PRESENTATION TECHNIQUES

Methodology for Research in Networking

M2 — Networking

Sorbonne Université

2021-2022

WHY THIS CLASS?

- Presentation is a major step of your work
- What are the other two?
  - 1: The work itself
  - 2: Convincing the "evaluator"
- Possible "publicity" of your work
  - Get feedback before submission / final release

GENERAL RECOMMENDATIONS

TYPES OF PRESENTATIONS

- Support type
  - Oral presentation
  - Poster presentation
  - None…
- Presence type
  - In front of public
  - Through a video conferencing system

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- Support type
  - ✓ Oral presentation
  - ✓ Poster presentation
  - ✓ None…
- Presence type
  - ✓ In front of public
  - ✓ **Through a video conferencing system**

WHAT IS YOUR TARGET AUDIENCE?

WHO IS INTERESTED IN YOUR WORK?

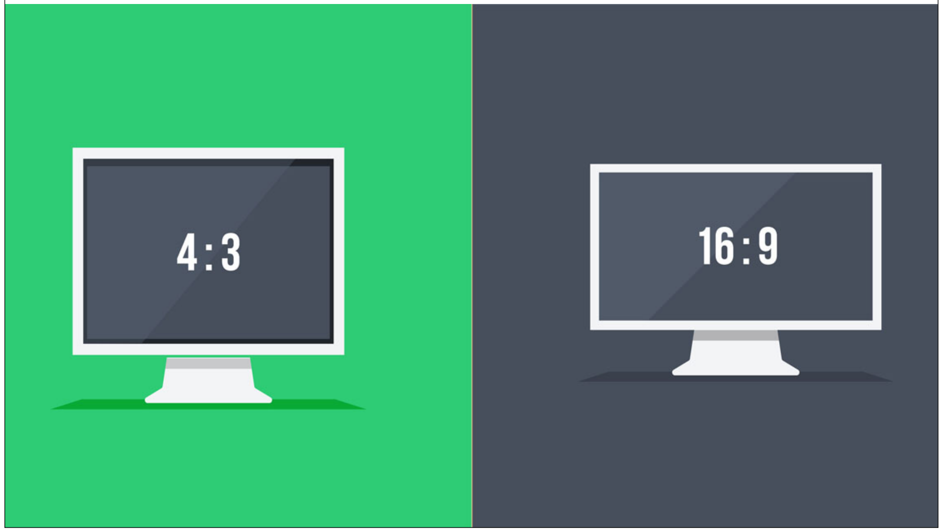
- At best, a few people in the audience
  - ✓ Even when it should be for their own interest (e.g., classroom)
- Who has the required background?
  - ✓ You have…

GIVE A GOOD IMPRESSION

- You should master your subject
  - ✓ If you don't, people will notice
  - ✓ Although it is not always possible…
- Prepare your material before
  - ✓ Start your computer beforehand
  - ✓ Battery charge
  - ✓ Adaptors

IF POSSIBLE, CHECK ROOM BEFORE…

SIZE OF PROJECTION



VIDEOS…

- Eye contact 1
- Eye contact 2

BUT…

- The previous guys are specialists
- What about us?
- At least
  - ✓ Avoid staring at the slides
  - ✓ Try to move a bit (when possible)
  - ✓ And the following list…


