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Bachelor Class 2016
Introduction to Posters Presentations

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What is expected?

- What: You will present your proposed project as poster
- How: Design, print, hang, present
- Where: room B1, B2, or B3?
- When:
  - 27 January: Introduction to poster presentations
  - 10 February: Draft poster discussion / reviews in small groups
  - bring your poster on (select a proper size: A0)
  - 24 February: Present posters in two rounds

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What will you present

- Your research and preliminary / expected results:
  - Title of the project
  - Research question or problem to be investigated
  - Methodology & work plan
  - Deliverables of the project
  - Duration of the project
  - preliminary / expected results

Poster Structure

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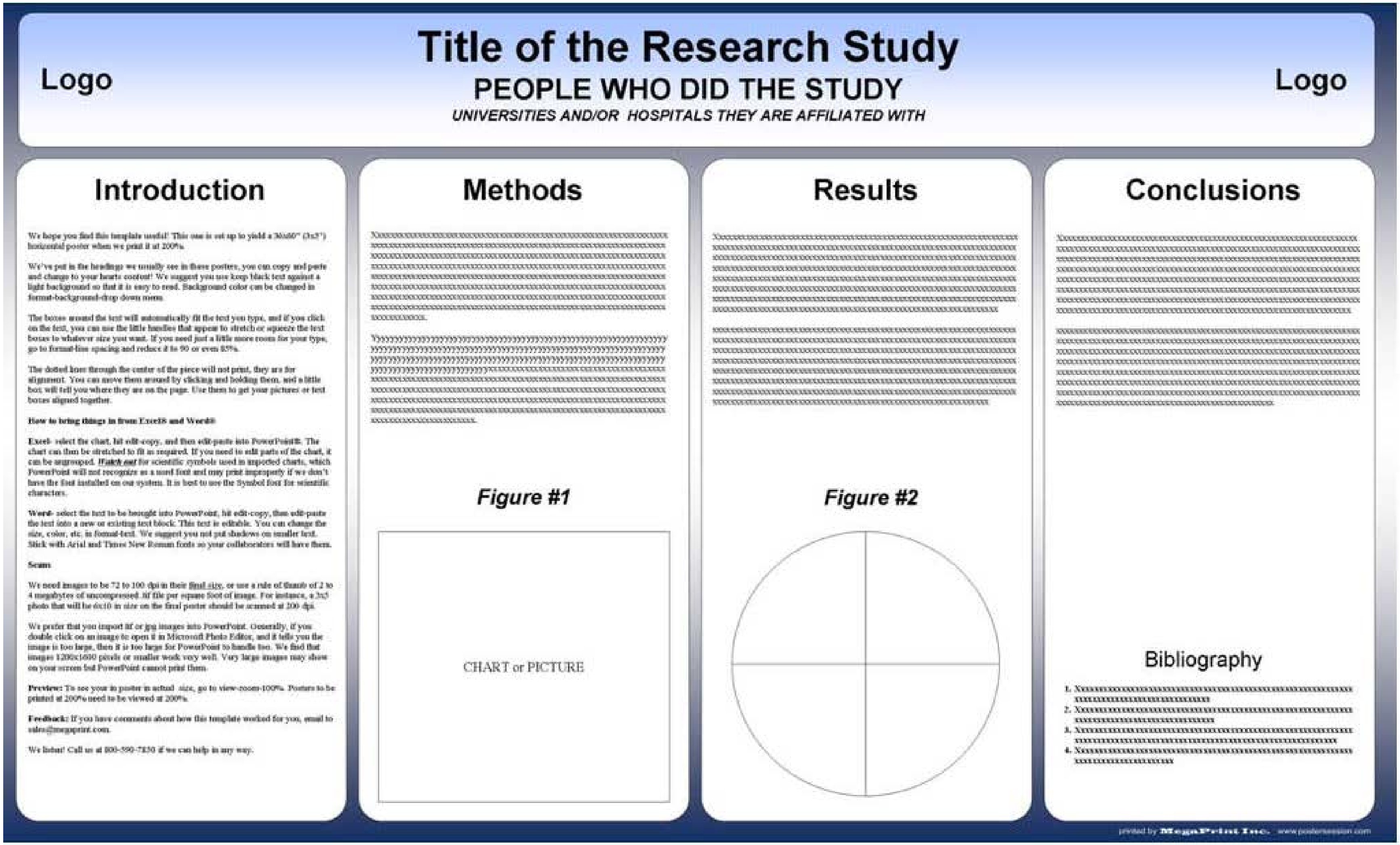

