“Learning by doing the tasks was much more productive than just attending to theories in a slide.”

Rosário Durão
New Mexico Tech

Joaquim Baptista
KM Consultant

Ana Figueiras
ReThinkingVis

Rute Costa
CLUNL

The 8th Report
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Continuing our recent rush of formal presentations, we are pleased to announce a special full-day joint event.

**The event**

**When:** 23 May, 2015  
09h00—17h00

**Where:** ISCTE-IUL, building “Ala Autónoma”, room “Afonso Barros”  
Avenida das Forças Armadas — 1649-026 Lisboa

**The programme:**

— Rosário Durão, New Mexico Tech (9h00-12h00)  
*Reframing, or: how I learned to stop worrying and love putting students at the helm*

— Joaquim Baptista, Knowledge Management consultant (13h30-14h00)  
*ISTC Survey 2014: What can we learn from it?*

— Ana Figueiras, Digital Media PhD candidate (14h00-15h00)  
*ReThinking Visualization*

— Rute Costa, Centro de Linguística da Universidade Nova de Lisboa (15h30-16h30)  
*On the Importance of Terminology*
What happened?

Nineteen different people attended the meeting, including sixteen in the morning, twelve at lunch, and fourteen in the afternoon. Some people only came in the morning or afternoon.

At the end of the day, I believe that the attendees met new people, enjoyed themselves, and learned. Of course, we always wish for more people.

Rosário Durão started at 09:15. She quickly started to demonstrate the active learning methods that she uses to teach at New Mexico Tech: minutes later, the attendees were already working in pairs, sharing with each other the work that they had just done by themselves.

A few minutes more and the attendees were working in groups of four, sharing their views and reaching consensus. The first exercise was an ice-breaker, chosen to introduce the group members to each other, while making them think about technical writing. The attendees took the challenge very seriously, even if it included talking about introducing themselves to an alien.

Rosário approached the groups one-by-one, listening to make sure that the dynamics of the group was producing the expected results. Asking the students to work in the class frees the teacher to observe, think, and intervene when necessary.
Finally, the three group managers presented the results of each group to the whole class. The engagement of the attendees meant that the discussion might very well have proceeded for the whole morning, but Rosário kept the time and interrupted the discussions as needed.

Rosário then demonstrated how a teacher can turn a typical presentation-style class into an active learning exercise. The attendees were given copies of a book chapter, divided into four parts. In each group, people read and summarized the four parts individually, then interacted to understand the major points of the chapter.

And so we reached “the coffee break with a smile(y)”. We moved to the cafeteria, ordered coffee or food, enjoyed the conversations, and met some new people.

After the break, Rosário showed photos of engaged students, actively learning in poses that many teachers would find less than adequate. For Rosário, everything is fair game as long as the students learn and the facilities are fully preserved.

Janet Callahan from Boise State University did a 3-day workshop in 2013 that changed the teaching practice at New Mexico Tech. Janet characterized active learning as having an element of doing or observing, followed by reflective dialogue.
Of course, Rosário immediately started to practice what she was preaching. So, attendees were asked to write a topic for an active-learning exercise on a post-it note. The post-it notes were shared in pairs, and ultimately shared on the wall for everyone to see.

Rosário also told stories behind her three courses, TC 151, TC 211, and TC 361/561. Attendees were asked to pick apart the syllabus of the courses, looking for interesting properties to share with the group. Attendees also identified active-learning exercises that they could adapt to their own teaching practice.

Time was running out, so Rosário skipped the final exercises that asked the attendees to create a quadchart (an A4 page divided into four parts) that proposed an active-learning lesson, in effect proving that the attendees had applied the ideas to their own practice.

Lunch started later than expected at 13:00. Still, we were fortunate to still get a table for twelve at Restaurante Cinderela, where the immediate buffet and the varied deserts refreshed everyone.

After lunch I presented the results of the ISTC survey from 2014, directly out of Survey Monkey. As expected, the results generated interesting comments and conversations, as the attendees compared the survey results with their expectations and experience. Five persons turned in written comments.

Ana Figueiras showed off her classification of 200 visuals with examples, which generated the expected open conversation. She wishes to understand what works, and then to propose guidelines to create better visualizations. She would like to introduce storytelling in visualization.
The topic generated an interesting discussion. Ana focuses on visualizations published in the general media. At least The Guardian started to publish the spreadsheets behind the visualizations, creating the ability to experiment with alternatives, or to explore the data in further detail.

When questioned, Ana explored the cultural issue of empathy and emotion related to specific graphics. Graphics that create empathy in a culture create strong aversion in another.

The audience raised the point that visualization is important to clarify information for management, therefore supporting better decisions. This area might be more important than visualization for general audiences.

Rute Costa started by noticing that the knowledge about the Portuguese language has evolved very little in her lifetime, even though the tolls have evolved a lot. She does not believe in fully automatic translation; for example, Google uses statistics instead of deeper knowledge of languages.

Rute defined terminology, term, and concept. 40 students from Angola study with her and prof. Teresa Lino, aiming to systematize government terminology in Angola.

Rute worked at the Portuguese Parliament for seven years. She told how her students took three months to negotiate a consensual definition of deputy.

INE could not find a criteria to distinguish between tourist and traveller. They ended up dropping the concept of traveller.
Rute also told several stories around her career as a member of ISO TC 37 since 2000.

Rute closed the event with a warning to translators. Knowing a language counts very little for a translator, because all translators know the language (especially English). You need something else: the ability to search for information, tools, more languages.

We cleared the room around 18:00, just a little concerned that we might be trapped inside a closed building. We continued the conversation outside for another hour until the last people left ISCTE.