Share
10
POWERFUL BODY
LANGUAGE TIPS
for your next presentation
1.
2.
3.
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Share
1
TO BOOST YOUR CONFIDENCE
DURING YOUR PRESENTATION,
Get in touch
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Share
1
TO BOOST YOUR CONFIDENCE
DURING YOUR PRESENTATION,
OPEN YOUR
CHEST AND ARMS
AND KEEP YOUR
BACK STRAIGHT.
THIS POSITION WILL MAKE YOU
BREATHE BETTER AND YOU'LL
FELL MORE RELAXED.
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Share
TO MAKE
YOUR AUDIENCE
COMFORTABLE,
2
Get in touch
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Share
TO MAKE
YOUR AUDIENCE
COMFORTABLE,
SIMPLY
SMILE
AT THEM.
SMILING IS OUR MOST
POWERFUL WEAPON.
2
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Share
3
TO ENGAGE PEOPLE,
Get in touch
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Share
3
TO ENGAGE PEOPLE, GESTURE WITH YOUR
ARMS AND HANDS
IN A NATURAL WAY,
AND LOOK YOUR AUDIENCE
IN THE EYE.
PEOPLE TEND NATURALLY TO
PAY ATTENTION
AND TO LIKE PEOPLE WHO
LOOK THEM IN THE EYE.
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Share
TO DEMONSTRATE
AUTHORITY,
4
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STATE OF THE ART PRESENTATIONS
Share
TO DEMONSTRATE
AUTHORITY,
KEEP CALM
AND USE SMALL AND STIFF GESTURES.
THIS WAY PEOPLE WILL
TRUST YOU
AND VIEW YOU AS
A CONFIDENT PERSON.
4
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Soap
STATE OF THE ART PRESENTATIONS
Share
5
TO BRING MOVEMENT TO YOUR SPEECH,
Get in touch
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Soap
STATE OF THE ART PRESENTATIONS
Share
5
TO BRING MOVEMENT TO YOUR SPEECH,
USE THE PHYSICAL SPACE YOU HAVE AVAILABLE AND
WALK IT.
FOR EXAMPLE, IF YOU'RE PRESENTING THREE POINTS,
TALK ABOUT POINT A WHEN YOU'RE AT YOUR FIRST POSITION;
THEN MOVE OUT 2 OR 3 STEPS AND TALK ABOUT POINT B;