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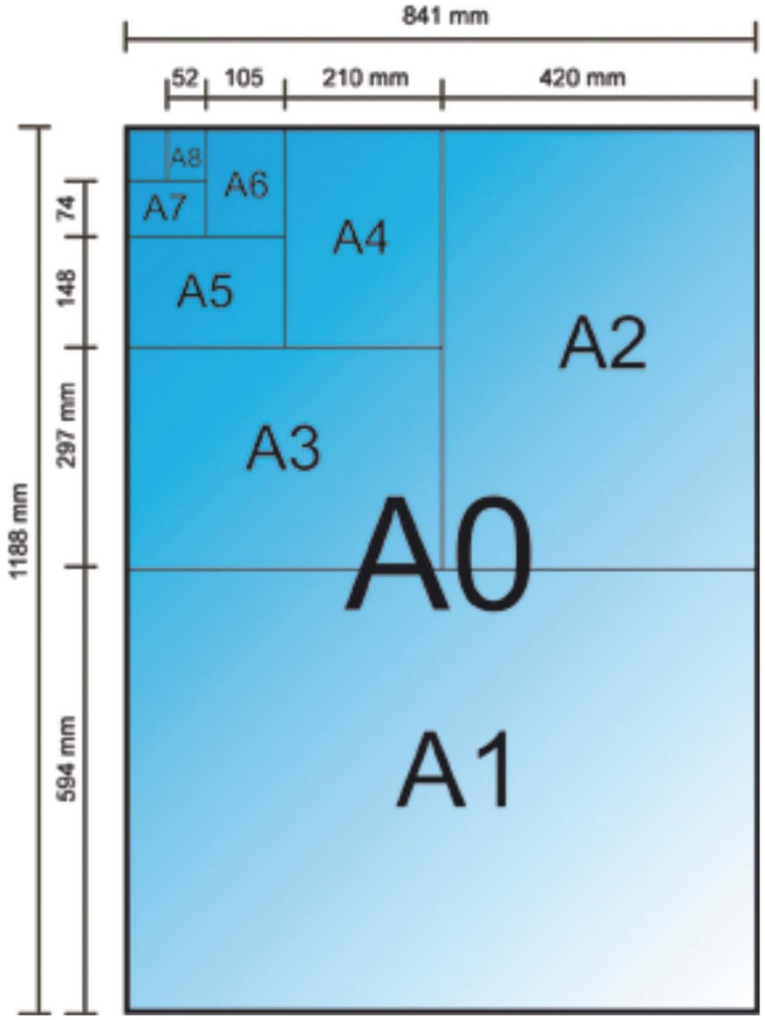
Poster Size



Where to Print?

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Universiteit Leiden ▸ Universitair Facilitair Bedrijf ▸ Kopiëren & Printen ▸ Posters & Belettering

English

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Kopiëren & Printen
Universitair Facilitair Bedrijf

Zoek

Organisatie | Medewerkers UFB | Producten ABC

Contact Sign & Display

Bij Sign & Display bent u aan het juiste adres voor de productie van displays, reclameborden, spandoeken en groot formaat posters, het maken van afbeeldingen op klein of groot formaat voor tentoonstellingen, binnen/buiten bewegwijzering, wetenschappelijke presentaties, onderwijsdoeleinden of pr-activiteiten.

