and authenticity. We have often heard that it can take years to build a brand, and only moments to destroy it. Never has this slogan hit closer to home than in the social media era.

Given that 72 hours of video are uploaded to YouTube every hour of the day[4], not to mention all the other social net activity, the sheer volume of opinion production requires companies to be proactive on social media. To protect their brands, they need to dedicate specialized personnel to searching not only direct customer complaints or praise, but also tangential comments about their organization that might appear anywhere, any time.

Companies are already hiring professional social communicators to embody them on social networks. These social spokespersons have very exacting instructions and style guides, delimiting what they say and do, as they are the front line of communication for the organization. Since people in the job can change, the company might prefer using an avatar, a Mr. or Ms. BrandName, or something similar, to provide long-term continuity.

Mr. or Ms. BrandName will not be "lone tweeters". There is too high a volume of information to process. Clearly, behind every avatar, there will be a small army of analysts. All of them will need to develop a new skill, transliteracy–" The ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks."[5]

These avatar personalities will need to be ahead of the trends, in order to avert a crisis before it happens. They can't wait for contacts to come to them, and keyword searches cannot provide the granularity of information they need. New visual analytic tools are being developed to provide information about where interactions are happening, how they flow, and what types of profiles are likely to be most affected by these interactions.

There is an ethical subtext under all of this. Consumers are demanding more ethical behavior in a cutthroat, globalized, highly competitive economic environment. The derived information gathered to help the avatars stay ahead of the curve might find other uses–some of them unethical. Might we be entering a new era of digital blackmail, pressure, and lobbying?

Private life becomes part of professional life and vice versa

Mario has a roofing business and spends most of his day on the tops of houses. No one is in his office during the day, so when people call his business, the call is forwarded to his mobile and he answers on the roof, or wherever he is at that particular moment. His independent status allows him to adapt his working time to his family life, and mobile devices have contributed a lot to this flexibility.

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[4] YouTube Statistics Page (15 March 2013) [http://www.youtube.com/yt/press/statistics.html Last seen on 15th March 2013]

[5] Thomas, Sue et al. (2007), "Transliteracy: crossing divides," Definition provided by Transliteracy Research Group, Vol. 12, December, 2007 [http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2060/1908Transliteracywasbornfromaproblemhttp://www.youtube.com/watch?v=xFAWR6hzZek&list=PL925763F45FF18201&index=7&feature=plpp_video Last seen on 15th March 2013]

Without global interconnection, there would be no labor market, no politics, no economy as we know them now.

When he goes home in the evening, he answers his professional and personal email and surfs social networks, where he already has his own Facebook and LinkedIn profiles. He also has a Facebook page for his business and uses Twitter to drive traffic to his Facebook presence. Social networking has been a great success for Mario. He learned early that if you want customers to read your business page more than once, you have to give them something more interesting than a simple advertisement for your roofing service. So Mario started researching and publishing little informational tips about roofs, and not very well-known facts about the history of the roofing trade, going all the way back to medieval guilds, famous architects, and classical buildings.

Mario regularly posts these "Did you know?" stories on his business page, and announces them to his media networking contacts. He has a growing list of followers who ask for, and also offer information about roofs and historical buildings around the world. When he has spare time, he even escapes to pay a visit to new places to take a picture for his personal virtual wall, where he has been adding photos. He has recently included images of "Master Works" that he has discovered online. These are small-scale models of intricate frames for roofs of cathedrals, palaces, mansions, and public buildings, that were the "final examination" of journeymen in the roofer's guild, before getting their papers as a "master". Since the journeymen wanted to impress, the models were often very intricate and fanciful, and finished with care and precision.

He began doing this photo sharing simply as a way to attract potential customers to his professional page and generate business. But with time, Mario has come to really love these models, and has even started a small collection of them at home, where he has remodeled part of his garage to create a personal museum. He scours the net for images of new Master Works, he plans his vacations according to where he might find interesting roofs, often in places suggested by his online friends, and he's started to add advice to others' blogs and forums about roof design in historical architecture. He is now dreaming of turning his private little museum into something more open, and to share it with his followers. He is not sure, anymore, where to draw the boundary between his profession, his hobby and his passion…

Future challenges

Work, hobbies or personal passions are woven into today's life by the digital tools that connect people anywhere at any time. The boundaries between personal and private life have not only vanished in our daily schedules, the two areas of life are also intermingled in the shared fields of learning, socializing and interacting with other people. In the digital age, communications have integrated what before were separated activities (working and leisure time) and have given deeper dimensions to other aspects of human interaction. It is no longer possible to maintain family bonds solely with face-to-face relationships. Most networking today would be impossible without distance communication. Without global interconnection, there would be no labor market, no politics, no economy as we know them now.