**Delayed serendipity**

While everything appeared extremely well prepared in the morning, Rosário was actually introducing active-learning exercises into her class late in the evening. She was prepared to go out late into the night in search of post-its. For no special reason, Clélia Oliveira had provided the post-its about three months ago. Think about delayed serendipity.

**The thrice-patched poster**

Aline Lopes first prompted Rosário Durão to create an official poster for the event, and then printed the A3 posters in color. Alas, the posters were already printed by the time Carlos Costa raised a naming issue: ISTAR had reserved the room for the event under the name “Desafios da Comunicação Técnica” (which translates to Challenges of Technical Communication). The solution was to patch the already printed posters with the name, printed on a separate sheet of paper.

Finding the door closed after lunch was a real problem. We figured out that we should enter the ISCTE complex through the main door, but the attendees expected to arrive after lunch would not know that. So, we patched the poster for the second time, directing late-comers to the proper building.

As we got to the main entrance, however, we found-out that the internal corridor between the buildings was closed. We were to return to the original entrance and wait for the guard, which had left temporarily to fetch his own lunch. And so we returned to the door, and the guard arrived, and we scratched the changed directions from the poster.

You might say that the poster demonstrated the actual challenges of technical communication.

— Joaquim Baptista, px@acm.org
Rosário Durão

Rosário Durão is an assistant professor in technical communication at New Mexico Tech. She joined the Department of Communication, Liberal Arts, Social Sciences in the fall of 2012. Before then she was a postdoctoral fellow in Communication Sciences from the Fundação para a Ciência e Tecnologia.

Currently, she investigates the intersections between data visualization, science and technology, culture, and human factors in studies on science and technology visuals in intercultural contexts. The VISTAC—Science and Technology Visuals in Action project explores the differences and similarities in the visualization practices and visual representations of scientists and engineers from different parts of the globe, in their workplaces, to detect universal and culture-specific attributes of the visuals and visualization practices. The VISTAC – Science and Technology Visuals in Translation seeks to understand the translation practices of visuals in translated science and technology documentation. Rosário is also developing the Data Visualization Map (DVMap) project, which charts, in an interactive network map, the researchers and practitioners working in data visualization, as well as the data visualization projects, tools, programs and educational opportunities across the world.

She coordinates the Humanizing Tech/nology research project at NMT, and directs its Visualizing STEM Research Synergy Cluster. She is also the founding editor and current co-editor of connexions • international professional communication journal.

About New Mexico Tech (NMT)

New Mexico Tech serves the state and beyond through education, research, and service, focused in science, technology, engineering, and mathematics. Involved faculty educate a diverse student body in rigorous and collaborative programs, preparing scientists and engineers for the future. Our innovative and interdisciplinary research expands the reach of humanity's knowledge and capabilities. Researchers, faculty, and students work together to solve real world problems. Our economic development and technology transfer benefit the economy of the state and create opportunities for success. We serve the public through applied research, professional development, and teacher education, benefitting the people of New Mexico.
About the Dept. of Communication, Liberal Arts, Social Sciences

The Department of Communications, Liberal Arts and Social Sciences is a diverse, interconnected group of faculty and students. The mission of the Department is to develop students’ ability to learn, reason, and communicate in diverse fields of study and areas of human experience. The Department offers an industry-endorsed Bachelor of Science in Technical Communication, a Bachelor of General Studies (B.G.S.), and an Associate’s of General Studies (A.G.S.) degree. It further offers a graduate Certificate in Scientific and Professional Communication, and minors in Hispanic Studies, History, Literature, Philosophy, and Technical Communication, allowing students to enrich their studies at Tech to become successful professionals and knowledgeable members of society.

Reframing

Our journey today

Reframing
or: how I learned to stop worrying
and love putting students at the helm

At the helm
(9:00-10:00)
Active-learning class

Coffee with a smile(y)

Or: how I learned to stop worrying
(10:30-12:00)
- My experiences, classes and
teaching methodologies at NMT
- Ideas for your classes and
workshops

Mechanics

We will all move around in this room.

Sometimes the sound will be high.
To regain your attention, I will raise
my hand. When you see me raise my
hand, please raise your hand also.

When the time is up for a specific
activity, please stop where you are.

At the helm

Getting to know us
(9:05-9:30)

Activity 1:
Communicating with different
audiences

Learning outcomes:
- Ability to prepare information for
different audiences
- Ability to work in small groups with
well-defined roles

Tools: Pen/pencil and paper

(2 min.)

In silence, pair up with someone
you do not know.

On a piece of paper, draw a
diverging radial like the one on the
next slide and write your first and
last name where “[my name]” is.

(2 min.)
The person with last name coming first in the alphabet thinks of two (2) words to describe themselves to the person or group in each bubble.
Write the words inside the bubbles, saying them out loud as you do so.
(2 min.)

Tell your partner anything else they need to know you better.
(1 min.)
Your partner asks two (2) follow-up questions and you answer them.
(2 min.)

Get together with another group and repeat the process with each person, leaving out the writing down part.
(3 min.)

In each group, choose
• Group manager – (leads the discussions) person who went furthest away from Portugal last summer.
• Timekeeper – (keeps time) person to right of the group manager.
• Recorder – (takes notes) person to right of timekeeper.
• Spokesperson – (presents results orally) person to right of recorder.
(1 min.)

Prepare a 1 min. presentation of the group.
(3 min.)
The spokesperson presents the group to everyone else.