Universitair Facilitair Bedrijf

DIRECT NAAR:

- Copy & Printshop
- Grafische Producties
- Sign & Display
- Drukwerk
- Visitekaartjes
- Kopieerkaarten

Fax, telefoon en e-mail

Bram Simons
Telefoon: 071 - 527 **2609**
Telefax: 071 - 527 3080
E-mail: a.j.simons@ufb.leidenuniv.nl

Bezoekadres

Willem Einthovengebouw
Wassenaarseweg 62a - begane grond
2333 AL Leiden

Postadres

Universiteit Leiden
Sign & Display
Postbus 905
2300 AX LEIDEN

Webmaster UFB

Laatst Gewijzigd: 01-06-2010

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- Printing Options:
  - Price: € 15 – €50
  - Online printing: https://www.24-posters.nl/, which offer A0 printing for 15 euro.
  - Karin Spaans, MultiCopy Leiden http://www.multicopy.nl/Multicopy-Leiden/drukwerk-en-printen/
  - Erik Deul: https://www.strw.leidenuniv.nl/local/posters.php contact: posters@strw.leidenuniv.nl €35 (usually €50)
  - University printer (A4 paper size)

Poster Session Examples

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Poster Session Examples

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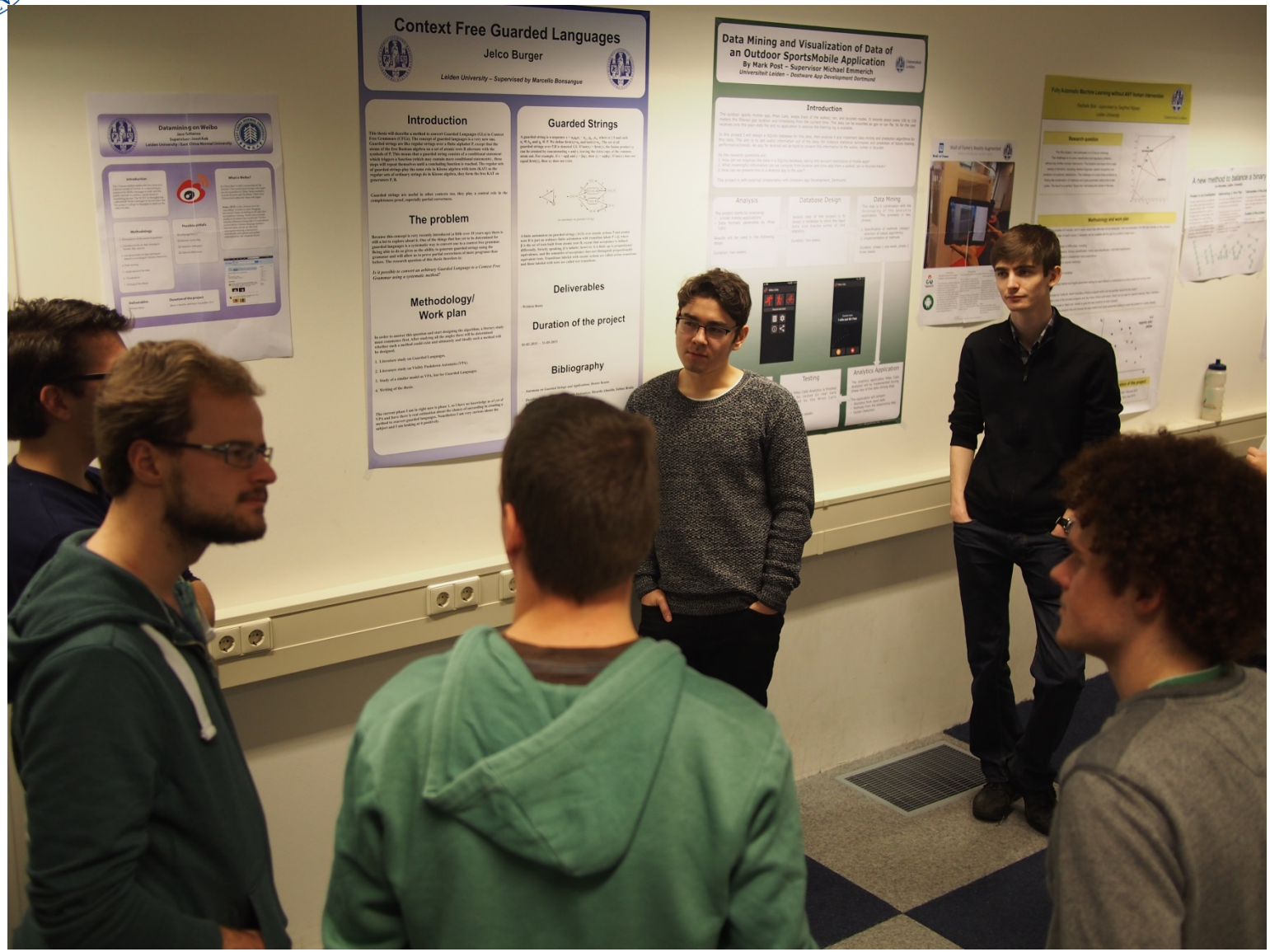