Our whole perception of community building has changed and is now acquiring deeper dimensions of participation in hyper-connectivity. It is embedded in personal and professional endeavor, family life, and social relationships. Compound, multichannel messages mix and blend in a new informational ecosystem. What is not shared effectively does not exist.

Personality develops in kaleidoscopic fashion, simultaneously building our physical and digital identities. Maintaining our virtual persona is requiring more and more time, and synchronization across different networks and teams is now a general demand. The automatization of this process is limiting the information granularity that we might want to provide to our multiple spaces, but it is convenient and time-saving.

It may be difficult to adjust to this complex reality, but it is defining new profiles that empower us as users and producers at the same time. This is true even in cases where a person's work may not coincide with his or her interests or passions.

Activities that were hobbies in our teens can become job skills in our youth; learning for professional reasons can help us to develop our social graces; gathering in virtual communities for recreation can enlarge our professional spheres and networks; dating, cooking, playing, listening to music, any human activity is now in the digital realm.

The blurring of boundaries offers new possibilities for collaborative innovation.

Teleworking from home, and BYOD[6] (bring your own device) are among the most striking manifestations of this blurred frontier. They certainly represent a way of accepting crowd-sourced participation as part of job productivity, but they also give visibility to a new understanding of personal roles in professional life.

The blurring of boundaries offers new possibilities for collaborative innovation. We might discover, for example, that artists can be a creative source of innovative business proposals. Performances where visitors interact with screen-walls that generate 3D objects by recognizing faces and body movements might be the first manifestation of new interactive supermarket interfaces. They can be used to decide what music or what commercial announcements will be broadcast, what products will be discounted, or which holographic image will be displayed to "personally cheer" the customers at a particular moment. Artists are and always have been the socializers of new technologies–but they may well also be collaborating as socio-technological researchers for society.

These developments might imply that society is moving away from a "job ethic" toward some sort of integrated, organic lifestyle. We will simply have activities. Some are connected to "work"–caring and providing for ourselves and our families. Others are connected to education, relaxing, personal hygiene, etc. There is no a priori differentiation by type, nor division of time into strict categories of activity.

Conclusion

This new communications era is extremely paradigm-breaking. Users become learners in this fluid digital environment where change is accelerating, and roles and relationships such as user-producer, customer-employee, teacher-student, and client-partner are constantly flip-flopping as they share channels and information sources in social businesses, in the educational world, or any professional field. New responsibilities and social contract models are developing in these merging paradigms, more connected and continuous than ever, where both communicating partners (e.g. customer and employee) become human resources, process leaders and results analysts.

Engagement is the keyword for today's content industries, and we don't care if that engagement is at a professional or personal level. This also has implications for our understanding of political participation and future models of social organization.

Content development will need to be more supple, as information, and even "known facts" can change between morning and afternoon. Not only does content need to be addressable, mutable and reusable, but methodologies for rapid, responsive verification, editing, and multi-format, multi-channel delivery need to be developed, with as much of the process automated as possible.

As this fluid, virtualized activity continues to grow, it creates vast new areas for human endeavor. Professionals, learners, and experts can interact in close collaboration. No scientific branch, no artistic production, no business activity, and no cultural manifestation is left behind.

Are we up to the challenge?

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[6] BYOD (Bring Your Own Device) [Also, Wikipedia definition, available at: http://en.wikipedia.org/wiki/Bring_your_own_device Last seen on 15th March 2013].

Author Biographies

Ray Gallon is owner of Culturecom, a consultancy specializing in technical information design, content strategy, and usability. He has over 20 years' experience in the technical content industry, having worked with major companies such as IBM, Alcatel, and General Electric Health Care. Previously, Ray was an award-winning radio producer and journalist, and has worked with with broadcasters such as CBC (Canada), NPR (United States), France Culture, Radio Netherlands International, Deutsche Welle, WDR (Cologne, Germany). In the late 80s, Ray was program manager of WNYC-FM, New York Public Radio.

Ray is a member of the international board of directors of the Society for Technical Communication (STC) and past president of STC France. He is a two-time winner of awards in the trans-European technical communication competition, including Best in Show. He is a frequent speaker on communications topics at conferences and seminars around the world, and has taught communications subjects at New York University, The New School (New York City), Université de Toulouse Le Mirail (France), Université Paul Valéry (Montpellier, France) and Université de Paris Diderot. He is currently a researcher at The Transformation Society.

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