



The Future of Documents in the Social Age: A Xerox Thought Leadership Podcast

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Segment 1: What is a document in the age of social media? Is time it to update your definition?

Lori:

Hello, and welcome to this Xerox Thought Leadership Executive Exchange podcast about the future of documents. My name is Lori Webster and with me today to explore how dynamic documents and new media are transforming the workplace are two thought leaders with unique perspectives on the subject. Francois Ragnet is a managing principal of technology innovation at Xerox and a thought leader on the future of documents. Welcome Francois.

Francois:

Thank you.

Lori:

And joining Francois today is Andrew Nachison, founder of We Media and iFocos, the Institute for the Connected Society. Hello Andrew.

Andrew:

Hi Lori.

Lori:

Francois, you are immersed in the technology and capabilities of documents, but many of our listeners may have their own connotations about what a document is. Can you start us off by giving us your definition of the document?

Francois:

That's a very good question; I'm glad you asked. So what is a document? If you go check on Wikipedia, what it says is a document is a noun from Latin Documentum, is a bounded physical or digital representation of a body of information designed with capacity (and usually intent) to communicate. I find it pretty restrictive. To me, a document is really any way to convey information and touch another human. I usually like to portray the evolution of the document in parallel to the evolution of the Web—you know, Web 1.0, Web 2.0, Web 3.0, etc. So in a document 1.0 world, we were just living with paper printouts or static, you know, electronic documents, Word documents. In a document 2.0 world, which is where we are today, these two are more mixed but still reside local to your organization. Now we're getting into a very exciting era, which is what I call 'Document 3.0', where we've got so many documents like a blog, YouTube video, Flickr image, or you can share your documents online in Microsoft, Zoho Docs, Google Docs—anywhere. Document 3.0 is really social, evergreen and, you know, has input from various sources and now we see also some interesting phenomena that we'll discuss today. What is a Twitter feed? Is this 140 characters really considered a document? It's so ephemeral. I mean, many companies are now using the Twitter feeds not just as casual communication, but also as formal communications. So that's really pushing further the frontier of the document boundary and I'm really excited about this notion of social documents.

Andrew:

Yeah. In some ways, the idea of a document is becoming less precise; it's fading almost, or it's becoming transparent. You know, a document used to be this thing that was physical and fixed in space and time and now it's this real-time social thing that can change continuously, and yet at the same time there still are fixed ideas, fixed content, fixed communication, all of which is remixed, re-aggregated, and increasingly edited and filtered through social systems. I may be touching an aggregation of content that combined has the metaphor of a document.

Francois:

I fully agree with you. I mean, the document is not only that static and self-contained piece of information; it's really that aggregation of content which is distributed across the various social media, social networks, that really make it easy to share information across the globe, within a company, or among friends—and we owe this to the drastic advantage we've had in tools and bandwidth. I remember when I started working at Xerox about 15 years ago; we already had some video conferencing capabilities on the network, but this has advanced so much. At the time, it was very static, not many frames per second, but now you are really immersed in very collaborative experiences—your chat on Facebook, your 3D in Second Life, augmented reality, virtual reality, etc.

I think all of these new technologies, which obviously are supported by much larger bandwidth on the Internet, really push the frontier of the documents. And you know one example I like to use is Google Wave. That is the future of the document because you can really chat in real time what is document that is actually an aggregation of e-mail, threads of RSS feeds; you can see what the other one is typing in real life. So I think that that tool is really one vision of the future of documents. It's too bad that it's actually being discontinued by Google, but I think it's showing the social direction that the document is going.

Andrew:

I would agree with that; I think the confusion that many people had about how to use it also reveals the confusion of the times. Documents which are containers for ideas, communication, and content are in flux; they're variable and there are times when we need specific information organized in a meaningful way, and I think we're struggling now to come to terms with the paradox of abundance—there's too much information and too little time, and documents, or really the metaphor of documents, the experience, whatever form factor it might take, that's the new frontier to help us manage information and ideas in a practice and an efficient way, because there are too many of them.

Francois:

Yeah, exactly. The gist of it is there's all this abundance of information, as you called it, but it is relevant for some of it; it is immediately accessible, but how do we find the right content out of all this? And how do we increase relevance?

Andrew:

Yeah. And at the same time, you know, we're talking at a 30,000-foot level. Every day we deal with things that are really documents. Just yesterday I had a new fiber optic system installed in my house and once the installation was completed, I needed an instruction manual, and the response from the installer was "Well, we don't do instruction manuals anymore. It's all online." And of course, that was difficult to find, and once I did find it, it would've been wonderful if it was a social, customized, real-time document that spoke specifically to me and the installation that just occurred in my house, but of course it didn't—it was a generic, fixed document that just happened to be online instead of on paper.