THIS WAY, A MOVEMENT THAT INCLUDES SPACE WILL ACCOMPANY
YOUR SPEECH.
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STATE OF THE ART PRESENTATIONS
Share
TO KEEP YOUR AUDIENCE'S ATTENTION,
6
Get in touch
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Share
TO KEEP YOUR AUDIENCE'S ATTENTION,
VARY YOUR GESTURES
THROUGHOUT THE PRESENTATION.
OPEN GESTURES, SMALL GESTURES.
GESTURES THAT INVOLVE YOUR
HEAD, ARMS AND HANDS,
GESTURES THAT INVOLVE ONLY YOUR HANDS,
OR ONLY YOUR HEAD, BROAD GESTURES....
6
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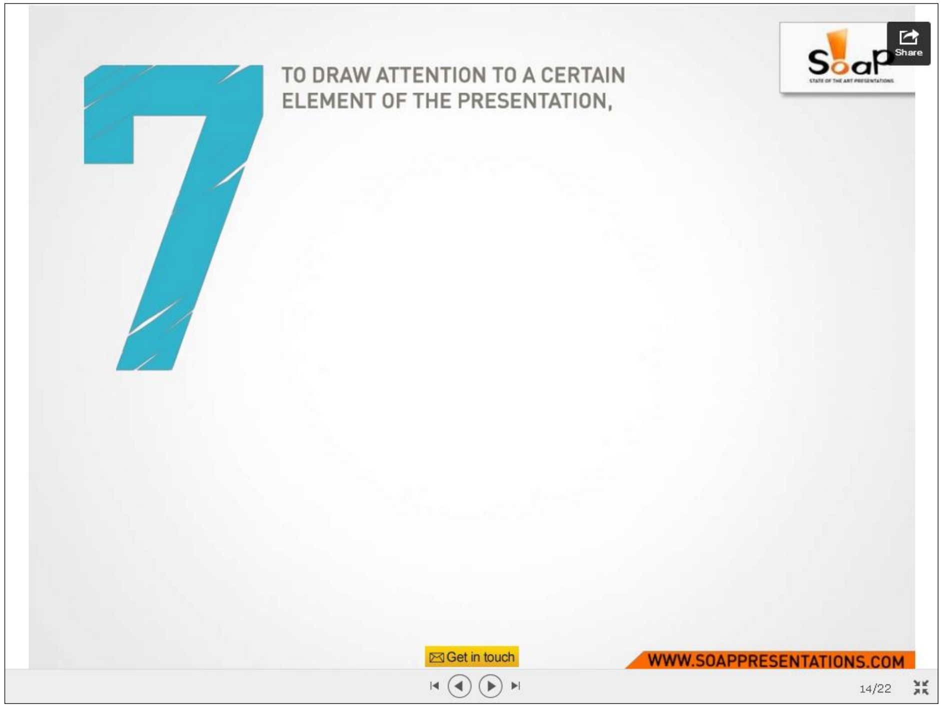
Share
7
TO DRAW ATTENTION TO A CERTAIN
ELEMENT OF THE PRESENTATION,
Get in touch
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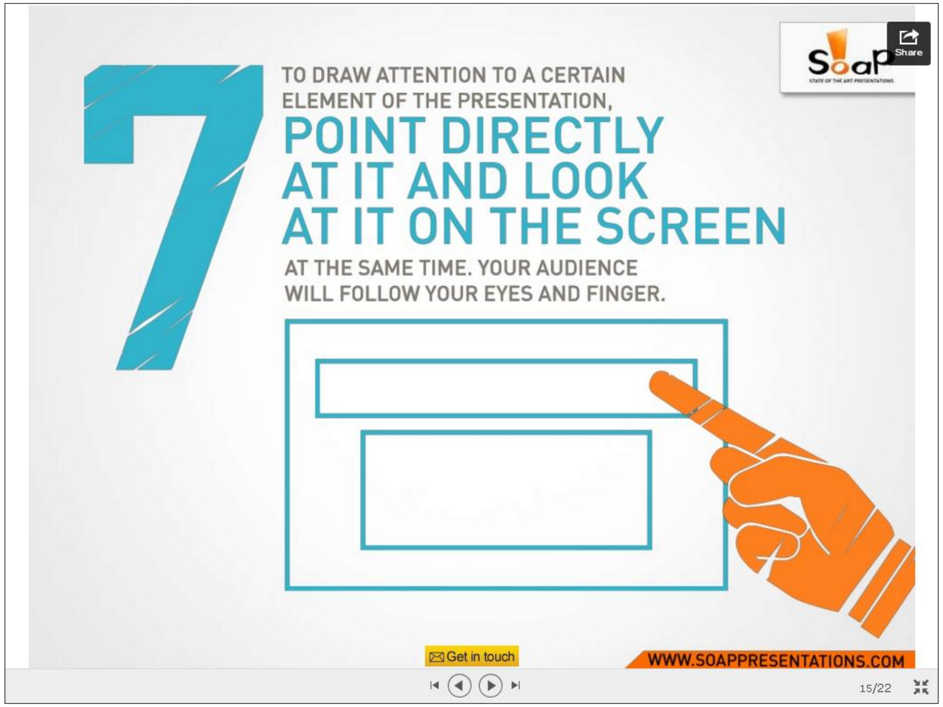
Share
7
TO DRAW ATTENTION TO A CERTAIN
ELEMENT OF THE PRESENTATION,
POINT DIRECTLY
AT IT AND LOOK
AT IT ON THE SCREEN
AT THE SAME TIME. YOUR AUDIENCE
WILL FOLLOW YOUR EYES AND FINGER.
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Share
TO ENCOURAGE AUDIENCE PARTICIPATION,
8
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Share
TO ENCOURAGE AUDIENCE PARTICIPATION,
USE OPEN GESTURES
AND IF POSSIBLE
WALK AROUND AND
TOWARD PEOPLE.
WE TEND TO PARTICIPATE MORE WHEN
WE HAVE PROXIMITY TO A SPEAKER.
8
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Share
9
TO MAKE A HARD QUESTION SEEM EASIER,
Get in touch
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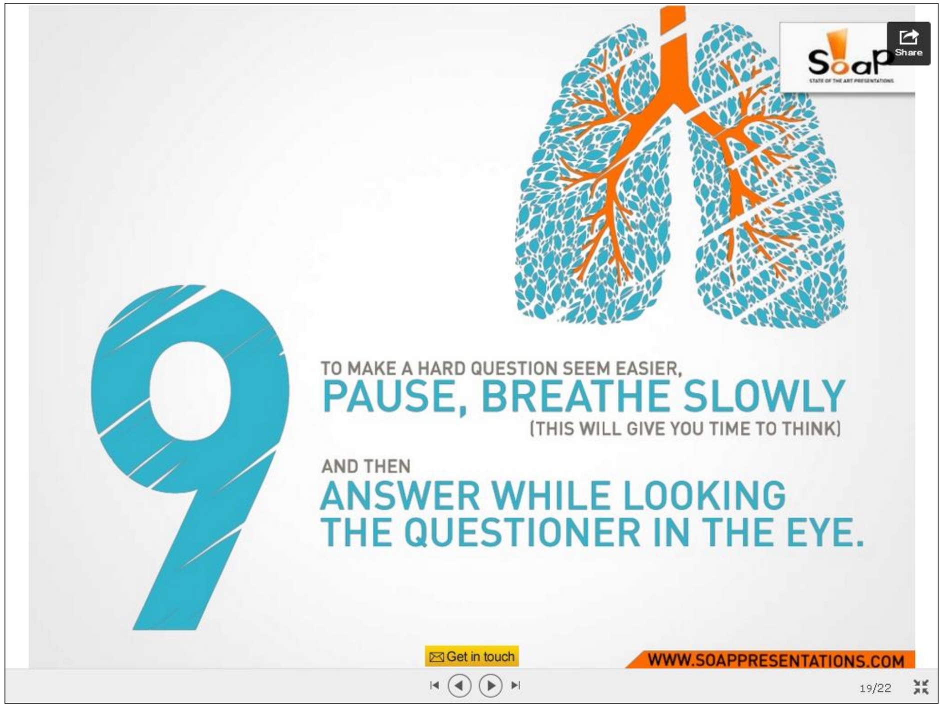
Share
9
TO MAKE A HARD QUESTION SEEM EASIER,
PAUSE, BREATHE SLOWLY
(THIS WILL GIVE YOU TIME TO THINK)
AND THEN
ANSWER WHILE LOOKING
THE QUESTIONER IN THE EYE.
Get in touch
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Share
10
TO MAKE YOUR
AUDIENCE BUY
YOUR STORY,
Get in touch
WWW.SOAPPRESENTATIONS.COM
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EXERCISE 1

