



**ISCTE**

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*ISDOC'2014*

*Information Systems and Design of Communication  
International conference, promoted by EuroSIGDOC*



*The 3rd Report*

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# *Practitioners and academia at ISDOC'2014*

Carlos J. Costa, Arsitides Protopsaltis and Manuela Aparício formed the EuroSIGDOC Chapter in 2010. Since the beginning, EuroSIGDOC received total support from the SIGDOC Chairs , Brad Mehlenbacher and Rob Pierce. The chapter has organized workshops since 2010 and conferences since 2012. All these events took place in [Lisbon](#), with the resulting proceedings indexed in the [ACM Digital Library](#).

After presenting parts of his work at EuroSIGDOC events as a technical writer practitioner, Joaquim Baptista started 2013 an informal group of “Technical Writers @ Lisbon”. The only requirement for membership is to be willing to share. Members quickly established a tradition of openly sharing their experience through slide presentations, complemented with extensive questions from the other members. Follow-up reports further disseminate the knowledge, including public notes that capture the feedback of all attendees.

ISDOC'2014 (the international conference on design of communication promoted by EuroSIGDOC) provided a opportunity to weave a fruitful conversation between academics and practitioners. ISDOC'2014 would also be a good venue to improve the embryonic training in design of communication in Portuguese Universities. However, the board would have to design a conference that would cater for the needs of both worlds.

## *Workshop with posters*

A workshop provides a good umbrella for a meeting of practitioners within an academic conference, because workshops can create their own rules for participation. However, workshops often leave little trace of their activities in the conference proceedings. So, the board decided to ask for posters, which would be published as two pages in the conference proceedings and discussed in the workshop.

However, issuing a call for posters is not enough to guarantee a good workshop. To increase the odds of a good interaction, the plan was to test the whole idea beforehand in an informal meeting. Logistical challenges prevented the informal meeting from taking place, so the whole workshop idea was ultimately abandoned for ISDOC'2014.

The board still believes that a workshop that fosters meaningful interaction between practitioners and academia would be a welcome addition of the conference.

## *Keynote address*

ISDOC'2014 was lucky that Rosário Durão accepted the invitation to be the keynote speaker. Rosário was instrumental in starting the informal group, contributing with inspiring conversations and with the branding of the group.

Before moving to New Mexico in 2012, Rosário unsuccessfully proposed an undergraduate course in design of communication to the University of Lisbon (FL-UL). She now teaches 11 different courses related to design of communication in New Mexico.

## *Panel*

Having Rosário in Lisbon created an excellent opportunity to discuss teaching and research in the general area of design of communication.

A panel seemed the right format to have a public conversation within the conference. Carlos Costa agreed to moderate the panel. Besides Rosário, the conference chairs invited Joaquim Baptista and Daniel Bofill, based on their presentations to the informal Lisbon group in 2013. The panel was completed with Marco Neves, for teaching a very successful course on infographics aimed at PhD candidates.

A few academics rejected the invitation and excluded themselves from the panel. Their participation would have added meaningful experiences and insights.

The panel succeeded in generating contrasting points of view, and the enthusiastic participation of the audience provided further diversity. In hindsight, the same kind of public notes used in the informal Lisbon meetings would have captured the feedback of the audience, and further enrich the conversation.

## *Experience reports*

The conference chairs invited Joaquim Baptista and Daniel Bofill to share their experience in the conference, and to publish experience reports in the conference proceedings.

Joaquim managed to clarify and write down the ideas presented within the informal Lisbon group into an experience report that was submitted and reviewed.

Daniel accepted the invitation to present, but SISCOG was cautious and decided not to publish an experience report in ISDOC'2014. The decision may change in the future.

## *Schedule*

The initial idea was to have Friday as the mostly academic day, and Saturday morning as the practitioner day, with arrangements to allow participants to attend both days. Following a well established tradition, the keynote address was scheduled for late Friday afternoon, enabling practitioners to attend the keynote without missing work.

However, since some academic researchers were only available to speak on Saturday, the morning risked overflowing into the afternoon.

The conference chairs ultimately settled for having the panel Saturday before the coffee break, which served as a natural shield to overflow the expected conversation. The experience reports were presented Saturday after the break. The poster session was crammed in into the coffee break itself.

Daniel presented his experience as a closing talk, therefore sidestepping the expectation to publish. The very practical difficulties facing Daniel at SISCOG (the “beast”, as he put it) contrasted vividly with the open academic research presented by Rosário Durão during her keynote address.

## *Attendees*

The conference had 72 attendees. Part of these attendees were authors who presented their papers and others were participants who were interested in the thematic of the sessions. Based on the registrations at the door, the conference had 27 MSc students, 18 researchers (including some PhD students), 16 practitioners, and 11 academics. More people attended the Keynote address by Rosário Durão, since it was an open session.

## *Continuing the conversation*

ISDOC'2014 benefited from crossing the growing traditions of EuroSIGDOC conferences in Lisbon and informal practitioner meetings in Lisbon. Everyone involved was important.

There was a warm atmosphere at the conference this year that contrasted with the contemplative mood typical in previous years. This warmer mood was manifest in the lively coffee breaks, the questions after each presentation, and the audience participation in the panel. For some participants, the relaxed late dinners and the late lunch on Saturday rounded up the experience.

This report aims to continue the conversation by making available in a more permanent the conversation in the panel and the experience reports.

You are welcome to join the activities of EuroSIGDOC and the informal group of “Technical Writers @ Lisbon”, and to suggest future activities.

EuroSIGDOC board:

- Carlos J. Costa, Chair, ISDOC'2014 conference chair and program chair.
- Manuela Aparício, Treasurer, ISDOC'2014 conference chair.
- Joaquim Baptista, Vice-Chair, ISDOC'2014 organizing committee.

# *What happened?*

On Friday 16th of May late afternoon, the large audience for ISDOC conference in ISCTE in Lisbon had in particular several students from ISCTE interested in the subjects of the conference and also students of Professor Carlos Costa who was part of the event organization.

The conference had a wide diversity of nationalities among the participants, which brought diverse perspectives and points of view and stimulated interesting international interactions.

Rosário Durão from New Mexico, presented “Communication science and technology visually” from 18h30 to 19h45. She exposed in a motivated way, the subjects on which she developed research and that she widely illustrated and exemplified. In particular, Rosário created an improvised workshop for which discussion groups formed spontaneously among the audience to find innovator ideas for ways of replacing all the physical cards we carry every day in our bags. She underlined the growing importance of the visual information for knowledge teaching and transfer.

The interventions of the audience showed the interest from the different kinds of participants (researchers, students and also participants not registered for the conference).

On Saturday 17th of May, Joaquim Baptista from the firm Altitude Software made a presentation about “Technical writing in Portugal” from 11h30 to 12h30 to a less numerous audience than Friday with less students but with a stronger international participation.

The presentation had some innovator aspects compared with his previous presentation in technical writing which met the guidelines pointed by Rosário Durão in her presentation the day before. Effectively, much information of the presentation had a strong visual content, by focusing and showing the strong visual content of the new work of the designer of the team Patricia Magrinho, the growing importance of the comics in documentation, as well as the selection process for hiring in the documentation team of Altitude Software, the hiring evolution in the documentation team since its beginning and the mean residence time in the team.

The presentation of Daniel Bofill about his firm SISCOG also brought some innovator aspects. Namely, he showed some graphics that underlined the distribution trends of the several work methods according to the different existing specializations in the firm, comparing it with the different flavors in different layers of a cake.

The presentation of Brigit van Loggem coming from Holland evidenced the failures in a documentation model that is namely exposed, in the book “The missing manual” from Pogue Press, O’Reilly.

The last presentation was from one of the contributors of the work “Overview of Facebook Scalable Architecture”, Melyssa Barata from “Instituto Superior de Engenharia” of Coimbra

who enumerated and described some technologies inherent to facebook, namely Haystack technology that allows the storing of billions of photos for facebook.

