PART

1

Foundations

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From Multichannel to Cross-channel

FIGURE 1.1
Santa Maria Novella, Florence.

We are living in an age when changes in communications, storytelling, and information technologies are reshaping almost every aspect of contemporary life—including how we create, consume, learn, and interact with each other. A whole range of new technologies enable consumers to archive, annotate, appropriate, and recirculate media content, and in the process, these technologies have altered the ways that consumers interact with core institutions of government, education, and commerce.

(Jenkins 2005).

SHORT STORY #1: IN 1999

Saturday

It's 1999. Mr. Jones is reading the day's newspaper in the quiet of his apartment in Bridgewater, Somerset, after a light supper. It's an early summer late afternoon on a Saturday, and his wife is in the garden. He is idly browsing the entertainment pages, undecided whether he wants to do some crosswords or not. Something catches his eye: an ad announcing that a documentary about Florence is about to begin in about half an hour on one of the cable channels.

Something on Italy in the Renaissance, by the looks of it, but he and Mrs. Jones have been thinking of taking a week off in Italy for quite some time now. Mr. Jones checks the clock on the wall. Yes, it's 7:18 pm. That's more like 40 minutes then. He passes the news to his wife, reads a little more local news, and when it's just about time he goes to the kitchen to brew some coffee. He carefully measures the coffee. Mr. Jones is 72 and his wife is 69, and they both need to keep it under control when it comes to caffeine in the evening. He sits at the table and waits for the coffee to brew. When it's ready, he pours two cups, puts them on a tray, and brings them to the sitting room. He sits down in his armchair, switches to the right channel, and calls his wife.

The documentary is much better than Mr. Jones thought. Even the coffee is better than he thought. His wife was positively impressed with what they saw and really liked the idea of taking their week off in Florence when he suggested it. A beautiful city, good food, and maybe some tours in the countryside to the gorgeous medieval towns that lie on the hills all around. It's a go, but it's now 9 pm, and Sunday is coming. Mr. Jones will have to go to the travel agency to arrange things on Monday morning, while his wife is at the library where she works as a volunteer since she retired from teaching.

Monday

It's 7:30 am on a sunny and warm Monday morning. Mr. Jones calls the travel agency, but he gets an answering machine that does not tell him what time the agency opens. This is annoying. His wife has already left for the library so he kills some time reading, then he's off. It's a couple of kilometers to the center and to the travel agency, and Mr. Jones is a steady but slow walker. It takes some time, but when he gets there he finds out he still has to wait a little. On Mondays they open late, it seems. Luckily, it's not December. He goes to a café on the other side of the street and gets himself a tea. In some 20 minutes, the agency finally opens.

When he finally sits down in front of the middle-aged woman who runs the place, he finds out things can get a little more complicated than expected. The flight is not a problem, but they will land in Pisa, some 80 kilometers from Florence. That means a local train there, and for some reason, it does not seem possible to buy tickets from England today. The lady reassures him that he will have plenty of time to buy the tickets and that trains run on the hour so that shouldn't be an issue. She also suggests some rather expensive hotel close to the center and the railway station, buffet breakfast included, so they will have everything at hand and staff that can speak English.

Mr. Jones settles for that. After all it's been a while since that trip to Spain in 1995 and the money is not so much an issue, but he asks for a little help in organizing one day out of the city. They check a number of catalogs, but the only package the travel agency can sell him is a complete bus tour of the major medieval cities around Florence that takes 4 days. This is too much for them, as they only have a week and that includes Florence itself. They make a couple of phone calls, but nothing useful comes up. Mr. Jones resolves to look for that once they are in Florence. The agency confirms the tickets and their hotel on Wednesday. Mr. Jones walks back there Friday, pays, and brings all the paperwork home.

Sunday

Their flight lands in Pisa 3 weeks later. It's hot, and they need to find a cab to get to the station to catch the train that will take them to Florence and the hotel. They had started out early to be in London in time for the plane, and they are tired. It's Sunday, and Pisa seems to be rather sleepy. They have the documents and vouchers the agency gave them along with a tiny map of the center of Florence that's not really useful in Pisa. They enter their room almost 4 hours after touching Italian soil, exhausted.