Segment 2: How will "social documents" impact organizations and knowledge workers?

Lori:

So what will this increased relevance and immediate access mean for organizations out there?

Francois:

Well, our organizations are constantly pressed with requirements for faster learning, faster decision-making, more reactivity, being global, problem-solving, etc. So our businesses, just like us individuals, need to be faster in the way we react, and really this is often, if not always, driven by documents. But now companies are also investing in social channels and mobile technologies to do that. So it's really changing the very nature of work—where, when, how you do work, you do anytime, anyplace. It started a while back, you know, with remote login, etc., but—the BlackBerry's—but then it became really very broadly accessible as with the iPad and the iPhone where it really became a convenience which first was rejected by the business world but then had to be made part of the business world. Organizations have to be prepared for the new trends.

Andrew:

I'll get back to organizations in a moment, but it's also a very personal conversation—you know, the nature of work for us as individuals is changing and organizations are struggling with that as well. Work is now not necessarily a job in an office for a company; more and more people do work on their own as independent contractors; they may work at home, they may work in coffee shops. We see the rise of co-working spaces—places where independent workers come together periodically or regularly to have a collaborative, shared creative experience with people who aren't part of the same company but who have ideas and talents that they want to mix with. For organizations, you see this reflected in teleworking, in reduced dependence on central offices, but also there's a competitive pressure—small, lean, low overhead, independent companies are a new creative force in the workplace and in the business environment for big institutions that have big overhead, big offices, and workflows and systems built for a different kind of scale.

Lori:

Do you see this as the end of cubicles as we know it? Or do we have a distance to go before we can truly break down the notions of the traditional workspace?

Andrew:

I would say yes, cubicles are a thing of the past; they're not disappearing completely—that's like the old question about, you know, are we seeing the end of paper? Although communication is increasingly digital, paper hasn't vanished from the human experience. Offices, face-to-face interactions, the necessity for some people to be together, that's going to continue, but I do think we're going to see more and more workflows and work systems built around dispersed, distributed workforces.

Francois:

Yes, I agree with that. Andrew and I met at the We Media Conference in Miami earlier this year. One of the topics was the office of the future, and the question was 'Is the cubicle, the office as we know it, going to die?' And I have to admit the answer was probably more in between, right? We need flexibility, adaptability, and timeliness, so it's often convenient to work as a consultant, etc., and work virtually, but still there is a need, for some work being done face to face with other individuals, and it doesn't have to be full time; it can be just one day a week. But I think to really get things done, it's very important to have this notion of a corporation and this contact with others.

The other thing that I think is interesting and relevant to the topic is as an individual, it's very easy to adapt to more work, to get more horsepower if you get more contracts at a time or more work to do, but as an organization it's not quite as easy. As an individual, I can always stay late and work after hours and I know I'll be able to deliver that work. As a company, it's not very easy to find a hundred additional people that will do the work for me the next business day. So I think the future of work is also, the enterprise level going towards business process outsourcing, because companies like Xerox which do business process outsourcing can bring you the quality and the adaptability and the flexibility that you need. With some people that work from home, you have the trusted quality that you want and the timeliness that you want. It's scaling up what you do at an individual level.

Andrew:

I look at it as more of a creative challenge and an innovation challenge than as an efficiency challenge. I think the traditional pull toward fixed offices was, A, driven by technology—offices were where the technology was for the work that needed to be done; B, they were a management tactic to monitor and know that your investment in people was paying off; but C, there's a creativity factor and an innovation bonus from having people together, and that's often an intangible value of face-to-face work which is not measured in terms of efficiency or deliverables but in terms of the creativity of the ideas that flow out from those people. I look at that higher value largely as a creative bonus, as a creative output which I think companies of all sizes are going to need to focus on in the next decade.

Segment 3: What are the social implications of virtual work? Is there a clear vision for a cloud-based, app-driven workplace?

Lori:

That's interesting. Andrew, let's talk about some of the social aspects of virtual work. What's life going to be like with social documents in a cloud environment?

Andrew:

You know, I think it's going to be a more self-directed, self-determined work experience whether we're talking about the management perspective of a company or the entrepreneurial experience of an individual who's running their own work experience, whether they're an employee, self-employed. I think there's an expanding level of freedom in work, and with that the burden of freedom which is determining, you know, when and where you do work and getting things done however you need to get them done, whether that's working at home in an office, working in an airport, working at a client site, working in a coffee shop, working in a co-working space that you rent one day a week, or all of the above. Certainly, mobile communication is becoming a central mechanism for all this to happen and I think the rise of technology enabling work anywhere will be paralleled by shifts in work/life balance issues and that's going to be both a benefit for lots of self-driven workers, but also a new challenge to figure out how life and work fit together.