After the conference, lunchtime was long, gathered several participants — among them were conference speakers as well as organizers and other participants — and was a pleasant and good way of concluding this event.

In conclusion, the event was a very good opportunity to exchange ideas and feel the actuality and trends in Technical Writing and some other related areas.

Laura Barros  
Technical Writer  
Altitude Software, Lisboa, Portugal

## *Seen on Facebook...*

What a fantastic conference ISDOC 2014 was. Excellent organization, small conference, very interesting talks and conversations. Congratulations to the warm, friendly organizers (Carlos Costa, Manuela Aparício, Abílio Oliveira, Baúlio Alturas, Joaquim Baptista and Pedro Costa) for putting together a perfect event. I feel privileged to have been given the opportunity to contribute to it!

And, now, lunch with a great group of technical writers. Yeay :-)

— Rosário Durão



We want to thank to our invited speaker Rosário Durão for her wonderful talk on Communicating Science Visually!

We also want to thank our panel speakers: Carlos Costa, Daniel Bofill, Joaquim Baptista, Marco Neves and Rosário Durão for the most interesting debate on Design of Communication.

For last, but not the least, our thanks to all the authors, session chairs, participants and volunteers for actively participating @ ISDOC 2014!

— EuroSIGDOC

## Keynote address:

# Communicating Science and Technology Visually

Data visuals are everywhere, from the most trite like bar charts to the most complex like network graphs, and computer animations and simulations. While the diversity and abundance of data visuals is clearly a result of our technological revolution, data visuals are, above all, the products of people working for other people. This is nowhere more evident than in science and technology, where the safety and well-being of entire populations is at stake. However, once we shift our focus from data visuals to the human element, human and cultural factors take precedence over the visuals and even the science and engineering that warrant the visuals. What factors are those? How do they affect the conceptualization, production, and communication of data visuals? What does this mean for those involved in the practice, research, teaching and learning of science and technology? To answer these questions, I will report on the results of a pilot study the Visualizing STEM Research Synergy Cluster at NMT did with science and technology students. I will relate the results to research in data visualization, science and technology studies (STS), and cultural and human factors. And I will discuss implications of the pilot study for the visual communication of science and technology.

## Rosário Durão

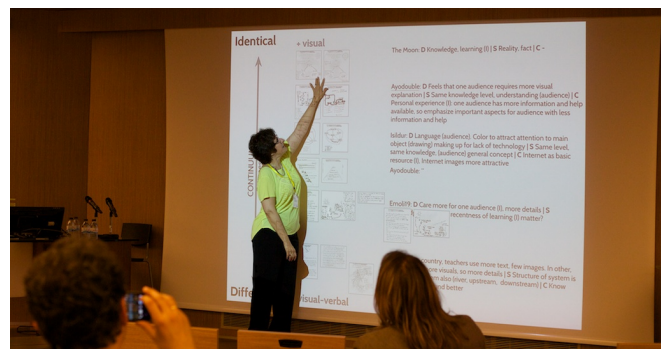
Rosário Durão is an assistant professor of technical communication in the Department of Communication, Liberal Arts, Social Sciences at New Mexico Tech (NMT), where she teaches international professional communication, visual communication, data visualization, web design, and technical writing.

Her research interests lie at the crossroads of international professional communication, data visualization, science and technology studies (STS), and complexity. She is currently investigating the intersection between data visualization, STEM, culture and human factors in a study on S&T visuals. She is also developing a map of the people, projects, tools and educational resources in data visualization.

Rosário is co-director of the Humanizing Technology research project, at NMT, and director of its Visualizing STEM Research Synergy Cluster. She is also the founding editor of *connexions* international professional communication journal.

## Location of slides

On May 2014, the slides used at the keynote address were available from the following address: <http://blogs.nmt.edu/digitalhumanities/library/conferences/>



# Panel: Perspectives on Design of Communication

The wide spread of new media developed new ways of communicating. When technical subjects are communicated, either in a user manual, advertisement or in science, the use of new media are becoming even more important. As a consequence, a "communication designer" need new skills. These new skills involve text construction, manipulation of images, sound video, and all the new environments (especially social networks). This is far from the traditional Graphic Designer or Technical Writer learned skills. So, the need of communicating technical issues is broad, it covers a wide range of contexts, from professional to semi-professional contexts. Design of Communication knowledge is also important to other practitioners that are not necessarily "Communication Designers".

## Panelists

The invited panelists were:

- Carlos J. Costa.  
ISCTE-IUL, Lisboa, Portugal.  
carlos.costa@iscte.pt  
Teacher and researcher (and conference organizer).
- Rosário Durão  
Department of Communication, Liberal Arts, Social Sciences  
New Mexico Institute of Mining and Technology, Socorro, NM, USA. rdurao@nmt.edu  
Especially related to the academic dimension (and keynote speaker).
- Joaquim Baptista  
Altitude Software, Lisboa, Portugal. joaquim.baptista@altitude.com  
A practitioner but also a professional trainer and a manager.
- Daniel Bofill  
SISCOG, Lisboa, Portugal. dbofill@siscog.pt  
Also a practitioner (closing speaker).
- Marco Neves  
Faculty of Architecture, University of Lisbon, Portugal. mneves@fa.ulisboa.pt  
A professor from the Faculty of Architecture (he is competition, because ISCTE also has a Faculty of Architecture, but he is from the University of Lisbon). He is specially into infographics and he teaches an infographics courses at the Universidade Nova de Lisboa.



The following participants of the audience were identified:

- Helena Rodrigues, teacher at ISCTE-IUL.
- Jonatan Lundin, Mälardalen University, Sweden.
- Brigit van Loggem, Open University, Netherlands.
- Jorge Quitério, MSc student at ISCTE-IUL.



The panel was recorded and transcribed by Joaquim Baptista.

## *What content should be covered in a formal training context of design of communication?*

**Carlos:** The panel has a general perspective on the design of communication. In fact some of the issues were discussed yesterday. The panel is focused on the importance of not just technical writing, not only graphical design, it mixes those perspectives. On the other hand, one important item it is the democratization of these fields. Everyone heard Rosário talk yesterday on the need to communicate effectively, not only in writing, but using graphics, using drawings, and so on. And in this context I put a question.

In your opinion what content should be covered in formal training context of design of communication? Probably I will start with Joaquim or Daniel because you are practitioners and probably you have this need.

**Joaquim:** I can talk from my own experience. The major limitation that I have found is a very simple one, it is actually people that can write in English. From the Portuguese Universities I see a lot of people that can read English very well, perhaps they can talk, but they are not used to write at all. And so they have a huge difficulty in putting together text.

Most people that I considered interesting and that I would like to hire were rejected because they could not write well enough. It is not reasonable of me as an employer to teach them to write English. It is not something that you teach in a month.

After that I mostly need bright people and I teach everything else.

The funny thing is, when I hired people that had been doing technical writing before, although not with a formal training, at the end it did not turn out so well. The people did not really fit the job that we have, so it didn't go so well.

I would love to have formal training on the tools that technical writers use, on organizing ideas, on crafting the different kinds of outputs. That would be nice but, at the end of the day, you have to learn so you have to learn your tools as well.

**Daniel:** When I began technical writing, it came down to reading a lot of stuff from the Internet about how to communicate with the end user. It was all very general, how just to

put words on paper or online or wherever and get whatever message the company wanted to get across to the end user.

What I found is that it wasn't enough because technical writing seems to have exploded. You have to know a little bit of everything: it's information architecture, it's design, it's the tools, you have to be techie, you have to be arty, creative, you have to know what type of style you are writing in, if you are informal or formal, you have to know a little bit of a linguistics and terminology...

You have to know so much about everything that the only thing I really could think of that a university level could provide would be Content Management Strategy, because not all companies provide it and because I recently found that I needed to start from the beginning and see the whole picture again.