Monday

On their second day, they decide to go to the Uffizi, so just after breakfast they ask the hotel staff for directions. It is pretty close, but they get a little lost in one of the narrower medieval streets; they are not that good with maps. They get there, buy their tickets, queue for an hour, and see their Michelangelo. They dine out. They take pictures at Ponte Vecchio. They buy souvenirs. On their fourth day they even manage to find some sort of shady but actually very nice van tour that takes them to San Gimignano and back. When their week is over and they get home, they have a bag full of tickets, maps, brochures, flyers, and whatnot. They also have five full films to be developed—memories to sort out and share with the Cullings next door. That's what they will do for a few evenings.

SHORT STORY #2: IN 2011

Thursday

It's 2011. It's a late September Thursday afternoon in Trenton, New Jersey, and Mrs. Hutchinson is checking her e-mail. She's in her office and just about ready to leave. She's deleting the usual amount of semispam she receives when she reads one "Check our prices for Florence!" message from a travel Web site she uses for some of her bookings. She and her old high school friend Julie have been talking about Tuscany for a while now, so she checks that out. She finds out there seem to be some good last-minute opportunities for flying to Italy on the weekend. Nothing to blow your mind but enough to make the trip a possibility. She carefully checks the offer and sees that it's either that Friday or never again. She calls Julie on her mobile.

They quickly agree that it can be done if they can find some good central hotel to go with it and if the families can manage an extended weekend without them on such short notice. Mrs. Hutchinson has no children, but Julie has a couple of teenagers in the house and her husband has to agree that he can survive a full 5 days alone with them. They get a green light, and in 20 minutes, after a thorough search through hotel reviews, which gets them a five-star close to the Duomo, which seems good and has a discount rate formula for the weekend, Mrs. Hutchinson is booking the flight and hotel on the travel Web site.

They are landing in Pisa, coming from Munich, Germany, around noon. She checks the location with Google Maps. It's a good 50 miles from Florence. And it's where the Leaning Tower is. It might be worth a stop, if only they had the time. She looks for ways to get to Florence, gets a good deal on a rental car, but does not feel too confident she can drive in the crazy Italian traffic so she leaves that and settles for the train. She buys tickets on the Italian Railways Web site and prints them out carefully. She also prints the timetables. She goes back to Google Maps, sets up a couple of panoramic strolls through the city, and prints these as well. She packs them together with custom maps of all the major places they want to visit, including a couple of restaurants and the Gardens of Boboli and instructions on how to reach them. She then buys tickets for the Uffizi online and calls it a day. Home to prepare her bags.

Saturday

They land in Pisa and arrive in Florence in a couple of hours. They walk to the hotel. They are tired and jet-lagged, but after a couple of hours of sleep and a long shower, they are off for some shopping.

Julie has brought along her digital camera—nothing incredibly professional but enough for them to have a couple thousand pictures from their four days in Tuscany. They will print some and quickly forget about the others. They have a good time.

THE GAME OF THE GOOSE

Roughly 10 years separate Mr. and Mrs. Jones's trip to Florence from Mrs. Hutchinson's. Many things have changed in between, even though they all traveled from abroad, visited the city, had a nice afternoon at the Gardens of Boboli, saw Michelangelo's paintings at the Uffizi, and enjoyed some of the countryside.

Mr. Jones had to walk to a travel agency on a working day during its open hours; Mrs. Hutchinson did all her booking on an online travel agency open 24/7.

Mr. Jones had no idea of how to move around or where their hotel was and had to spend some time at the airport looking for a city map and guide in English. Mrs. Hutchinson had printouts of all their movements around the city, and she and her friend Julie spent a couple of hours on the plane to develop some strategies to maximize fun and sightseeing and reduce any unnecessary mileage to a minimum.

Mr. Jones had no control at all over which hotel to choose. He did not have any friendly recommendations and no way to verify what he was offered other than the brochures he was given. Mrs. Hutchinson compared a number of hotels, based on their price, distance, and category. She took a good look at pictures of the hotels, their positions, and their rooms. Some of the pictures were posted by people who spent some nights there. She also received plenty of advice on possible problems (such as asking for proper pillows or more towels) and on tried-and-tested solutions (such as do not go to the desk but rather talk to the maid in charge of the floor).