Close your eyes
Breathe in slowly
Hold your breath to the count of
1
2
3
Breathe out slowly

Activity 2: Distributed knowledge learning and critical thinking practice
Learning outcomes:
• Ability to critically analyse and present the outcome of a distributed knowledge activity
• Ability to summarize the result of a distributed knowledge activity
Tools: Pen/pencil and paper

Form four (4) equal sized groups.
Group A picks up page A (A.1 & A.2) from my desk, group B page B, and so on...
Go round the room and find the remaining letters.
Form groups of four (4). Each group will have all four letters: A, B, C and D.
(2 min.)
Or: how I learned to stop worrying and love putting students at the helm
**Technical Writers @ Lisbon — ISCTE, May 23rd, 2015 — The 8th Report — 13 / 39**

**Active-learning workshop**

Both Sides of the Equation: Learning and Teaching - A workshop focused on best practices for engaging STEM students in their learning

Janet Callahan, Boise State University

Part I: August 15-16, 2013
Part II: September 20, 2013

**Bonwell & Eison, 1991. p. 3**

“many faculty assert that all learning is inherently active and that students are therefore actively involved while listening to formal presentations in the classroom... students must do more than just listen: They must read, write, discuss, or be engaged in solving problems. Most important, to be actively involved, students must engage in such higher-order thinking tasks as analysis, synthesis, and evaluation. Within this context, it is proposed that strategies promoting active learning be defined as instructional activities involving students in doing things and thinking about what they are doing.”

**Callahan, 2013**

“What makes an exercise “active learning”?

- Passive learning – we are the spout, students are the vessel – they receive the information, we pour it out (usually via lectures with amazing, comprehensive, sometimes even animated slides)
- Active learning – there is an experience (making it active instead of passive) – this involves Doing – or Observing; and then there is Reflective Dialogue – Engagement – with Self, and/or Others.
- Both methods, have Content*

*from Aug. 16 slides

**Callahan, 2013**

A holistic view of active-learning

[Diagram of DO-ing, Reflective Dialogue, Information & Ideas (Content), Reflective Dialogue (with self, others)]

[Diagram from Aug. 16 slides]

**Froyd, n.d.**

8 promising practices for undergraduate STEM education

1. Prepare a set of learning outcomes
2. Organize students in small groups
3. Organize students in learning communities
4. Scenario-based content organization
5. Providing students feedback through systematic formative assessment
6. Designing in-class activities to actively engage students
7. Undergraduate research
8. Faculty-initiated approaches to student-faculty interactions

**Brainstorming (7 min.)**

- Think about
  - One (1) topic for an active-learning exercise and write it down on a Post-it. Write a max. of six (6) words.
  - (2 min.)
- Pair up with someone you do not know (well).
- Show them your Post-It note.
  - The partner asks two (2) follow-up questions.
  - (2 min.)
- Switch roles.
  - (2 min.)
- Put your Post-Its up on the wall.
  - (2 min.)

**Spring 2015**

TC 151 – Introduction to Visual Communication
TC 211 – Media Studies
TC 361/561 – Data Visualization

**TC 151 Introduction to Visual Communication**

What do I want them to learn/know (how to do) at the end of the semester?

Content:
- basic principles of visual communication and be able to apply them critically
- Active learning:
  - metacognitive skills
  - learning as cumulative
  - value of critique and redo
  - scenario-based assignments
  - initiation to group work
Your thoughts on the syllabus
Get into groups of four (4).
The youngest person in the group looks through the syllabus for 1 min. and passes it on to the person on their right who looks through it for 1 min. and passes it on... until everyone has done it. (timekeeper)

The first person to read the syllabus tells their group two things that caught their attention.
The person to their right does the same... until everyone has spoken.
Note: you cannot repeat what a colleague has said.
(group manager and timekeeper)

Module 3. Arranging information for clarity
Pass on Module handout.

Look through the Module 3 handout.

What active-learning exercises are there? How many of these strategies are new to you? Which one would you like to be able to apply next week in a class or workshop of your own?

Pair up with the person on your left.
The person with a pet whose name starts with D or is closest to D shares with their partner an active-learning exercise they would like to do.

Switch roles.

Each person writes down the exercise they would like to do on a Post-it and puts the note on the wall.

Student feedback
“The very first exercise we did as a group was to each add to a drawing on the board. Our collective creativity led us to a very interesting depiction of Socorro. I realized that the point was to understand the creative process in designing graphics. Different perceptions and approaches can lead to all sorts of unique results. The process of working as a group requires some form of compatibility between the ideas of each member. The contribution of everyone compounds to make a more balanced product.”

Student feedback
“Hang on!”
“The clock will eventually go away!”
“The last day to drop classes is August 31st.”

TC 211 Media Studies
What do I want them to learn/know (how to do) at the end of the semester?
Content:
• different types of media, how they developed, differences and similarities in different parts of the world
• media theories.
Active learning:
• metacognitive skills
• question everything
• share learning
• motivate colleagues.

Think of the most effective class/workshop you had and the least effective one. Write each one on a Post-it note.
Find a partner.
Show them your Post-It notes and discuss why you think this happened.
Switch roles.
Put up your Post-It notes on the wall.
Classes 7 to 18

1 media industry/week
- Tuesdays: in-class exploration and discussion of the chosen topic led by 3-4 students.
- Thursdays: group presentations (3-4 people) related to that week’s media industry.

Requirements:
- Creative/imaginative and critical presentation.
- Include samples from 3 to 4 types of media, e.g., photographs, videos, newspapers, advertisements.

Classes 19 to 28

In pairs, you will present a topic of your choice.

Requirements:
- Analyze how the topic was/is being treated in 4 different types of media and 4 countries.
- Perform analysis from the perspective of two or more of the following points of view covered in previous classes.
- Presentation must include illustrative examples of what you are saying and referring to.
- End the presentation with 3 questions for your classmates.