And you know, the whole thing about yesterday, Rosário said that "It depends...". I think that's exactly what we should learn to look at, what the things depend on: the end-user, the linguistics, the tools, the styles, our outputs if we are single-sourcing, if we are just maintaining multiple docs. You don't have a strategy laid out if you don't learn how to create a strategy...

In any environment that you get into, you can get formal training on specifics, but you probably can't learn to understand that big picture. Formally, teach people how to interpret the big picture.

**Carlos:** Now, in the perspective of the teachers in text production and graphical production, what is your perspective?

**Rosário:** When I started thinking about design of communication, I thought "What does communication mean? Communication is not speaking... that doesn't get across. To communicate is to start a conversation, basically." So you have to produce things in such a way that a conversation becomes natural – first possible and then natural – a conversation with the user, whoever he or she is, wherever he or she is.

On the other hand, design, what differentiates it mostly from art is you design something for a specific purpose, whereas art is mostly expressive, you don't have to have a purpose.

And so when you put these two together and you think of how to teach design of communication, or what to include in a program or anything related to design of communication, it seems to me one of the most ambitious things you can do because communication is everywhere.

This is one of the things I notice where I teach mostly engineers and scientists... when they come to me in a technical writing class, for instance, and they think that all that matters is the content: what they know, the specialization, the terminology, and all that... and then I tell them: "You know, that's not quite right. That's very important. But if you cannot communicate with your audience, what you know isn't worth anything." That's a striking realization for them. And it's very hard to turn things round, but it happens, and it happens beautifully.

So, what do we need to take into account from a design of communication perspective and a training perspective? Because it is highly ambitious, we need to teach writing, we need to teach design, we need to teach technical skills, tool skills, everything, everything that you mentioned. Now, this is the overarching ideal, so everything that's related to communicating effectively with audiences needs to be covered.

But there is a slight difference between teaching and the workplace; teaching is getting the students to develop transferrable skills; and critical thinking and problem solving skills are very important skills. So, besides covering all of these topics, which will have to be covered in specific disciplines, naturally, sequentially organized – for instance, Technical Writing I, and then Proposal Writing, Design, Multimedia... we cannot limit ourselves to just writing and designing, with the technology nowadays, we cannot get away from the technology, the students have to be very, very good at creating multimedia products as well...

I would say, start small, start with different disciplines in a more organized fashion and then branch off, open it up to project classes, where they are given a problem which has to do with things that actually happen out there and even a problem that is for a real client. And then assist them, just guide them to the answers and let them find the answers themselves.

So, what I find very different with design of communication from the teaching point of view is the breadth: it's huge!

**Marco:** I fell like I am a little bit further from that because I've been studying communication design for maybe more than 15 years by now, and it's still very difficult to connect these two stretches. Communication design is always understood to be something that is more of visual communication design, not such a broad perspective like the one we are having here.

Then you have design of communication that seems a little bit different, because in English language design it has a larger sense. It's very natural for us to say, for instance, we'll design our life, and it's very acceptable. And if you search on Google for design of communication the results will come as communication design. So, although this seems very similar, I think they have different tangible points.

That, somehow, collides with the training that is necessary to approach the design of communication, because we can say that for design of communication we have to establish a certain knowledge about all these areas that you've mentioned. Which seems right. But when we come to the part where we need to understand design, or visual communication design, we have such a broader sense as well, because it's like we talking about a big world inside a big world.

And for that perspective, for communication design, or visual communication design if you like, I have listed just the few basic ones that I've came up with, which is, for instance, typography.

You can't not just know how to write, and display the text. The way in which the text will appear, the font that it has, already is saying something about the communication itself.

There was this twentieth century psychologist that said “you cannot not communicate”, it's impossible. Even us, by just standing here before we start talking, we were already communicating something, by the way we look, by the way we dress, by the way we seat. All these things already communicate something, although it is very implicit, we were not conscienced of that thought.

Besides typography I would say:

- Semiotics, and visual interpretation: the way we look at images, the way we look at all the visual compositions and try to extract some meaning out of it. There is an area that studies just that.
- Image techniques and the notion of the impact that those techniques have, the effect that it may cause on the ones that we are trying to reach.
- Drawing, photography, illustration, because they are all very different, and they say different things, and they try to be used to different audiences, and probably we should have a certain small perspective on which differences one from the other.
- Branding and visual identity, for instance, which is a very different sort of images that we tend to accept on a daily basis and that say something, that have underlying meanings among them.
- Interaction, not just the basic interaction design, but mainly what interaction design means beyond software creation, because you have interaction design in so many other products and messages. We are just not aware of it at the beginning.

But, basically, I would say that we would need a conscience about what is text and what is image, because text and image, the relationship that we can establish in every piece of communication with text and image, will effect the end result of our communication to someone else.

In that case I think that Rosário put it clearly. When we talk about design we are not talking about something that is intuitive or where we rely on the inspiration of a person. It's not about that, it's about conveying a specific message to a specific audience and we should be very careful about the way that messages can be.

**Carlos:** Specifically this issue of training and education, is there any comment from...

**Audience (unidentified):** Yes I do have a comment. It all starts at the university. We have to start teaching undergraduates on this. It's really important. Then, we should move on to PhDs and to other levels of education.

I feel the struggle that you were talking too, and I really need that. I need technical skills to write a paper, I need images, I need to teach, and... where do I go to? And I meant it at this university or any other university... where do I go?

And it is so important that I can go to somebody, some department, that I could go to, and have these issues cleared. And I think that we can talk about it, but we are not solving it.

**Daniel:** Formally there isn't any training on technical writing. Design of communication, I'm sure there is.

You got a specific purpose for what you need, you're writing papers for PhDs. That's why I brought up the Content Management Strategy because, although it doesn't teach you about anything in particular, it does help you to identify what you are going to need to be able to meet your goal.

Maybe I also come from a business perspective. We have a certain strategy that we have to communicate in a certain way to certain clients.

I could use a world of tools and knowledge and designing and whatever, from design of communication, but I won't need to know all of that for that specific purpose.

That's why I mentioned the CMS, it sort of tells you what it is that you need to find. I don't mean that there is one course that can and take care of everything, but once you have found those needs you can do those small courses and learn about return on investment, and whatever, and such you can put your project together and find out what tool, what skill set. I think that is what isn't being taught.

**Marco:** Sorry, just to say two points.

From what I can see, this concern about design of communication is gradually growing. I've noticed that not everyone in every subject area is willing to learn about that. I'm very glad that so many people, and so many people that come from technology areas, are interested in it. Which is very good.

The second point is that I think that you are absolutely right. In terms of, for instance, the university degrees here in Portugal, there is not very much of crossed boundaries between universities, or even inside the same university. I feel it in the university of Lisbon. Just recently a student from one faculty can have a curricular unit from another faculty without added costs, I believe.

But why not try to improve that relationship between different areas of knowledge, which is still very limited nowadays?

**Audience (Jonatan):** I was a technical communication practitioner before I started in research. And I see that there is a huge challenge for technical communicators to craft usable technical documentation since there is little solid knowledge about end-user behavior and information behavior. They know very little about the behaviors of users: when do they need it measured, what type of information do they need, how do they go about finding that information. The user is actively searching and displaying information seeking behavior. All that knowledge is completely missing, I claim, in technical communication.

In the learning information sciences communication there are areas for people investigating information seeking behaviors, for domains that are not usually technical products. And I say we need knowledge about this behavior to be able to design communication as technical communicators. I know I think it's impossible, how can you do that?

So, when we look into the research domains for technical communication in other fields, you see that there is a huge gap in this knowledge.

The question to fund is, why do you think there is such a gap and, what can you do about it, because, as a practitioner, it is off the table to be asked when documenting a product to openly study the user behavior. That is what research has to provide to practitioners, that knowledge. So why is it that there is so little knowledge down in that area and what can we do to increase that knowledge?

**Audience (Brigit):** If I just may add something so that it becomes one question... In general, I think, I can diverge technical writers. And I hit the word to universities, usually in one sentence: technical writing is not a research job, is it?