YOUR PROJECT

- Prepare a speech for your project
  - ✓ Between 1’00’’ and 1’30’’
- Present
  - ✓ Get feedbacks from 2 colleagues
- Write it down in the paper
  - ✓ Comments for your colleagues (indicate names)
  - ✓ Comments for all

	Presenter	Reviewer 1	Reviewer 2
1	CAO	BOULTACHE	BOUHDDOU
2	TAYEB CHERIF	SUN	SEDKI
3	AZOUAOU	AZEM	TAYEB CHERIF
4	AZEM	TAYEB CHERIF	SUN
5	DIDOUCHE	CHIRLIAS	CAO
6	DIEP	DIDOUCHE	CHIRLIAS
7	BOULTACHE	BOUHDDOU	BENLADGHEM
8	BAHLALI	AZOUAOU	AZEM
9	HOURI	HAMMAMI	HAMED KHODJA
10	HAMMAMI	HAMED KHODJA	GALVAN
11	BOUHDDOU	BENLADGHEM	BELLOUCH
12	CHIRLIAS	CAO	BOULTACHE
13	PETROSSI	KHEDRAOUI IDRISSI	HOURI
14	HAMED KHODJA	GALVAN	DIEP
15	BENLADGHEM	BELLOUCH	BAHLALI
16	SUN	SEDKI	PETROSSI
17	BELLOUCH	BAHLALI	AZOUAOU
18	GALVAN	DIEP	DIDOUCHE
19	SEDKI	PETROSSI	KHEDRAOUI IDRISSI
20	KHEDRAOUI IDRISSI	HOURI	HAMMAMI

PREPARING YOUR PRESENTATION

YOU NEED TIME TO PREPARE

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YOUR AUDIENCE HAS LIMITED CAPACITY

- Concentration decreases with time
  - 1 hour → 1~2 ideas
  - 2 hours → 0.5 idea
- Further information after the talk
  - People really interested show up

VIDEO...