Francois:

Yeah Technology will have a key role to play here because, getting back to the larger definition of documents which we discussed earlier, being the essence of work in that social distributed world and that overabundance really of content that needs to be handled, I think it's important to have technology that allows you to filter and to support your work without being drowned in that information overload.

So I have a few examples, you know, from the Xerox Innovation Group, that really, will be instrumental in getting us there. One of them is what we call Factspotter and it's really a technology for analyzing documents and understanding their contents from a semantic perspective, and that really is key in helping you sort of pre-filter the information that you receive from the outside and judge its relevance before it actually even gets to you. Another one is categorization, which basically judges the type of a document when you receive it and it can be based on text, on image, on many different features, or it can even, in some cases, judge whether that document is relevant for you or not. So we've played with use of technology, for example, in litigation cases to figure out whether a document was responsive or not, meaning that it had something to do with that case or not. So if you extend this to that abundance that could be a great filter for only receiving the information which should be relevant. All these business processes and workflows can be run on the cloud from multifunction devices, from PCs, from everything. You can do printing and scanning because you still do need a bit of paper in your daily work, although it goes down and that's a good thing. So I technology, as you've rightly pointed out, is really key in that new world of social documents in a cloud environment.

Andrew:

Yeah. In some ways, you also just described one of the advantages that large organizations can provide to their workforces, which is not simply creating technology, which happens to be what you're doing, but also providing and provisioning and standardizing it for workforces because the other challenge that increasing numbers of digital workers and digital creative's have is a different kind of abundance, and that's an abundance of technology. As wonderful as technology is, or as we hope it will be, keeping up with technology is now a challenge in its own right. A good example of this for me is Twitter and what happened with the explosion of Twitter clients and Twitter applications and Twitter services. Twitter itself is an incredibly simple system and yet from it, there are now thousands of applications, some of them geared toward consumers, some of them geared toward enterprises, some of them geared toward marketers and measurement. It's a dizzying array of applications—really too much for anybody to keep up with if they actually have to get things done. Another way of illustrating that, again thinking about social media, is the marketing challenge. You know, a few years ago search and search engines were thought to be the dominant means of marketing in the digital culture and now we see search engine optimization being challenged by new marketing schemes built around social connections and social marketing and social marketing optimization. So suddenly these wonderful, simple tools like Twitter and Facebook are being engineered to be complex systems that require specialist techniques and specialist analytical skills, once again eclipsing both the needs and the capabilities of ordinary users. It's a curious situation.

Lori:

And it's fast-moving, too. You know, with all the automation of information processing and knowledge extraction, what's going to become of the knowledge worker as we move forward?

Andrew:

Well, I think it's a hyper-competitive market of perpetual change. The knowledge worker is somebody who is in a continuous state of learning, which is both a frustration but simply the nature of business now. There's no such thing as a technology that you can learn once and forget about. You know, even think about the last 10 or 15 or 20 years and the way everybody learned Microsoft Word; I mean, most people learned Excel, and these were just the tools of the trade. They were shared; practically everybody in business knew how to use them and use them to exchange ideas and documents, and now suddenly we're living in a world where there are thousands upon thousands of apps and services that we need to choose from, whether it's the Twitter client we use or the apps that we put on our iPad or on our BlackBerry or on our iPhone, everything is personalized and the efficiency comes through personal perseverance and learning.

Segment 4: What will become of security and privacy in an information overloaded world?

Francois:

One thing that is probably very relevant, you know, in all those Facebook and Twitter discussions these days, but probably even more so to organizations, is security/privacy of their information, their content, their documents. And although as much as I'd like, the end

of privacy and, you know, that transparency imperative that we all wish to pursue and see happening—things like Wiki Leaks—war documents going out and things like that—I think are some of the risks that corporations and large organizations, at least, but also individuals to some extent, should be aware of. The cloud, in particular, is very—is a great tool for storing all that information, for aggregating it, for getting information here and there, but can you really trust the cloud? I mean, the answer is really ‘yes’, but at least from an organizational standpoint, I think you need to do it in a controlled way and I recently wrote a whitepaper on that topic called “Can You Trust the Cloud? A Practice Guide to the Opportunities and Challenges Involving Cloud Computing”. So there are the plusses and the minuses there, but I think privacy, security, and also long-term preservation—you know, what’s going to happen with whatever I send out today? Can I still have it 20 years from now? These are some of the constraints that an organization should take into account before diving into the social media and the cloud computing world fully.