We first have research interest, not just the information. Well, information-seeking behaviors, but we also have people afraid of technology, how do they interact with tools... That is technical communicators, which is better to have than technical writers, because technical writing is only a bit.

But first we need in academia a research interest in all these questions... indeed all this is information sciences' business. Everybody seems to think this is none of their business!

Can we create a higher education roster of technical writers? No, by definition of it, you shouldn't aim to teach anything for technical writers at the university. Call me old-fashioned, but I thought universities were for research. Sorry, it does mean you want this as the result.

**Joaquim:** I have found recently that people that have a background in research seem to fit into my team much better than other people.

**Audience (Brigit):** I am not surprised.

**Rosário:** This is a big difference I have noticed between Portugal and the US. In the US, there isn't a huge distinction between academia and the workplace. You have people who have PhDs and start their own companies very early in life or people that do their whole academic career and then they retire and start their own companies and they are the most solicited people in the world – I am thinking of Thomas Orr, who used to be the *Transactions on Professional Communication* editor; he retired, he's now a consultant, and he's going all over the place; this is precisely because he came from that research background.

On the other hand, what people do in the workplace is as critical as the research that we do, so I never see things as two distinct entities, but as an ongoing relationship and partnership. They 'feed' each other.

And so, if Portugal is to take on this challenge... and I think that the conditions seem to be there now: we have people who do research, we have practitioners, we have people in the different areas, so it would be a good idea for a university to start doing research and to pass it on in a more structured way – that is how I see teaching – to pass on in a more structured way the theoretical and practical skills, and develop those skills in students.

And I think the time is ripe to actually do an undergraduate or a graduate course in design of communication in the broader sense, because I know that in Portugal people are thirsty for it (like every country), and the country and everyone will benefit very much from it.

I don't know for instance what the situation is in Sweden, and that is my fault – not knowing...

**Audience (Jonatan):** In the Netherlands a masters in technical communication will start this September.

**Rosário:** That is interesting, but then I don't know what type of undergraduate education you have there. Here we have lots of people in Literature and Languages. And people trained in Literature and Languages are not good technical communicators. No! No!

But, for instance, anthropologists – and Anthropology links to your question [looking at Jonatan] – we need lots of relations with Anthropology, Cultural Anthropology specifically, to create the capacity and desire to actually look: how do people use things?

When we get that together with the masters or whatever, and the research... Oh! It will be beautiful. And, you know, the good thing when you start later is that you don't have to make some of the mistakes that other people did; you have that vantage point.

**Carlos:** In Portugal there are some programs in Polytechnic Institute of Lisbon related to some of those subjects. That is not exactly my field, but generally they started with skills related to journalism and then they added some additional skills related to web design and so on.

I think that Universidade Nova also has something related to this.

## *What is the relative importance of textual and visual communication?*

This next question is related to what Rosário taught us yesterday. I ask this question to Marco, because he wasn't here yesterday, so he may give another perspective. In your opinion what is the relative importance of textual and visual communication?

**Marco:** Probably I could start by saying a quote from one of my favorite authors in communication design, which is Jorge Frascara which is a professor at the University of Alberta in Canada.

He based his very short description of what he thinks is communication design in three small points:

- It's a work process where you try to conceive, program, project, or realize some communication.
- It's generally done by industrial means, which is something that, for instance, in visual communication is very important to mention, because you can make some works and projects that are not meant to be produced in large scale, in large quantities.

- And the third and last point, probably the most important, is that the communication design is done with a view towards having an impact on the public's knowledge, attitudes, behavior, and intended direction, which is somehow what we have mentioned already.

We have to make something that goes to certain specific audiences. For instance, if we make a newspaper we know that a lot of people will try to read it, if we make road signals we know that we will be directed in some way... that we will be guided to perform a certain expected task.

So, all sorts of communications have different intentions and when we create that communication we should be aware of what the purpose is and what will it change or affect in people's lives.

Starting from there, I would say that both text and visual communication depend on each other to a certain degree. I don't think it's going to be very worth if we study text first and then visual communication, or visual communication first and text later. They are dependent on each other.

If you don't read Chinese, for instance, you look at Chinese writing and you will not read it you will see it, and for you Chinese writing will become an image that you can or cannot understand.

From the same perspective if I look at an image, a piece of visual communication, I can read it without just seeing it. I can describe what I have in front of me and I can obtain cultural significance out of that, which is what some people call the denotation and connotation. I'm not sure if in English this exists. The structure of the communication and the meaning of the communication.

We had some examples of how that might work. In the early 1920s, 1930s, I think, an Austrian psychologist, Otto Neurath, had an idea of creating a group of images that would replicate the structure that we have in written alphabets.

You know, we have the letters, ABC and so on, all those letters that come up to make text, to make textual information. Those letters have an image origin, they came from several drawings that the Human race founded and then would give them a certain meaning. When we look at the shape A we call it A, we have a sound for it, and when we place all the letters together we have a meaning for that word.

This psychologist tried to do the same, not for letters, because the written alphabet is something of a code that we already know, but he tried to do it for pictures, he called it isotype, which is basically what we nowadays call the pictogram. For example, that drawing that you see in all of the bathrooms. When you want to use the men's bathroom, it has to have a signal, and that signal is a pictogram. That pictogram was created so that people would not just see it but immediately understand it. So, it's a way to read the images.

Another author already mentioned is Robin Kinross. In a small text called "The Rhetoric of Neutrality" he used as examples train schedules, which is the most basic and thrown away

objects that you have. You want to use it to see time tables and that's just it. It doesn't have to be pretty, it doesn't have to be anything. But he studied train schedules several times, from different ages, from different years, to the same transportation systems, and he found that visual and text was always changing. And that change would always have different approaches to the way people would use the tables and would understand their complexity.

Which is the same to say that, no matter what communication you would try to do, to send, it will not be neutral. Whatever form, shape, organization that you give them, that will affect the understanding of the communication. Note that words, text and visual communication form trust.

**Daniel:** On the relative importance of words like you said, it is so contextual and, if you are writing instructions, it is difficult to follow a set of instructions of an image... unless you are building something, like Ikea, which everyone speaks about.

I found that telling a software user means to click here, click there, how to save your file, this is how you are going to do your operation. If I had to do it in pictures, I would get lines, or rows, or columns of pictures, and it would be hard to fix again. Some things have to be textual.

We've tried to study the balance that we should have in our software for our end users. We've done our surveys with our end-users. Like you said about neutral, we have end-users (our Danish customer) that take our text and transform it into a pack of pictures, and that make their own little picture cartoon, with little screen shots and whatever... They use our text instructions and some of the users find it easier and they make posters, and put it up on the wall... So they can follow sets of procedures that load data, print data. And they do like a cartoon.

But we can't adopt what one or other customer wants to do. We have to have a strategy. We try to balance screen shots with text, but we don't really have much of an opinion... We try and, like you said, go to the behavior and see what our clients, how do they do, when do they need the help. What's up and what help do they need?

And lately, I've been just fascinated by the amount of text that's been produced on the internet. We have YouTube and all the video content but... the amount of text that's coming up with blogs or, articles on the sharing... Now, when I go home, or when I'm at home, what I do is I just go through little RSS feeds. RSS feeds are amazing, they just tell you a little bit of everything and just reading, reading, reading, and it's just text, text, text, and you don't need an image to create things.

So, it's difficult to find out where is the relative importance between things, I mean, a set answer.

**Joaquim:** Well, in Altitude we faced that problem very very hard.

At some time people started to complain that we had this kind of Engineering drawings in our documentation, not very beautiful... just a few lines. They were of course right because those drawings were created by Engineers.

And then we hired an illustrator, someone trained in visual arts. And it became a year-long pursuit of figuring out how to best use her. We're still trying to do that.

Because, we have this saying that a picture is worth a thousand words, but when you have a thousand words, it's awfully incredibly hard to find a picture that explains any part of it.

And that's exactly what we are facing. We have all these manuals that we have produced, we have all these things that we are teaching or explaining, and then we can add pictures. But, it turns out that it is actually very hard.