Mr. Jones brought a few pounds of paper back home, a couple of tourist books, and a hundred pictures. Mrs. Hutchinson brought paper to Florence, used it there, kept a few tickets as souvenirs, bought a couple of ugly miniature replicas of the Palazzo Vecchio, and generally relied on the thousands of pictures that Julie snapped with relentless dedication. They brought home a handful of memory cards.

The 11 years in between the two trips have surely brought an incredible degree of personal control over the details of the journey. If we were to travel to Florence or any other place in the world, we know we could easily compare prices by means of sites such as kayak.com and choose our seats on any plane knowing exactly what the pros and cons are thanks to sites such as seatguru.com. We could see the surroundings of the hotel before booking and read reviews, comments, and tips. We could check for less expensive or more luxurious alternatives without even leaving our chair.

In all, the Internet and the Web have certainly made many activities easier, and this is not limited to traveling, of course: we can shop, make appointments with our doctor, pay our taxes, enroll in higher education courses, and organize events.

But have they managed to make all of these experiences more memorable and meaningful or are they still a simple collection of differently shaped building blocks that we can use in a sequence of our own, adjusting our strategies as we go along? We believe the latter is true. Check out the following two sketches (Figure 1.3): they might not be of the highest scientific standard, but they are accurate renditions of Mr. Jones's and Mrs. Hutchinson's respective user journeys.

FIGURE 1.3

A totally scientific account of Mr. and Mrs. Jones's (top) and Mrs. Hutchinson's (bottom) user experiences in 1999 and 2011.
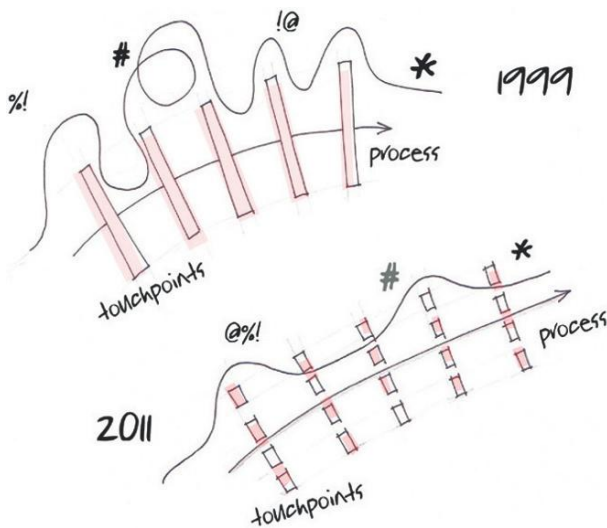
The various touch points, or interactions with people, objects, or services across the different channels, actually managed to mostly hinder their user experience. For Mr. and Mrs. Jones, at times it felt like they were bouncing off solid walls that had to be climbed. Granted, there is a good deal of difference between the hoops and the loops they had to suffer through and the smoother journey Mrs. Hutchinson and her friend Julie had. The years in between have carved some holes in the walls and have lowered the obstacles. But still, it's a quantitative difference, not really a qualitative difference.

In the face of the technological changes and the incredible increase in available information, arranging a trip like that still feels like we are playing a game of the goose: race from the start to the end and avoid being sent back or missing a turn. It's just that the board is not really a board, but it's channels, media, environments, and experiences and they all have to be played differently. We have to learn a thousand different ways to do the same stuff over and over again, and we cannot play on one single board with one single set of rules. It shouldn't be like this now. Will it be like this in 10 years?

CHALLENGING COMPLEXITY

The unit of analysis for us isn't the building, it's the use of the building through time.

(F. Duffy 1990)

In 2009, MIT researcher Pranav Mistry surprised everyone with the SixthSense wearable interface (Figure 1.4). Composed of a camera, a projector, and a mirror combined into a portable gadget and connected to a mobile computing device that can be pocketed, the open-sourced SixthSense is a veritable piece of design linking digital devices and information with the physical world and making, in turn, as Pranav Mistry puts it, "the entire world your computer."