Poster Examples

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Disease subtypes recognition with particular application to Osteo Arthritis classification

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Fabrice Colas, Ingrid Meulenbelt#, Jeanine Houwing##, P. Eline Slagboom#, Joost N. Kok**

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LUMC

Goal: *Develop a systematic approach to recognize disease subtypes with a particular application to Osteo Arthritis (OA) classification.*

❶ Longitudinal data:

422 subjects with OA severity measured on 45 sites of the body according to a 5-points scoring scheme that rates severity in an ascending manner {0,1,2,3,4}.

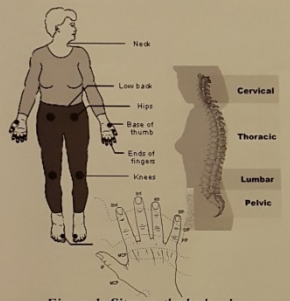

Figure 1: Sites on the body where disease severity is measured.

❷ Methodology:

A- Preprocessing: *Standardization*

B- Clustering Analysis:

A priori stratification of the population given occurrence of OA on one or several sites

Hierarchical techniques are distance based techniques resulting in dendrograms.

Model Based Clustering is a technique

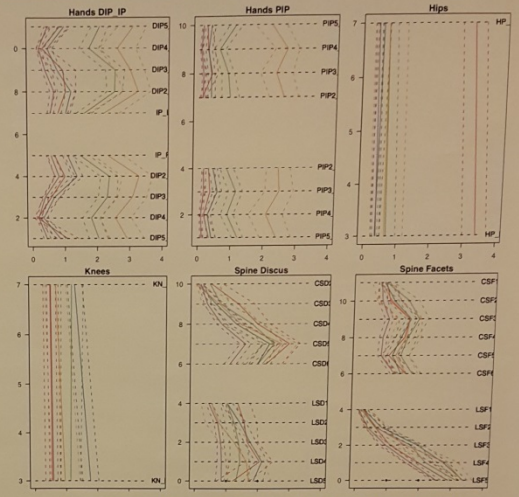

Figure 2: mean OA patterns and their 95% confidence interval.

Model: (VEI,5)	*Affected sites on the body* 1	2	3	4	5	6
5 (48)	■				■	■
3 (122)	■	■			■	■
1 (46)			■			
2 (161)				■	■	■
4 (58)						■

Table: OA patterns in groups of the cluster analysis.

C- Cluster pattern characterization:

Parallel coordinates are used to detail OA patterns in groups resulting of previous cluster analysis.

D- Cluster pattern evaluation:

Bayesian Information Criterion selects the

Bootstrap resampling is used to derive the 95% confidence interval of the discovered patterns.

❸ Experimental results:

Figure 2 illustrates each cluster mean OA pattern (full) and its 95% confidence interval (dot). The table give a summary of the discovered patterns with the best model selected by BIC (VEI, 5).

❹ Concluding remarks:

The task of classifying Osteo Arthritis (OA) by disease subtypes is difficult because of OA clinical heterogeneity. Our approach has the advantage to be

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One-Press Control

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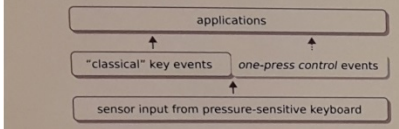
One-press control is a novel tactile input method for keys on a computer keyboard.

It enables the control of multiple different events during a single key depress / release cycle.