We actually have pictures, not screen captures, but actually drawn pictures that explain something. You might say that each of the pictures, of the important pictures that we created, turned out to be a very long pursuit, like several months to figure out the correct picture.

In my presentation you will actually see our wastebasket of very nice looking pictures that we could not use because they were not good enough, they did not say what we wanted to say, although they looked like perfect pictures.

Each time we got it right, that picture was not one picture, but actually a whole family of pictures. We use that picture to show the variation that was not very easy to understand, but when we could capture that variation in a picture, suddenly we have something that we could put alongside the text and that would kind of inspire and illustrate the difference between that part of the text and other parts of the text that were similar but not quite. And that was quite successful.

But we are still struggling with the idea of how could we systematically add more pictures to everything, or everywhere were we believe that it would count. It's still an open problem for us.

**Marco:** If I may I would say that, if it is so difficult to find a picture, don't use it!

Don't look for pictures just for looking at them. If you are not looking at a picture to illustrate the text, maybe you don't need to say something with both elements. If you are already saying it with text, I would say that it would be enough, I guess.

Although an image has a lot of potential, of course, and it should be always thought about in relation to text, in a piece of communication, if you have image and text, it is not worthy that they are saying the same thing. They should add up to a final meaning of what you are trying to say. I think that is the very big benefit of using them both.

**Joaquim:** That's what we try to do, but it's so hard. When we get it right, we have an image that kind of captures the whole, inspires you with the whole idea, gives you the big picture, and then the text fills out the details. Very often you cannot understand the picture until you learn to read it. But when you learn to read it, the picture is very important, very expressive. But it is difficult to get it correctly.

It has been getting easier. Each time we create an image, we create some visual vocabulary, some way to express those concepts, and what we are finding now is that we are reusing more and more of the things that we already created, and we are starting to

elaborate on the previous vocabulary, we are not starting from scratch. So, the whole process is getting easier.

You might say that the real problem that we have is that our software has concepts that are very abstract and they don't have good analogies in the world. Either you just make pictures of squares and circles, and it doesn't mean anything, or then you have to find clever ways to represent them. But when you can start to make those kind of associations, then it works very well.

## *What is the role of research in the context of design of communication?*

**Carlos:** I still have another challenge. This is a topic that Jonathan has already referred, it is the importance of research. What is the role of research in the context of design of communication?

**Joaquim:** I love the research that I read from Dutch people. They just take what was assumed to be common knowledge, and then they would go and test it in an actual research setting. That works very well for me. But I don't see much of it.

**Rosário:** I think it should be mostly empirical in this area.

Some people, some nationalities, let's say, have a more theoretically oriented research approach – as in Portugal, I think.

But, in this case, definitely do mostly empirical research; see how people do things; have an idea and try it out; don't just limit yourself to theorizing, because communication is about people. But, the spectrum is totally open for research.

**Carlos:** Maybe in this item I also put my experience.

Generally, my research is related to computer science and information systems, but I have links with other specialities, for example psychology, in the field of groupware and collaborative systems. There we often do empirical research. I generally say that I am the electrician and the psychologist is the person that has the ideas, that has the brain. Sometimes we discover some interesting issues. For example, we have been studying idea generation using brainstorming and so on and several types of tools, etc.

And I think that this kind of research may be addressed to other items, for example, this question addressed by Jonathan. I'm thinking about the possible research activities that can be used relating these items. This is a good opportunity of offering and connecting people from design of communication, or communication design, people from computer science, from psychology... I think you will find interesting ways of doing interesting things.

This is my perspective, I don't know what's yours.

**Marco:** When I look at the question, there are two points that I would like to address.

The first one is to develop methods to collect information from the users. In the masters degree that I teach, we try to use the most basic ones (surveys, interviews) and we mostly

use qualitative methods to gather information about the potential users of a certain project. And then, we try to apply that knowledge, that information, to the development of the project in hand, sometimes with good results, sometimes with not so good results. But, it's something that we cannot learn that much from others, because there is not that many work being done in research like this, in the design field or in visual communication areas.

But the second point where I find that research is probably most valuable, is in getting us rid of a certain prejudice that exists about communication or design of communication, which is, that communication must be pleasant, must be beautiful, pretty. That's a prejudice that's almost always present when we talk about design.

And I feel that research, that projects that we've been doing in the communication design masters and PhD, is trying to break that prejudice, because it stands in the way, not only of proper education, all these tools and techniques that we mention here... it's also an obstacle to the creation of innovation. If we want to produce more products, services, that carry on some degree of innovation, something more valuable and useful to people, we cannot let these prejudices become obstacles for that research.

And I think that's where is the most valuable research in this area.

But would like to just say one last thing about that research. Is that I don't know if people are aware but, 2014 is, in Portugal, the year of design. Well, I work in design, I teach design, and I haven't heard nothing about it, so far, and we are almost in the middle of the year. I would think that research would be important for this.

If we show that it's valuable, it carries value for people, I would believe that this situation would somehow be reversed.

**Audience (Jorge Quitério):** On the web, with the introduction of HTML5, we started to use the symbolic language, like font face. Maybe if we regret HTML5 we see a stack of people and we use symbolic language to communicate with them. My question is: do you believe that, someday, we will use the most different ways to communicate with others? On the symbolic language it is possible sometimes, and now we start to use the symbolic language. Will that be possible sometime?

**Joaquim:** Don't the Chinese do it?

**Audience (unidentified):** The Chinese do it. For 4000 years.

**Joaquim:** Yes. The Chinese do it. It's a pictographic communication system. They communicate with pictures that have each one has a specific meaning.

**Daniel:** And the Japanese as well...

**Joaquim:** And the Japanese as well, also. Sorry.

**Marco:** For all I know each symbol is not a specific word, it doesn't translate to a specific word, it can be translated into different words depending on the context, of the position of the symbol.

**Carlos:** Pictograms are also some kind of symbolic language.

**Marco:** I would say that we already do it here as well, because if you came to think about it, the Western alphabet has 26 symbols. When you read it, you convert... We don't read letters, we read words. Because they have a combination of symbols, that's what we read.

**Audience (Jorge Quitério):** Yes. Maybe you don't read one symbol, one letter of the alphabet. But maybe an illustration of some type of thing, maybe, we see Facebook, we only have F. And Twitter, it is only a letter. Maybe someday, one symbol can mean a lot of things. My question is...

**Brigitte:** Chinese is a language that works like that.

**Audience (Jorge Quitério):** But it is not that global.

**Joaquim:** Soon. They are working on that.

**Daniel:** Give it 20 years.

**Rosário:** The way I see it, every form of communication is a language. Sometimes we use the acronym WOVEN: written-oral-visual-electronic-nonverbal. And as I was looking at both of you speaking, you are like me, I mean, you were saying this and going like this [making hand gestures], and all of that is symbolic communication.

There are numerous ways of communicating, and all involve symbols, it's all symbolic communication... the problem with all of them is the amount of people that understand what a gesture means, what a word means, and so on. And when the visual comes in... apparently, the visual is the one that can be most transversal.

But, it's interesting, a while ago somebody came out with 60 or something visual symbols, which they said are totally universal. I looked at some and I said: "What? No!" Those... to be actually universal, there were a number of them that needed to have the written translation in all the different languages and dialects in the world, because they were not straightforward.

And so, I think this is mostly an ambition. There might be one or two symbols or three, I don't know, in the world that will become totally universal – because getting the common understanding is the problem.

What we do have is a continuum from symbols and symbolic languages that are understood by just a small group of people – that's what happens in in-cultures and in-groups like in here. There are things that people said that we all understood, whereas there were topics that I was less familiar with and so, you know, I got part of it... Other symbols like the stop symbol are almost universal. So, the problem is getting people, everyone, on the same level of understanding.

**Carlos:** Just to conclude. I think that we can. I hate it when journalists give a summary that has nothing to do with what has been... I think they are very specialists in doing this. I will not do any summary of what was discussed here.