Reflective essay for Portfolio

- My progress and accomplishments in the class
- The quality of my work
- What I could have done differently, how I would have done it differently and why I would have done it differently
- What I found positive and less positive about the class
- The relevance of the course for me
- How what I learned in the class applies to an aspect of my life
- The questions the class raised for me
- What I am still wondering about
- My best work (pick 3 artifacts you did in this class and explain why they are your best work)

TC 361/561
Data Visualization

What do I want them to learn/know (how to do) at the end of the semester?

Content:
- History of data visualization
- Theories of data visualization
- Complex data visualization project

Active learning:
- Metacognitive skills
- Distributed learning
- Collaborative project

TC 361/51
syllabus

First half of semester readings
- In groups of four (4), discuss readings done and analyzed before class* (take turns; 1 min. per student)
- Prepare group summary
- Present to class
- HV: write responses and write single report
- Critique visuals online based on readings

Final project: Complex data visualization project:
- Lab notebook (group): 10%
- Data visual and presentation* (group): 16%
- Paper on your project** (individual): 15%
- Data visualization tool (individual): 10%
March 30 [Guided analysis]
- Is the graphic explanatory or exploratory (and interactive)?
- What is the first thing you want the viewer to see?
- Composition: How will the elements be organized? How will they be related to each other?
- Abstract: What are the basic qualities and/or meaning of the contents? How will they be represented?
- Color: How will you use color? Will you use it to draw attention? Label? Show relationships? Indicate a visual scale of measure?
- Layer: Will you add layers to overlap multiple variables?
- Refine: How can you simplify your design?

Projects:
- New Mexican public school nutrition values compared with FDA recommendations – website
- Effect of different biofuel mixtures on emissions from compression ignition engines – interactive visual
- Allometry – graphical abstract
- MRO interferometer – videos

Allometry graphical abstract

MRO interferometer videos

Student feedback
- Prepare presentations outside of class
- More critiquing visuals
- Papers with application part also
- Integrate tools in 1st half of semester

Transition (5 min.)
Go to the wall where the Post-It notes are.
Pick any six (6) notes and read them.
Go back to where you were sitting and write a full sentence related to or inspired by the notes you read.
Put up your note on the wall.

Reframing
Think of an active-learning, project-based idea for a class or workshop you will do/have in the future.
Think of the content it addresses.
Think of what the reflective component will be.
(10 min.)

Find a partner you haven’t worked with.
Tell them your idea in 2 min.
Switch roles.
Repeat two (2) more times with two (2) other partners.
(12 min.)

Your turn...
Sit down and create a quadchart (see next two slides for examples) with the refinements to your ideas for your class.

(8 min.)

Put up your quadchart on the wall.

(2 min.)

Look at the person on your right and talk about your quadcharts.

(8 min.)
References


Other active-learning resources


Classroom structures which encourage student participation handout. Available at http://www.cte.cornell.edu/documents/Classroom%20Structures.pdf

Faculty Focus: Higher Ed Teaching Strategies from Magna Publications.


UNM-Valencia. First day of class activities-icebreakers. Available at [http://www.unm.edu/~tlc/contents/web_resources/first_day_of_class.html](http://www.unm.edu/~tlc/contents/web_resources/first_day_of_class.html)

Joaquim Baptista

Joaquim starts 2015 as an independent consultant. He draws on his extensive experience to offer effective solutions with the sophistication that typically requires a whole team of consultants.


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.

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**Joaquim “px” Baptista**

Effective Knowledge for Effective People.
Your flexible consultant for knowledge management.

Learn what your company should know!
Learn where you stand to plan for the future.
Your company cannot manage what it does not know.

Manage with agility!
Discover and deliver incrementally.
Remove annoyances, manage risk.

Optimize the flow of your company knowledge!
Structure the company knowledge for consumption and maintenance.
Have a place for everything.

Make your knowledge easy to consume!
Write clear thoughts in clear words.
Inspire with illustrations and comics.
Explain APIs with code samples.

Design effective training and demos!
Create inspiring demos.
Create hands-on lessons or tutorials with guaranteed learning objectives.

Craft your company software!
Capture requirements precisely.
Design the customer experience.
Streamline decisions for everyone. Automate.

Protect the future with open formats!
Embrace flexible tools and open formats that adapt to the growing needs of your company.

www.pxquim.com — px@acm.org — +351 91 784 2996
ISTC Survey 2014: What can we learn from it?

The Institute of Scientific and Technical Communicators (ISTC) represents information development professionals in the UK. The Institute validates the qualifications and experience of its prospective members. Membership fees for 2014 range from £26 to £94, depending on the member grade.

The ISTC surveyed its members at the beginning of 2014, but participation was open to everyone, including professionals outside the UK. I received an 18-page draft of the results. The survey had 203 responses, including 42 from non-members and 26 from outside the UK.

The information development professionals are not organized well enough in Portugal to conduct a similar study. As an alternative, I displayed the results to the attendees and collected written ideas, doubts, comments, and reflections from the attendees. I collected five valid responses.

In the report below, I state the survey question, my remarks regarding the answer, and the remarks of the attendees.

1. What is your highest academic qualification?

On the survey, 60% of the respondents had a bachelor’s or master’s degree, and 5% had a PhD. There were a number unknown of 3-letter acronyms corresponding to specific UK grades and certifications.

   #6: There is a surprising variety of qualifications. Many are unknown to me but, as expected, university courses of 3 to 5 years are the most frequent.