Although the miniaturization of computing devices allows us to carry computers in our pockets, keeping us continually connected to the digital world, there is no link between our digital devices and our interactions with the physical world. Information is confined traditionally on paper or digitally on a screen. SixthSense bridges this gap, bringing intangible, digital information out into the tangible world, and allowing us to interact with this information via natural hand gestures.
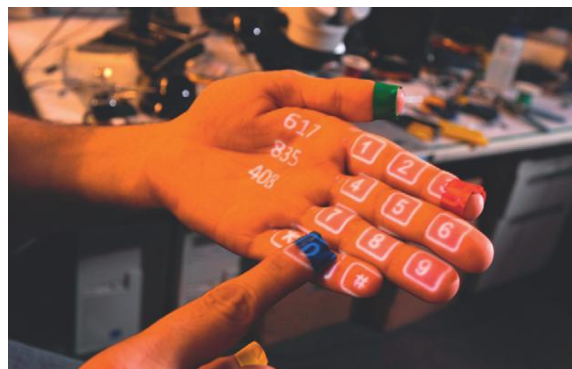
(Mistry 2009a).

FIGURE 1.4

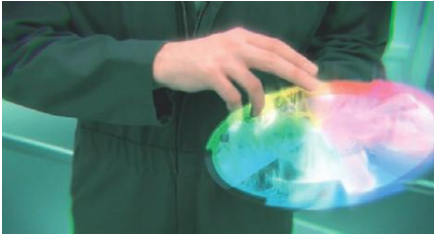The SixthSense wearable interface demonstrating augmented reality phone calls. *Source: Pranav Mistry.*

FIGURE 1.5
A paint interface for augmented reality in Bruce Branit's World Builder video. *Source: YouTube.*

It's an amazing appliance, a brilliant glimpse of what we can expect when we start mixing the physical and the digital. We are not that far away from the kind of remediation of reality that Bruce Branit imagined in his World Builder video (Figure 1.5).

Nonetheless, for all its incredible ingenuity, we still believe that there is one larger problem looming behind, one that the SixthSense does not address directly and that deserves our attention first: that of enabling seamless pleasurable, recognizable, and simpler user experiences across channels. The SixthSense brings information into the real world, but it does not address the problem of how that information is designed in the first place. This is a different challenge, one that requires paying attention to a whole different set of design problems.

ACROSS CHANNELS

We have been mentioning the fact that some of Mrs. Hutchinson's experience in Short Story #2 prefigures a cross-channel architecture. What does this mean? In what respect is it different from a traditional multichannel architecture? Well, it is a small but crucial difference.

In traditional multichannel strategies, more than one channel is used simultaneously and alternatively: it's like our friend Mr. Jones being told he could have just phoned the agency and bought a travel package to Florence. The office and phone support are two different alternative channels that can be used in place of each other, at least for certain services. Think of dealing with your bank; you might be able to pay an invoice or file a form by means of several different start-to-end procedures, usually residing in different domains, for example, by calling a phone help service, going to the closest bank branch, or visiting the bank's Web site.

Cross-channel - *Cross-media*, or transmedia, is a term that owes a great deal to the pioneering work on convergence of Henry Jenkins at MIT. It generally refers to linking across different media of branded entertainment and content, such as movies, TV shows, advertising, and games. Cross-media content is distributed and broadcast in such a way that any one single medium offers only fragments of the global experience and actively depends on the others for advancing the narrative. However, the term *cross-channel* has been more widely adopted by the marketing and service design communities for those experiences that span media and environments but are not necessarily connected or limited to the content offered by the entertainment industry.
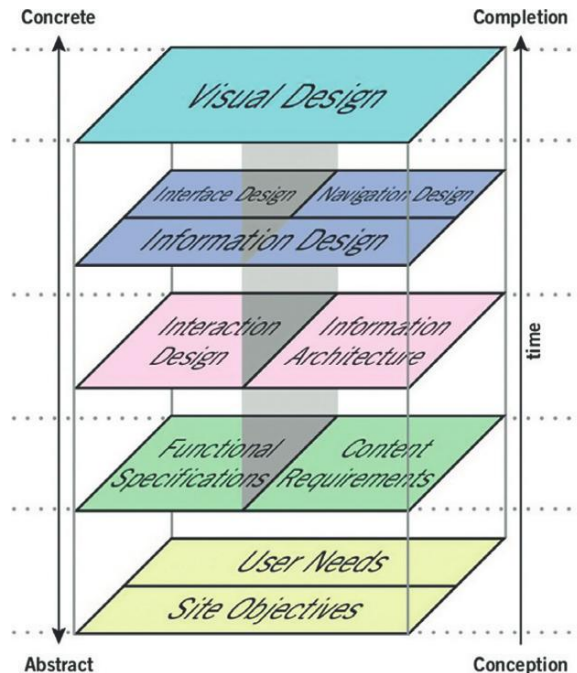
In **cross-channel,** a single service is spread across multiple channels in such a way that it can be experienced as a whole (if ever) only by polling a number of different environments and media. To keep up with our banking example just given, it's like receiving a text message on your phone giving you the details of some account operation you have performed online and that you need to complete at your bank branch. If one of the pieces is missing, you might miss some of the information being transmitted along the process and that may or may not be available through other channels.