I just invite you to continue these discussions during the coffee-break.

(Applause)

# Experience report: Altitude Software

Altitude Software is the leading independent contact center vendor for unified interaction solutions.

Altitude Software was founded in 1993. Altitude Software has 300 employees, 17 offices worldwide, 1100 live installations in 80 countries, 300.000 paid licensed users.



What's unique about Altitude uCI™:

- From IVR, to Routing, to Desktop creation, Workflow, Telemarketing, Recording rules, etc, we have a suite of modules to deploy selectively.
- As a true suite, all can be done learning one tool/one class.
- Proven vendor independence, add/change platforms on the fly.
- Predictive Dialer winning Industry awards since 1995.
- The only suite with a single language+editor to manage all modules requires less IT complexity, so you get faster deployment & changes.
- From 15 to 5.000 agent operations, we have been doing it for 20 years.

## Joaquim Baptista

Joaquim Baptista started the documentation team at Altitude Software in 1997. Under his leadership, the team wrote documentation and helps from scratch, then grew to manage translations in 1999, develop a proprietary XML-based documentation system in 2000, champion a company-wide wiki in 2003, adopt the XML DITA standard in 2005, and develop training materials in 2006.

He adopted and refined agile practices since 2004, and published the 2008 practices at ACM SIGDOC'08 under the name uScrum. He continuously adapts the agile practices to suit the needs of an evolving team and evolving workload.

Before tackling documentation he worked as trainer, programmer, system administrator, and academic researcher.



# Patrícia Magrinho

Patrícia Magrinho is a designer in the documentation team of Altitude Software since 2010.

She draws vectorial illustrations that pour insight into the abstract concepts of contact center software.

Since 2013, she draws comics that depict the decisions and interactions of people working at contact centers.

Before technical illustration she designed visual signs to orient people in physical spaces.



## Slides: 20 years of technical writing at Altitude Software

Joaquim Baptista

20 Years of Technical Writing

ISDOC'14  
Lisboa  
Portugal  
17-May-2014

altitude software

Why Start a Technical Writing Department?

English translation of developer Portuguese?

Expensive, outdated, outsourced documentation?

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altitude software

Major points, after 20 years

Learn before writing. "Clear thoughts in clear words."  
Then, learn better, write better.

No formal training on technical writing.

1. Hire English, wits.
2. Train on product.
3. Train on writing.
4. Innovate.

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altitude software (Learning) Operations

Unique concepts.  
Business variation.  
Operational implications of technical decisions.

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altitude software (Learning) Systems

21 services.  
26 applications.  
6 telephony gateways.  
..... 1000 small parameters.

Also, third-party systems.

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altitude software (Learning) Telephony Gateways

Unified telephony model, but...

... varies with switch.  
... varies with switch configuration.

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altitude software (Learning) Scripting

Proprietary language with unique concepts.  
(or your choice of language)

Several worlds to coordinate.  
Specific roles to fulfill.

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altitude software (Learning) Curriculum Development

LESSON  
00:30 -  
01:00 - PRACTICE

Chunking.  
Hands-on exercises.

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altitude software Learning to Illustrate

Patricia Magrinho

tech absolute	1	1	1
tech absolute	2	2	2
tech absolute	3	3	3
tech absolute	4	4	4
tech absolute	5	5	5
tech relative	1	1	1
tech relative	2	2	2
tech relative	3	3	3
tech relative	4	4	4
tech relative	5	5	5

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altitude software Effective Tools

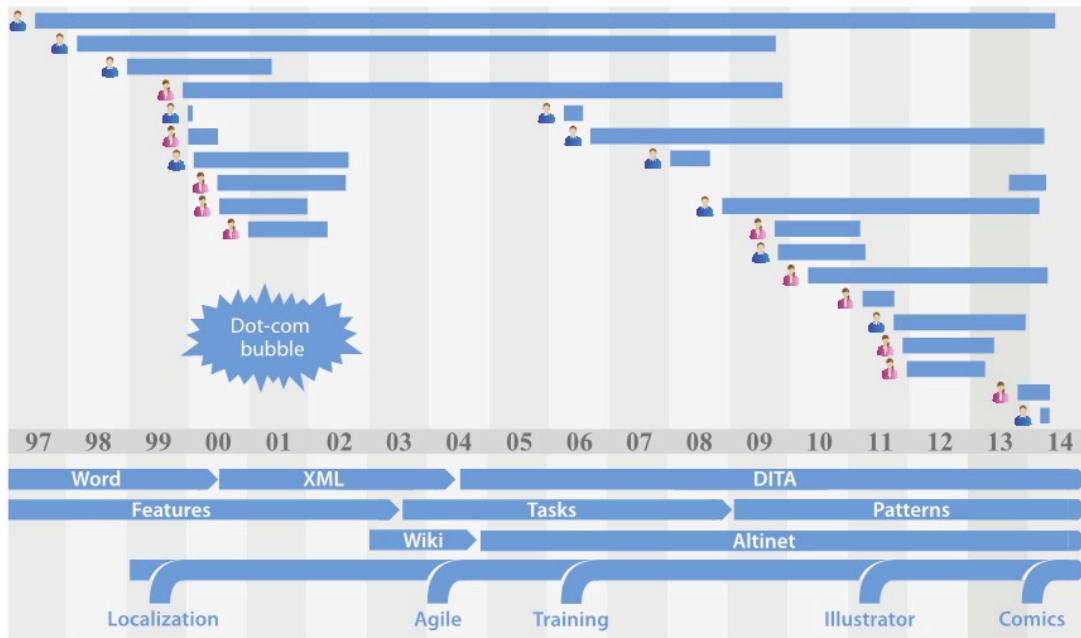
**Operations**

- Books in HTML
- Books in CHM
- Contact Center Operations Indicators and Reports
- uAgent Windows
- uAgent Windows Layout Editor
- Quick Script Editor
- uSupervisor

DITA Open Toolkit.  
Serna XML Editor.  
Subversion, Unix tools.  
Scripts to generate topics.

1360k words.  
6800 topics.  
1075 slides.  
3800 images.  
170 maps.

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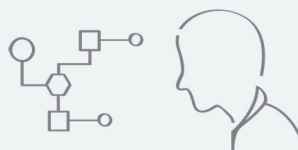


### Professional learners (not just writers).

- Technical writing (for lack of formal training).
- Product (unique, vast).
- Audience background (several of them).

### What has helped?

- Audience profiles.
- Improved training.
- Writing patterns.



"Everything is hard until someone makes it easy." – xkcd.com/1349

# Experience report: SISCOG

SISCOG is a software company that provides decision support systems for resource planning and management in transportation companies, with special experience in the field of railways.



Founded in 1986, SISCOG uses a combination of Artificial Intelligence and Operational Research technologies, resulting in state-of-the-art optimisation software.

SISCOG addresses the biggest challenge of companies nowadays — productivity.

The business drivers for increased competitiveness and the more stringent customer demands for punctuality, product flexibility, and network expansion are the main issues for companies who are expected to meet these requirements while cutting operating costs and maximising revenues.

By understanding transportation companies needs, regardless of their size or complexity, and by speaking their language, SISCOG offers planners and company executives the tools to quickly, effectively, and accurately optimise their resources and daily work.

## Daniel Bofill

Daniel Bofill is a technical writer at SISCOG.

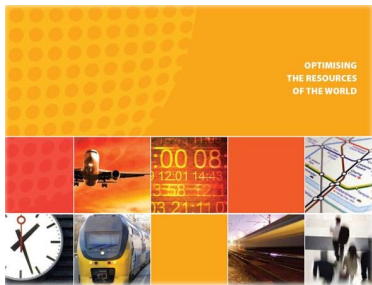
Born and raised in South Africa, he moved to Portugal in 1994 and found that his knowledge of English created the perfect opportunity to learn and explore the new culture, meet new people and share and develop ideas while learning the new language.