2. What is the subject of your highest qualification?

There are three pages of education subjects, without any attempt to group or consolidate answers. Still, 10 subjects relate to business, 17 to computing, 20 to electronics, 19 to English, 11 to mechanical engineering, 6 to physics, and 19 to technical communication.

   #1: Most of the courses were related to scientific areas. This could be related to the fact that those courses have a large amount of biography in English. In other words, attending a high degree course in a scientific area can open you doors to technical writing in English.

   #2: Specify year to avoid ambiguous concepts, for example, before and after Bologna. Create table with big categories with space for specifications.

   #6: They should have grouped the education by area, because this list is tiring to read. The variety surprises me. However, surprisingly, few people took courses in humanities or social sciences.
3. When did you last attend a training course?

63% of the respondents had training in the last two years, including 34% that had training in the last six months.

#2: Retired — consider what training to put?
#4: Training should be continuous.
#6: It would be expected for technical writers to attend lots of training courses.

4. What is your employment status?

The respondents reported 73% full-time employees, 7% part-time employees, 10% self-employed, and 5% contractors (working through agencies).

#2: Consider volunteer activity?
#4: It is strange that there are no students.
#6: I like that these technical writers have relatively stable jobs.

5. How many years have you worked as a technical communicator?

The respondents are mostly mature technical communicators, with 70% having at least 10 years of experience, and 33% with 20 years or more.

#2: Clarify concept.
#4: This demonstrates that the members involved are much older.
#6: It is a pity that almost all respondents are at least 40 years old. Young people should be more involved. The table is not done well!

6. What is your job title?

62% are technical writers, technical authors, or technical communicators.

#2: Depends on whether the concept is clear.
#4: Many persons do not know their own title.
#6: It is funny that some technical writers are not, in a certain way, technical writers.

7. How many technical communicators do you work with in your organization?

33% are sole technical writers, 40% work in small teams of 2 to 5.

#2: Depends on the concept — related to 5 and 6.
#6: The results do not surprise me.
8. What type of work do you do? (select all that apply)

84% do online documentation, 66% do paper-based documentation, 45% do training materials, 66% do editing or quality assurance. 29% report supervising other technical communicators. But the answers also include business analysis (12%), indexing (15%), marketing (18%), process mapping (19%), translation (20%) and usability (23%).

#2: Diversified table.
#4: Lots of people work for web contents.
#6: It is surprising the variety of types of work requested to technical writers.

9. What sector do you work in?

The answers include information technology (30%) and engineering (17%) among a large range of sectors.

#2: Sensitivity of the table.
#4: It is strange to have so few people in medicine / health (the pharmaceutical industry is absent).
#6: There is an interesting diversity in working areas. Again, the table was done in a weird way, mostly because some areas are very vague.

10. Which region of the UK do you generally work in?

46% work in the South of England, including London. 13% work outside the UK.

#2: Sensitivity of the categories, table?
#6: Since I am not familiar with the different areas of the UK, I cannot get a feel for this answer.

11. For employees only: What is your annual gross salary?

Based on 165 answers, 36% have a salary between £31k and £40k, but 18% have a salary over £50k. However, 38 respondents skipped the question.

#2: Includes a public manager / depends on concept 5.
#6: There is some variety in salary. A significant percentage of technical writers is very well paid, which is interesting.

12. For contractors/self-employed only: In the last 3 months, what has been your average hourly rate for technical communication work?

Based on 34 answers, 29% have hourly rates between £15 and £30, 41% between £31 and £40, and 29% over 41, including one rate over £60.
13. For employees only: Are you paid for overtime worked?

Based on 166 answers, 18% are paid overtime.

#4: It would be interesting to know whether they do unpaid overtime.

#6: It is positive that almost all technical writers are paid for overwork.

14. For employees only: What additional benefits do you receive, if any? (select all that apply)

Based on 167 answers, the benefits include a pension scheme (83%), flexible hours (53%), private health care (47%), group performance bonus (40%), personal performance bonus (30%), share options scheme (27%), subsidized canteen (26%). Zero respondents receive access to a crèche.

#2: Clarify what “receive” means. Table?

#4: You cannot tell if they do not have the benefit of day care or if they just do not use day care.

#6: There are many benefits for technical writers, but the absence of day care is curious and perhaps negative.

15. For employees only: Have you changed jobs in the past 12 months?

Only 12% of the respondents changed jobs in the last year.

#6: There is a relative stability on the job, which is great.

16. For employees only: Have you had a pay rise in the last 12 months?

Based on 164 answers, 73% of the respondents had a pay raise in 2013. For the record, the UK inflation rate was +2.55% in 2013.

#5: In the UK in 2013, yes.

#6: It is curious that there are so many raises.

17. Where did you hear of this survey?

Respondents heard about the survey through an ISTC email (68%) or newsletter (26%).

#6: Almost only members of ISTC answered the survey, which is a pity.

18. Sex

Most of the respondents are male.

#5: Majority of males, 65%.

#6: It is strange to see so few women. I expected otherwise!
19. Age

The respondents are older rather than young. 21% are below 40, 29% have 40–49 years, 37% have 50–59 years, and 15% over 60.

#5: Few with the age for having children.
#6: It is a pity that so few young people have answered the survey.

20. Are you a member of the ISTC, and if so, what is your membership grade?

20% are fellows, 47% full members, 21% are not members. There is a single student member, and 9% junior members.

#5: A lot are not members.
#6: It is good that 21% of answers are from non-ISTC members.

21. If you are a Member or Fellow of the ISTC, do you use MISTC or FISTC after your name?

A little over half of the respondents (56%) use the title, but 59 people skipped the question.

#5: Half of people want it.
#6: Over half the members want to be MISTC or FISTC.