This is where we are moving to. More and more information is reverberated through different channels

FIGURE 1.6
Jesse James Garrett's original diagram documenting how the Web as a software interface and the Web as hypertext are joined together in a single workflow in user experience. *Source: J. J. Garrett*, The Elements of User Experience, *New Riders Publishing 2002.*

and media: our perception of the process and our expectations of its outcome are changing. We are becoming more aware of its cross-contextuality. In 2002, Jesse James Garrett, a user experience designer and the man who coined the term *AJAX*, wrote a pivotal book called *The Elements of User Experience*. In its pages Jesse explained in detail his model of user-centered design, the one you can see in Figure 1.6.

Jesse identified two parallel forces or areas in the design of user experience that he called *Web as software* and *Web as hyperlink*.[1] These roughly coincide on the one hand with the technological issues, steps, and expertise and with the content-related parts on the other, respectively. Every project moves from conception to completion, developing through time and a series of planes, or activities, that become increasingly more concrete and less abstract as you move toward the final product. Close to the bottom you can find, for example, functional specifications (Web as software) and content requirements (Web as hyperlink). A couple of steps up you find interaction design (Web as software) and information architecture (Web as hyperlink). At the top, visual design completes the picture.

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[1] While originally aimed at Web sites, this model has been largely applied to user experience in different domains.
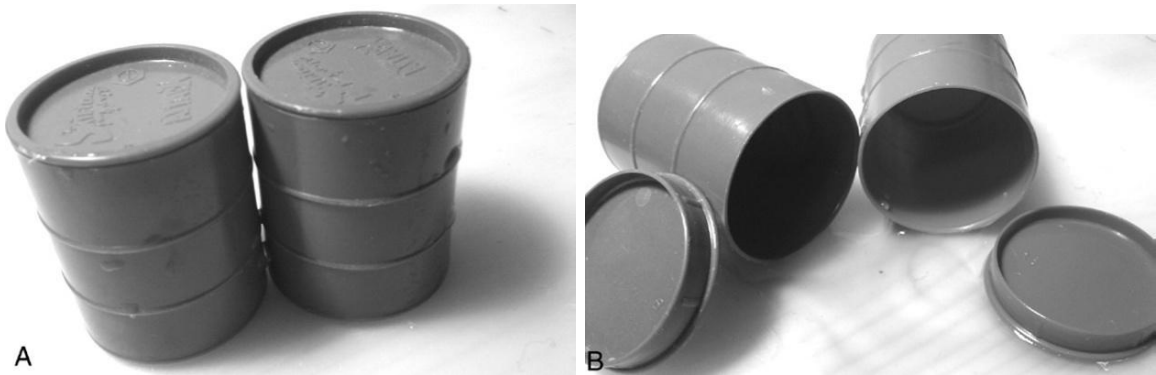
FIGURE 1.7
From single silos to designing across channels.

These are the blueprint for building a silo, and it's ok if you are developing one single artifact. It still works like a charm. But what happens if you have more than one? What happens if your design has to consider more than one media or platform? What happens when your design is cross-channel (Figure 1.7)? Let's go see.

RESOURCES

Articles

Jenkins, H. (2005). Media Convergence. http://web.mit.edu/cms/People/henry3/converge.html.

Mistry, P. (2009a). SixthSense: Integrating information with the real world. http://www.pranavmistry.com/projects/sixthsense/.

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Branit, B. (2009). *World Builder*. http://www.youtube.com/watch?v=VzFpg271sm8.

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