Starting off as a technician for plastic card personalisation machinery, his enthusiasm for understanding why things work the way they do quickly led him to coordinate the production and logistics of smartcard loyalty programs. After a short incursion into home design and teaching, he returned to the technical world where he led a team of specialised technicians in taking care of card issuance centers for the banking industry and access control systems.



Having documented and translated countless machine and configuration manuals, he now works hard to create and deliver software user manuals. He continues to teach English and is always up for a game of tennis.

# Slides: Features, layers, modules and variants



## Features, layers, modules and variants.

Assembling the User Manual puzzle.

## SISCOG

Software company

- Founded in 1986
- Working in the railway domain since 1988

Specialized in **planning and management**

**of resources** (timetable, vehicles, staff)

- **Products**
- Systems based on products

Offering powerful optimisers

Helping railway and metro operators around the world



17 May 2014



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17 May 2014



## Our Clients

- London Underground
- Dutch Railways
- Lisbon Metro
- Finnish Railways
- Suburban trains of Copenhagen
- Norwegian Railways
- Danish Railways
- Portuguese Freight Railways

The company with largest number of systems in production in the rail domain

Oldest system has been in continuous operation since 1998

## Solutions for the main resources

- ONTIME**  
Planning and Management of Timetables (**Track & Time**)
- FLEET**  
Planning and Management of **Vehicles**
- CREWS**  
Planning and Management of **Personnel**

3

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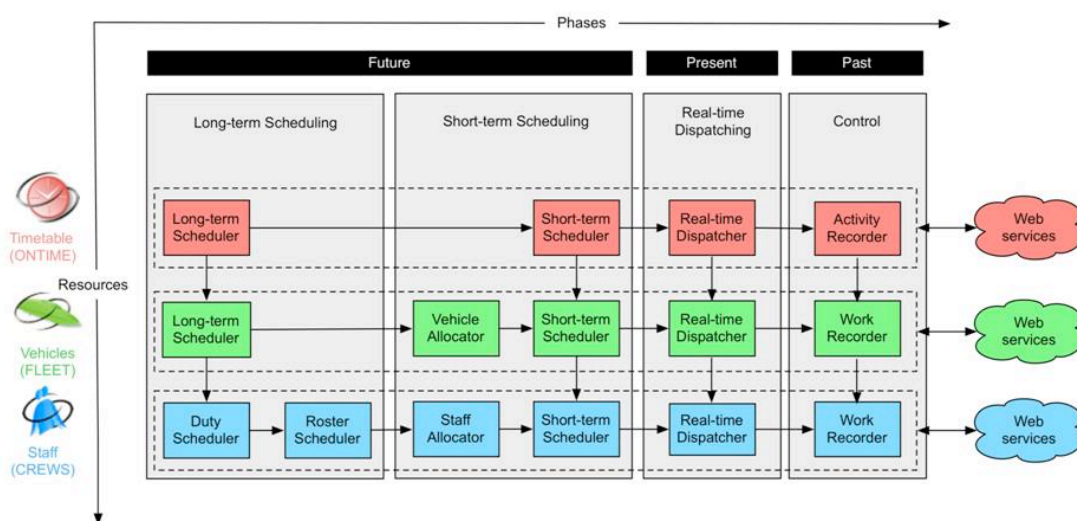


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## Complete integration, for all phases and resources

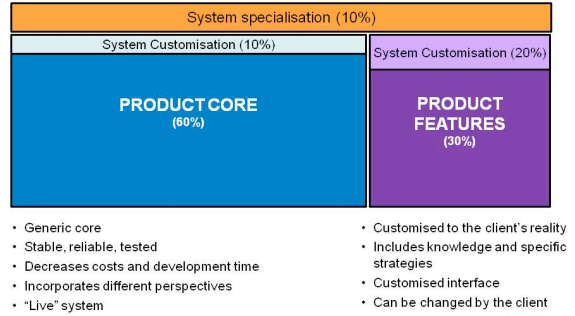


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## General overview

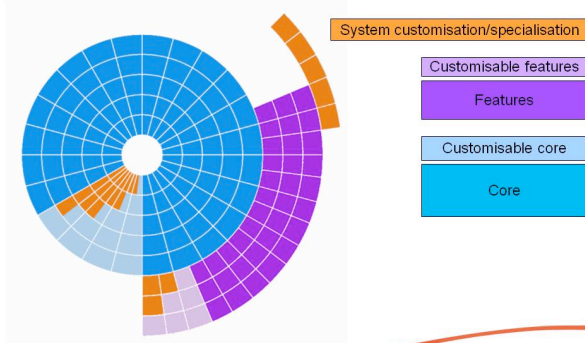


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## A single system

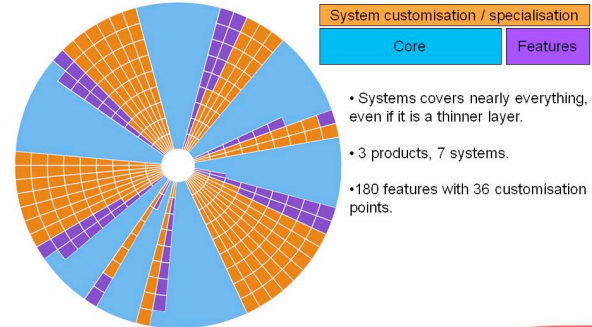


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## All systems united



8

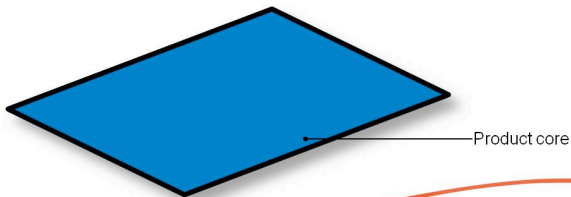
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## Layers

### Product Core

- The base of all our content.
- Interface, architecture, concepts, behaviour.



9

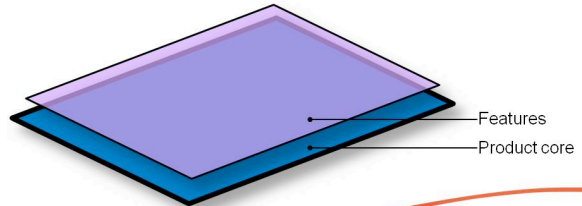
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## Layers

### Features

- A switching mechanism (On/Off).
- Close attention must be paid to know who has what.
- Functionalities, extra operations, modes and levels of operation.



10

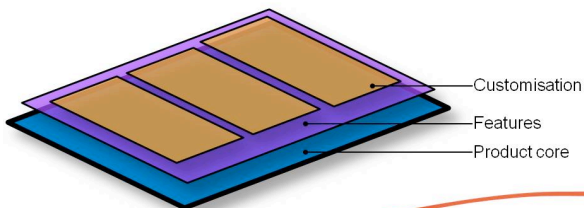
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## Layers

### Customisation

- Still on the product level, which system uses customisation points.
- Domain-specific rules, behaviour...even architecture.
- Includes interface, language, integration to external systems.



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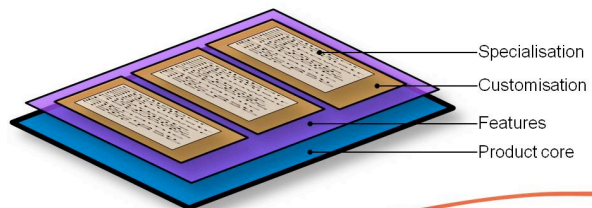
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## Layers

### Specialisation

- System specific add-ons.
- Reports, data visualisation, some interface.
- Importing and exporting.



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# *Institutional support*

## *About EuroSIGDOC*

EuroSIGDOC is an ACM SIGDOC European chapter.

SIGDOC is the Association for Computing Machinery's Special Interest Group (SIG) on the Design of Communication (DOC).

EuroSIGDOC is a group of researchers and practitioners wanting to pursue the SIGDOC mission in a European context.