22. Do you belong to any other technical communication association?

Only 8% of the respondents belong to any other association.

#5: Very closed association.

23. We would welcome any comments you have on this survey.

34 respondents added comments, but we do not have access to those comments.

#2: Answers could be combined.
#6: It is a pity that we do not have access to the comments!
Ana Figueiras

Ana Figueiras is a PhD candidate from the UT Austin I Portugal Digital Media PhD program who is working on Information / Data / Knowledge Visualization and storytelling, more precisely in visual forms of storytelling. Her area of research is somewhere in the intersection of Online Journalism and Information Visualization. She is focused on researching and identifying the best techniques to incorporate narrative elements in a visualizations and which elements provide an effective storytelling on visualizations. She has a BSc degree in Communication Sciences and a MSc in New Media and Web Practices.

She is from Madeira but currently lives in Lisbon. She is also a free software enthusiast and an active member of the Ubuntu community, being an Ubuntu user since 2004 and contributing mostly on translations and on the management of the Portuguese LoCo Team.

About ReThinking Visualization

The ReThinking Visualization project started with the intention to be a resource for anyone interested in information visualization. The project's main goal is to help building a better understanding all the pieces that compose a visualization and to help detecting patterns in visualizations across different areas or disciplines.

ReThinking Visualization consists of a collection of visualizations chosen through an extensive research of what is currently being done on online newspapers and magazines, blogs, scientific visualization, visualization research websites, even advertising campaigns, and more importantly what is popular and shared by Internet users. This collection was created as the ground work of an exhaustive typology that intends to be sufficiently exhaustive to classify all the different examples of visualizations that are being created nowadays. Being able to classify visualizations is important to evaluate the progress of the maturing visualization field, to help focus and direct future research and to help creating better visualizations that make use of the elements that are essential for a visualization to be successful.

These visualizations were analyzed according to their reading/viewing order (Linear or User directed path), narrative elements, visual elements, and interactive elements. Taking all these elements into account and based on past research (Edward Segel and Jeffrey
Heer; Nichani and Rajamanickam; Ian Bogost, Simon Ferrari and Bobby Schweizer), the visualizations were also classified according to a new typology proposed in the paper "A Typology for Data Visualization on the Web". The categories were chosen according to which elements are more prominent and which influence more the interaction that the viewer/user has with the visualization. In other words, it is possible to identify the types of visualizations by identifying what influences the interaction that the user/viewer has with the visualization and by identifying which visual elements are more prominent on the visualization. These genres vary mostly in terms of visual and interactive elements that the genre has and are not mutually exclusive, being possible to combine genres to classify more complex visualizations.

This study also resulted in an Interaction Techniques Taxonomy with 11 categories: filtering, selecting, abstract/elaborate, overview and explore, connect/relate, history, extraction of features, reconfigure, encode, participation/collaboration, and gamification.

**ReThinking Visualization**

**Visualizations Typology**

- **200 visualizations**
  - Narrative elements
  - Annotations of type: annotations, audio/voiceover, Captions, Argument, Timeline, Add-on, and similar
  - Reading/viewing order
  - Visual elements
  - Image, Text, Graphic, Animation, Video, Audio, Icon, and similar
  - Interaction elements
  - Click, Drag, Drop, Hotspots, Link, buttons, Flash, and similar

- **11 types or genres of data visualization**
  - Sequential Graphic
  - Slide Show
  - Chart/Diagram
  - Map
  - Tag Cloud
  - Model
  - Drawing
  - Video/Animation
  - Photograph
  - Poster
  - Game

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**What is ReThinkingvis.com**

- ReThinking Visualization intends to be a resource for anyone interested in information visualization. The project’s main goal is to help building a better understanding of all the pieces that compose a visualization and to help detecting patterns in visualizations across different areas or disciplines. It is part of my research as a PhD student at Universidade Nova de Lisboa, in visual forms of storytelling and how to introduce narrative in visualizations.
- ReThinking Visualization consists of a collection of visualizations chosen through an extensive research of what is currently being done on online newspapers and magazines, blogs, scientific visualization, visualization research websites, even advertising campaigns, and more importantly what is popular and shared by Internet users.
- This collection was created as the ground work of an exhaustive typology that intends to be sufficiently exhaustive to classify all the different examples of visualizations that are being created nowadays. Being able to classify visualizations is important to evaluate the progress of the maturing visualization field, to help focus and direct future research and to help creating better visualizations that make use of the elements that are essential for a visualization to be successful.

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**Technical Writers @ Lisbon — ISCTE, May 23rd, 2015 — The 8th Report — 27 / 39**
Which elements are more prominent and which influence more the interaction that the viewer/user has with the visualization?

Interaction techniques taxonomy

<table>
<thead>
<tr>
<th>Technique</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtering</td>
<td>Only show me the data that I am interested in</td>
</tr>
<tr>
<td>Selecting</td>
<td>Mark or track items I am interested in</td>
</tr>
<tr>
<td>Abstract/Elaborate</td>
<td>Adjust the level of abstraction of the data</td>
</tr>
<tr>
<td>Overview and Explore</td>
<td>Overview first, zoom and filter, then details on demand</td>
</tr>
<tr>
<td>Connect/Relate</td>
<td>Show me how this data is related</td>
</tr>
<tr>
<td>Reconfigure</td>
<td>Give me a different arrangement of the data</td>
</tr>
<tr>
<td>Encode</td>
<td>Give me a different representation of the data</td>
</tr>
<tr>
<td>History</td>
<td>Allows me to rewind steps taken in the exploration of the data</td>
</tr>
<tr>
<td>Extraction of features</td>
<td>Allows me to extract data in which I am interested</td>
</tr>
<tr>
<td>Participation/Calibration</td>
<td>Allows me to contribute to the data</td>
</tr>
<tr>
<td>Gamification</td>
<td>Show me the data in a more playful way</td>
</tr>
</tbody>
</table>

Filtering

Selecting

Overview and Explore

Abstract/Elaborate

Connect/Relate

THE CLUBS THAT CONNECT THE WORLD CUP
"Information exploration is inherently a process with many steps, so keeping the history of actions and allowing users to retrace their steps is important." Shneiderman (1996)

Providing ways for the user to undo and replay his/her actions allows him/her to not only recover from mistakes in the data exploration, but also to progressively refine the exploration. In 1996 Shneiderman pointed this interaction technique as one that is frequently disregarded in information visualization. The history feature is still often forgotten by visualization creators nowadays.