- 10/20/30 rule

TALKS != PAPERS

- In the talk, only the most important points
  - Details are in the paper
- Forget about equations whenever possible

- Look at the following two slides
  - True story…

Theoretical results on the connectivity, dynamics, and performance of routing protocols for wireless ad hoc networks (in the broad sense) are typically obtained either through simulation on mobility models [2] or from considerations on random temporal graphs [3]. The former boast a more realistic physical model while the latter are simpler to manipulate and allow for explicit calculations. Furthermore, asymptotic capacity results may also be obtained from synthetic mobility models [4]. These approaches must be confronted to experimental data from real-life traces where attention has been focused on the inter-contact time distribution. When the underlying social dynamics are strong, this distribution follows a power law [5]. However, in different scenarios, it may follow an exponential law [2]. Interestingly, any mobility model in a bounded domain necessarily has an exponential cutoff [6]. Random graph based approaches, including ours, also have an exponential (or geometric) inter-contact time distribution.

Temporal graphs, time-indexed sequences of traditional static graphs, appear naturally when analyzing connectivity traces in which nodes periodically scan for neighbors. Indeed, the topology of a real-life network of mobile devices evolves over time as links come up and down. Successive snapshots of the evolving connectivity graph yield a *temporal graph*. Their theoretical study is therefore important for understanding the underlying network dynamics. This, however, is a relatively unexplored field. Previous work on dynamic graphs focused on graphs with increasing numbers of vertices or edges [7], but does not account for node mobility and/or link instability.

We consider a network with N nodes. Each of the potential $\frac{N(N-1)}{2}$ links is considered independent and can be in one of two states: either $\uparrow$ or $\downarrow$. Rather than using a fixed probability p of being in the $\uparrow$ state, we model each link by a two-state Markov chain where q_c (resp. q_i) is the probability that the link remains in the $\uparrow$ (resp. $\downarrow$) state. The subscripts c and i stand for *contact* and *inter-contact*, respectively.

Every time step, all links perform one transition of their Markov chain. If $0 < q_i < 1$ and $0 < q_c < 1$, this chain is positive recurrent and aperiodic, and thus ergodic. In the rest of this paper, we will use the following two parameters: $r = \frac{1}{1-q_c}$ and $\lambda = \frac{1-q_c}{1-q_i}$. The contact ($T_c$) and inter-contact ($T_i$) times are distributed geometrically and their expected values are $E(T_c) = r\tau$ and $E(T_i) = \lambda r\tau$. Let $\pi_\uparrow$ (resp. $\pi_\downarrow$) be the stationary probability of being in state $\uparrow$ (resp. $\downarrow$). We have $\pi_\uparrow = \frac{1}{1+\lambda}$ and $\pi_\downarrow = \frac{\lambda}{1+\lambda}$.

Here, r is the average number of time steps that a link spends in the $\uparrow$ state, while λ is the fraction of time that a link spends in the $\downarrow$ state. In a sense, r measures the evolution speed of the network's topology while λ is related to its density. The average link lifetime is by definition $r\tau$ while the average node degree is $\frac{N-1}{1+\lambda}$. Since we are considering discrete time steps, links cannot remain less than 1 time step in a given state. Hence, $r \geq 1$ and $\lambda \geq \frac{1}{r}$.

ATTENTION IS KEY

- Catch the attention of your public
- Figures help a lot
  - ✓ Of course, if well done…
- The first minute is crucial

EXERCICE 2

EXERCISE

- Spot the mistakes (video)…

HOMEWORK

HOMEWORK

- Groups of 2 students
- Pick one paper from ACM HotNets 2020
  - https://conferences.sigcomm.org/hotnets/2020/program.html
- Prepare slides
  - Think of a **5-minute** presentation of the paper
  - Rehearse your presentation
- Rules
  - Put both names on slides
  - Both students upload
  - Upload slides in PDF format

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DEADLINE: OCT. 20, 2021 - 11PM