Like SIGDOC, EuroSIGDOC focuses on the design of communication as it is taught, practiced, researched, and conceptualized in various fields, including technical communication, software engineering, information architecture and usability.

Since 2010, EuroSIGDOC sponsored the following events ([eurosigdoc.acm.org/events.html](http://eurosigdoc.acm.org/events.html)):

- OSDOC 2010 — Workshop Open Source and Design of Communication ([eurosigdoc.acm.org/osdoc2010](http://eurosigdoc.acm.org/osdoc2010));
- OSDOC 2011 — Workshop Open Source and Design of Communication ([eurosigdoc.acm.org/osdoc2011](http://eurosigdoc.acm.org/osdoc2011));
- OSDOC 2012 — Workshop Open Source and Design of Communication ([eurosigdoc.acm.org/osdoc2012](http://eurosigdoc.acm.org/osdoc2012));
- OSDOC 2013 — Workshop Open Source and Design of Communication ([eurosigdoc.acm.org/osdoc2113](http://eurosigdoc.acm.org/osdoc2113));
- ISDOC 2012 — Workshop Information Systems and Design of Communication ([eurosigdoc.acm.org/isdoc2012](http://eurosigdoc.acm.org/isdoc2012));
- ISDOC 2013 — International Conference on Information Systems and Design of Communication ([eurosigdoc.acm.org/isdoc2013](http://eurosigdoc.acm.org/isdoc2013))

Several seminars were sponsored by EuroSIGDOC ([eurosigdoc.acm.org/seminars.html](http://eurosigdoc.acm.org/seminars.html)), and now the Technical Writers @ Lisbon ([eurosigdoc.acm.org/twl](http://eurosigdoc.acm.org/twl)).

— EuroSIGDOC Board

# About APCOMTEC

## APCOMTEC: uma associação interdisciplinar

Desde a sua criação, em 2006, que a APCOMTEC, Associação Portuguesa para a Comunicação Técnica, com sede na UA, tem vindo a promover e divulgar a prática profissional, formativa e de investigação em Comunicação Técnica (CT), em Portugal. Nos últimos anos, procurou dar a conhecer o seu trabalho e divulgar esta área, recente em contexto nacional, tanto através da formação, da organização de eventos, das redes sociais e da Newsletter

## Missão e objetivos

AAPCOMTEC tem por missão o desenvolvimento, a promoção e a representação da Comunicação Técnica em Portugal, bem como dos respetivos profissionais.

Dos objetivos dos atuais órgãos sociais fazem parte o diálogo próximo entre o meio académico e o meio empresarial, a promoção da interdisciplinaridade inerente à CT, nomeadamente com a Tradução, a Terminologia, a Engenharia Informática e a Divulgação de Ciência, bem como o fortalecimento da presença e o reconhecimento da CT a nível nacional e europeu. AAPCOMTEC é associada da TCEurope – associação que representa os interesses da comunidade de Comunicação Técnica a nível europeu.

## O que temos feito

Enquanto agente divulgador e mediador de experiências, conhecimento, informação, produtos e serviços sobre e de Comunicação Técnica, a APCOMTEC tem dinamizado eventos de formação em CT, nomeadamente através das suas Jornadas e do Colóquio Internacional de Comunicação Técnica 2012.

Foram três as **Jornadas** já organizadas em diferentes pontos do país, desde 2011: no DLC/UA, sobre Comunicação Profissional e Design de Informação, na ESTGA, dedicada à Comunicação Profissional e Planeamento na Documentação Técnica, e no ISCAP, coorganizada com o Centro Multimédia de Línguas (CML), sob o tema “Comunicação Técnica: como traduzir negócios em sucesso”.

O objetivo destas Jornadas consistia em reunir especialistas e profissionais, na área da Comunicação Técnica (CT), e dar a conhecer o seu trabalho a futuros especialistas, indo assim ao encontro dos próprios objetivos da APCOMTEC.

Quanto ao **Colóquio Internacional de Comunicação Técnica 2012**, constituído por um Pré-colóquio sobre «Sustentabilidade em Comunicação Técnica» e o Colóquio TCEurope 2012 «Technical Communication and Readership», este teve lugar no Departamento de Línguas e Culturas da U. Aveiro em abril de 2012.

O Pré-colóquio permitiu debater acerca da estreita relação entre a Comunicação Técnica, a Terminologia, a Tradução e a Engenharia Informática, que inegavelmente contribuiu para um desenvolvimento mais preciso, adequado e eficaz, assim como para a criação de documentação mais personalizada e intuitiva.

Quanto ao Colóquio TCEurope, o seu objetivo foi fornecer uma visão geral do estado-da-arte de um tópico tão vasto e desafiante como é o público-alvo em Comunicação Técnica, bem como explorar os diferentes e emergentes meios de comunicação aqui utilizados, trocar informação relativa à comunicação técnica e às suas aplicações, avaliar as vantagens e desvantagens dos diversos formatos de edição e produção, assim como as utilizações, as necessidades e as exigências provenientes da e-sociedade.

Este conjunto de eventos contribuiu certamente para o crescimento da associação, tanto a nível do número dos seus associados como da projeção que conseguiu dar a esta área recente do conhecimento, tendo-se este último facto refletido nos inúmeros contactos de qualidade que a APCOMTEC teve com as **empresas e instituições**, essencialmente a nível nacional.

Já a nível europeu, o esforço da associação em manter a ligação à **TCEurope** tornou-se particularmente profícuo aquando da organização conjunta do evento internacional antes mencionado, assim com nas reuniões de trabalho subsequentes, tendo a última acontecido em Bruxelas, em abril de 2013, onde a APCOMTEC esteve presente.



## About ISCTE-IUL

ISCTE – University Institute of Lisbon (ISCTE-IUL) is a public university established in 1972. Pursuing teaching, research and community service activities, it plays a major role in educating qualified specialists and personnel, whose cultural, scientific and technical skills enable them to contribute to sustainable development both at the national and the global level. The strategic objectives of ISCTE – University Institute of Lisbon are: innovation, quality, internationalization and development of an entrepreneurial culture.

While preserving its public university nature, ISCTE – University Institute of Lisbon is currently one of the three Portuguese universities (along with the University of Porto and the University of Aveiro) which opted the Foundation Regime, the latter prescribing management according to private law.

With approximately 8500 students enrolled in undergraduate (52%) and postgraduate (48%) programs, 450 teachers and 220 non-teaching staff, ISCTE – University Institute of Lisbon is proud to be one of the most dynamic and innovative universities in the country. Facing high demand, the student vacancies at the ISCTE – University Institute of Lisbon have always been fully occupied.

- ISCTE-IUL is constituted by four schools:
- ISCTE-IUL Business School (IBS)
- School of Social and Human Sciences (ECSH)
- School of Sociology and Public Policy (ESPP)
- ISCTE-IUL School of Technology and Architecture (ISTA)



ISCTE – University Institute of Lisbon encourages students to fully exploit their potential, to develop their capability for initiative and flexibility and to complement their academic education with international experience, enabling them with the necessary skills to adapt to the needs of the global labour market. ISCTE – University Institute of Lisbon demonstrates a high rate of graduates' employability and achieves the 100% rate in most of the courses. Its former students currently occupy positions of high responsibility in private companies, public institutions and governmental entities, which confirms not only the prestige of our institution, but also its teaching quality.

ISCTE – University Institute of Lisbon is a *research university*, with nine research centers evaluated by the Foundation for Science and Technology.

At community service level, the scholars and graduates of the ISCTE – University Institute of Lisbon have contributed to establishing multiple connections with private companies and public and civil society organizations. One of the most outstanding examples is the Institute for Management Development (INDEG), which employs activities of strong public recognition in the domains of education, postgraduate studies and research and community service in the areas of its jurisdiction.

In the domain of entrepreneurship, the research center AUDAX is nowadays a national reference as it has developed partnerships with various local authorities, business associations, COTEC and the Massachusetts Institute of Technology (MIT).