"Narrative is first and foremost a prodigious variety of genres, themselves distributed amongst different substances—oral as well as written. It is presented in myths, legends, fables, tales, novellas, epic, history, tragedy, drama, comedy, mime, painting (think of Carpaccio’s St. Ursula), stained glass windows, cinema, comics, news, stories, conversations. Moreover, under this almost infinite diversity of forms, narrative is present in every age, in every place, in every society; it begins with the very history of mankind. A people without narrative: All classes, all human groups, have their narratives, enjoyment of which is very often shared by men with different, even opposing, cultural backgrounds. Caring nothing for the division between good and bad literature. narrative is international, transhistorical, transcultural: it is simply there, like life itself. Barthes (1977)"
Narratives and New Forms of Storytelling

Beginning  Middle  End
Event sequencing  What it is like
World making/world disruption  Situatedness

The medium shapes the information and the way it is represented. Computation and the internet are part of a New Medium that has given us the possibility to employ characteristics typical from other media, creating multimedia narratives more complex and sophisticated than ever. Interactive storytelling, for instance, is becoming very popular on news casting and documentaries, areas that were up until recently holding on to traditional forms of storytelling.

Narrative Strategies

- Context
- Empathy
- The relation between time and narrative
- Gamification

“What springs to mind when you hear the word “storytelling”? For most of us, it conjures up images of children gathered in front of a rocking chair, with attention as an older narrator a fairy tale. Unconstrained by the inhibitions of older years, they aren’t afraid to interrupt and ask for details, satisfy their curiosity, or clamor for more when the story ends. Ma et al (2012)

A well-told story conveys great quantities of information in relatively few words, in a format that is easy assimilated by the listener or viewer. People usually find it easier to understand information integrated into stories than information spelled out in serial lists such as bulletized items on an overhead slide. Stories are also just more compelling. Gershon and Page (2001)

All stories are sequences of causally related events. However, the good ones tend to share several important features. First, they take time to unfold, and their pacing matches the audience’s ability to follow them. Second, they hold the audience’s attention through interesting settings, plots, and characters. Finally, they leave a lasting impression, either by piquing the audience’s curiosity and making them want to learn more or by conveying a deeper meaning than you can with the mere sequence of causally related events. Ma et al (2012)

To make further progress on narrative visualization we still need to know:

- What makes it work;
- Which visualizations that are being produced in news media, advertising, research, education, etc. are having the desired effect on users;
- How and where should narrative elements be placed;
- How should the story be structured;
- What is the impact of these stories on the users.
Rute Costa

Rute Costa is an Associate Professor at Faculdade de Ciências Sociais e Humanas of Universidade Nova de Lisboa. She is also a researcher at Centro de Linguística of Universidade Nova de Lisboa. She has been an invited teacher at Luxembourg University and Universidade Agostinho Neto in Angola.

Her research interests include terminology, lexicography, lexicology, anthologies, specialty translation, and automatic language treatment.

About CLUNL

Centro de Linguística da Universidade Nova de Lisboa (CLUNL) is a research unit that has as its main objectives the advancement of research in Theoretical and Applied Linguistics, the advanced training of researchers and the promotion of the publication of scientific data in those domains concerned with the nature and structure of languages and texts.

This unit is financed by FCT.

The Centro de Linguística da Universidade Nova de Lisboa (CLUNL) was founded in 2000, in the sequence of a restructuring of the Centro de Estudos Comparados de Línguas e Literaturas Modernas (CEC).

On the importance of terminology

(Rute Costa has not made the slides of her presentation available for this report.)
Public notes

All participants received a questionary with the following questions:

- Ideas, doubts, comments, reflections?
- What did you like the most?
- How could we improve? What could we do differently?

The participants were promised that their answers would be published in a final public report.

The following pages have the notes returned by 21 participants, transcribed or translated to English.

The anonymous notes correspond to participants that did not check the “publish?” box.

Laura Barros

Comments?

- There were good interventions and interactions between the audience and the speaker (Joaquim Baptista). The presentation brought dynamism and raised questions familiar and in the interest of the audience.

- Presentation of Ana Figueiras: Showed examples for the visualization techniques. It brought innovative and interesting information and showed the possible original tools to get some information. (Few professionals in Portugal, few academic investment). There were many interactions and exchange of ideas with the audience.

- Rute Costa: For me the presentation treated serious and very institutionalized matters and was very expositive. There was lots of information given by the speaker about realities in an international context.

Like?

- Presentation of J. Baptista: The idea of seeing another reality of a similar association in the UK is interesting and conveys the same worries, facts and needs on the side of the audience.

- Presentation of Ana Figueiras: I liked the most the originality of the techniques (for me).
Improve?

- J. Baptista: I arrived late so unfortunately I could only attend to a part of the presentation but I found it very interesting anyway.