Andrew:

Yeah, I think privacy is probably the great challenge of the next 10 years. There’s a palpable tension now between people who crave more privacy and people who want to be able to not only trust information but maintain its security and the social shift toward less privacy, toward more open communication, and simply decline of the expectation that there even is such a thing as privacy. And we see generational differences in approaches to this, but 10 or 20 years from now, we don’t really know. Today’s young people who are comfortable with more information being public, 20 years from now we don’t really know how they’re going to look at the world and what they’re going to think about their own experiences. So institutions, of course, think about this in terms of corporate integrity and security, but don’t forget that all institutions are made up of individuals and all the individuals working for institutions are struggling with this personally themselves, so we see private e-mails that were thought to be private, of course, trickle into the public; we see Wiki Leaks—private government data—that trickles into the public. For years, privacy experts have been advising pretty simply “If you’re leaving a digital trail, you should have a limited expectation of any privacy because anything that’s digital and traceable can be revealed in public.”

Francois:

To some extent, this lack of privacy also serves purposes and is very beneficial from an organization’s standpoint: Can knowing more about the person allow the organization to have targeted marketing messages? What we call ‘transpromo documents’, which are a combination targeted advertising and things like that? So it’s really a different shade of gray and you really need to know where you want to be on that scale.

Andrew:

Yeah, absolutely. And of course, systems of crowd sourcing and crowd-powered creativity and crowd intelligence really depend on sharing, and we see companies and organizations that take a very aggressive approach to tapping the intelligence of many people, widely distributed, who are willing not only to share information that previously might have been thought of as private or secret, but to be creative in a more public way, and this could create not only business innovation and creativity, but all sorts of social innovation and social creativity. So there again is a tension between instincts to withhold information and what you might call a ‘social hunger’ to share, improve, and enlighten each other.

Lori:

So when I give my permission, my content knows where to find me, knows what I’m interested in, and gives me only the relevant material that I need—that sounds like a world I’d like to see. So where’s it going next?

Andrew:

I’ll answer first and Francois, you can close it out. Yeah, of course—you just described a best-case scenario with some assumptions that the information finding you is the best and most relevant information, and I guess the assumption is your social networks are smart enough and reflect your interests well enough to do that filtering efficiently. I think this is certainly where we’re going, but I don’t know that we’re there yet and of course that leaves out what you might be missing—what might be more relevant, more informative, more enlightening or pattern-changing that your friends and network are missing or not sharing with you because of the self-selecting nature of social networks. So where we’re going is undoubtedly a world of network-driven intelligence; we may also be going toward a world of more self-selected understanding; we may be going toward a world of both an abundance of information and a lack of new information, which is part of the paradox. As we swim in a world of information that meets our world views, there’s a challenge to identify information that challenges us and that pushes us and that doesn’t fit our patterns. So a continuing world of uncertainty is really where we’re going—disruption for institutions that have been built on institutional control; opportunity for new organizations that create socially driven information networks and services; undoubtedly opportunities for entrepreneurs and organizations that can innovate on technology and on communication; and probably some big gaps that

entrepreneurs or institutions will need to struggle with—gaps in how we know what we know, from whom we know it, and how well we're able to manage and act on information that we should know.

Francois:

Yeah, that's a very good answer to where it's going. To me, the information that what you're interested in gives you only the relevant material you need; also it will be able to tell you, based on those social patterns that you can analyze, the social document will not only tell you what material you need, but also what other material should be interesting to you, and that will be delivered to you anywhere, in any shape or form which is most suitable at that very point in time. So I think it's a brave new world with lots of questions with respect to privacy and security, but I think it's one that companies should definitely be looking for, although probably being a bit cautious about engaging it, but not being late to the game, either.

Lori:

Interesting topic and conversation, and it sounds like we're entering an era of boundless opportunities to transform the way we work with information. I see documents and social media breaking down barriers and giving knowledge workers powerful new tools and I can't wait to see what's next on the new frontier.

I want to thank my guests today, Andrew Nachison from We Media and the Institute for the Connected Society, and Francois Ragnet, our Xerox Future of Documents thought leader. Thank you gentlemen.

Andrew: Thank you.

Francois: Thank you.

If you want to learn more about this topic, the Future of Documents, visit www.xerox.com/thoughtleadership. I'm Lori Webster, on behalf of all of us, thanks for listening.

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