- Presentation of Ana Figueiras: Some slides and images could be better explained and zoomed to understand more the techniques.

- Rute Costa: See better the slides (too small letters). Create more interaction with the audience.

Daniel Bofill

Email? dbofill@siscog.pt

Comments? The session by Rosário gave me many ideas to structure learning in general. When applied to my professional reality, not everything can be used because of the constraints of the professional world, also known as “business as usual”. However, the structure, the form of communication, the integration of trainees and the creation of a free space for gaining knowledge were the main ideas that I retained from the presentation.

Rosário managed to compact the maximum amount of information into the available time without creating a sensation of “information overload”. She is an excellent communicator that encourages the cheerful participation of everyone present.

Like? The interactive and participative structure of the session. Learning by doing the tasks was much more productive than just attending to theories in a slide.

Improve? Time management. I am not sure whether there was too much material for the available time, or if Rosário allowed extra time to do the exercises. Anyway, the conclusion of the session was somewhat hasty.

Anonymous #2

Comments? Potential for development in professional environment learning activities.

Visual communication: description to understand, understand to decide.

Communication: people to people.

Like? Practicing active learning.


Anonymous #3

Comments? I had some difficulties with the time to translate the texts. You could simplify and translate the texts.

Like? The training and teaching techniques presented here.
Anonymous #4

Like? The interactive model, centered in the student.

Improve? More time for the activities.

Anonymous #5

Comments? For Rosário Durão, the limitation “time” calls into question the assimilation of the information and the eventually interesting analysis of the results.

Very interesting, many new things.

Like? Everyone very nice, a welcoming environment.

Improve? Better time management, (?)

Anonymous #6

Comments?

Very interesting and dynamic, for me it was a good introduction to the theme. It leaves me wanting for more…

and it illustrates nicely how we lack the ability to work this way… we felt some lack of structure… and the missing ability to manage time in the groups.

We need more! 😊

Like? Giving the students the knife and the cheese.

Improve? Hmm…put playful stopwatches in each group? … take out the tables! …

Anonymous #7

Comments? Rosário Durão. I enjoyed very much the dynamic way used to lead the activities. Rosário practiced and gave examples of “active learning” at New Mexico Tech.

I liked the interaction among people with different backgrounds.

Very interesting.

Like? The dynamic part.

Improve? 😊 time.😊

Anonymous #8

Comments?

Very engaging presentation that demonstrates the practice that we wish to achieve.
The format can be applied to multiple situations outside the academic world.

**Like?** The interaction between people with different experiences in the small group constructions.

**Anonymous #9**

**Comment?** It would be interesting to create a free-membership (or low-cost) association based on “ISTC” in Portugal so that people with different skills and know-how could exchange experiences. This could help a lot to find another job or to improve soft skills as well as serving as networking event.

**Anonymous #10**

**Comments?** As a student at ISCTE, I am sorry that in my classes the students are not being stimulated to learn in an active way. Instead, we have to deal with very ineffective classes. I hope that active learning becomes the norm in the school of the future.

**Like?** I quite enjoyed all the presentations! I especially liked the morning, because I discovered a new (and interesting) method of learning. In general, I feel that I came out of this meeting more enlightened about several matters.

**Improve?** You should encourage punctuality!
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:

• OSDOC 2010 — Workshop Open Source and Design of Communication (eurosigdoc.acm.org/osdoc2010);
• OSDOC 2011 — Workshop Open Source and Design of Communication (eurosigdoc.acm.org/osdoc2011);
• OSDOC 2012 — Workshop Open Source and Design of Communication (eurosigdoc.acm.org/osdoc2012);
• OSDOC 2013 — Workshop Open Source and Design of Communication (eurosigdoc.acm.org/osdoc2013);
• ISDOC 2012 — Workshop Information Systems and Design of Communication (eurosigdoc.acm.org/isdoc2012);
• ISDOC 2013 — International Conference on Information Systems and Design of Communication (eurosigdoc.acm.org/isdoc2013)
• ISDOC 2014 — International Conference on Information Systems and Design of Communication (eurosigdoc.acm.org/isdoc2014)

Several seminars were sponsored by EuroSIGDOC (eurosigdoc.acm.org/seminars.html), and now the TWL (Technical Writers @ Lisbon).

— 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 informação e 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.


O Pré-colóquio permitiu debater acerca da estreita relação entre a Comunicação Técnica, a Terminologia, a Tradução e a Engenharia Informática, que inegavelmente contribui 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 proífico 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 ISTAR

ISTAR-IUL, the Information Sciences, Technologies and Architecture Research Center is a new research unit of ISCTE-IUL, gathering researchers coming from other units, both at ISCTE-IUL such as Adetti-IUL, BRU, CIES and DINAMIA, and from other public universities in the Lisbon area, such as LaSIGE (FC/UL) and CITI (FCT/UNL).

ISTAR has the following research groups:

**Digital Living Spaces.**

We address the design of environments for human use and exploration, in personal computing platforms, virtual and augmented reality, including architectural spaces supported by digital tools in their early design, conceptualization and fabrication phases.

**Information Systems.**

We focus on the design, implementation and evaluation of information systems in an organizational context, addressing features like executive IS, decision support systems, relations between organizational IS and social collaborative networks, or niche IS's like healthcare IS.

**Software Systems Engineering.**

We address the lifecycle of large and complex software systems. We focus on the specification, provided services, architecture, design, implementation, quality assurance, operation and evolution, as well as on the associated processes, methods and tools.

**Complexity and Computational Modelling.**

We look at, explain and analyze human and social systems as complex systems and also as systems that are susceptible to computational modeling through mathematical tools.