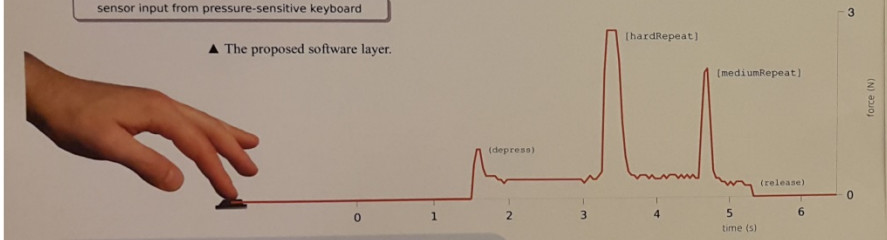
It takes the form of a software layer, placed between regular applications and the raw input from Microsoft's experimental pressure-sensitive keyboard (see below).



▲ The proposed software layer.

Basic functionality

- "Classical" key depress and release events are transparently recreated and passed on.
- However, if a key is depressed and held *softly*, this does *not* lead to a classical key depress event.
- Instead, subsequent and possibly repeated pressing movements on the already held-down key are now detected as discrete events, labeled `[mediumRepeat]` or `[hardRepeat]` according to their intensity (see below).



▲ Force peak extraction after an initial soft depress.

Potential advantages

- *Augment, rather than replace:* one-press control extends keyboard interaction while leaving traditional mechanisms in place.
- *For users*: new-type key events largely rely on a skill already present (pressing a key). This as opposed to requiring, say, steady force levels for input.
- *For users:* while more control becomes directly accessible, "bailing out" of any new-type interactions can be made as easy and intuitive as a timely key release.
- *For developers:* thanks to virtual modifier keys, new-type key events can be plugged right into existing applications. For example:
  `[hardRepeat][del]` = `[shift][del]` "permanently delete file"
  `[hardRepeat][a]` = `[shift][a]` "type *A* instead of *a*"
- *Simplify interaction:* reduce the dependence on modifier keys, by replacing awkward key combinations with single key presses.
  `[alt][F4]` → `[hardRepeat][F4]` "close program window"
  `[alt][tab]` → `[mediumRepeat][tab]` "switch to next window"

Virtual modifier keys

After detection, the label assigned to an input force peak is passed on to applications by attaching it to the source key in question as a *virtual modifier key*.

For example, in addition to a classical event like `[alt] [F1]`, an application may now also see and respond to a `[mediumRepeat]` or `[hardRepeat] [F1]`.

Exploratory interaction

Often when interacting with a UI, we may find ourselves not knowing what to do next, exactly.

This could be something as simple as: "Where is that key on my keyboard again?" Or it could be something as relatively high-level as: "Which terms for this web search will get me to the relevant results?"

Trying our luck, we may end up pressing the wrong key or entering the wrong search terms. We then have to stop, undo our mistake, and start over again. This interrupts the main flow of interaction.

One way to address this issue is to design *exploratory interactions*, to replace what are de facto *trial-and-error interactions*.

WYTIWYG

Analogous to the well-known "What You See Is What You Get" (WYSIWYG) paradigm, WYTIWYG uses tactile force input to preview the results of a possible interaction in a way closely matching the actual results.

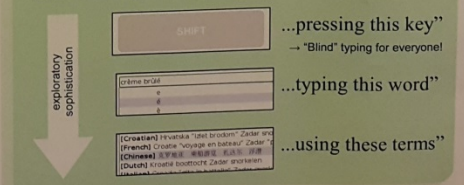
Here, this is done using one-press control. In a basic scenario:

- The user first *softly* presses down and holds a key. This tentative touch activates a selection overview containing currently relevant interaction options.
- Repeated presses on the (still held-down) key go through these options. Dwelling on an option activates a preview.
- At any point, the user may either "bail out" by simply releasing the key in question, or commit to the current option by a firm final press.

Example scenario: Google Suggest controlled using the `[space]` key.

...all in one keypress.

More examples: "I could be...



Combinatorial delete ◂ gives more power to `[backspace]` in web search scenarios.

Legend: Text panel hovering height indicates subject matter's relative abstraction level.

This visit has been sponsored by Leiden University Fund (LUF) / Slingelands.

CHI 2010, 10-15 April 2010, Atlanta, Georgia, USA.

A Tactile Input Method for Pressure-Sensitive Computer Keyboards

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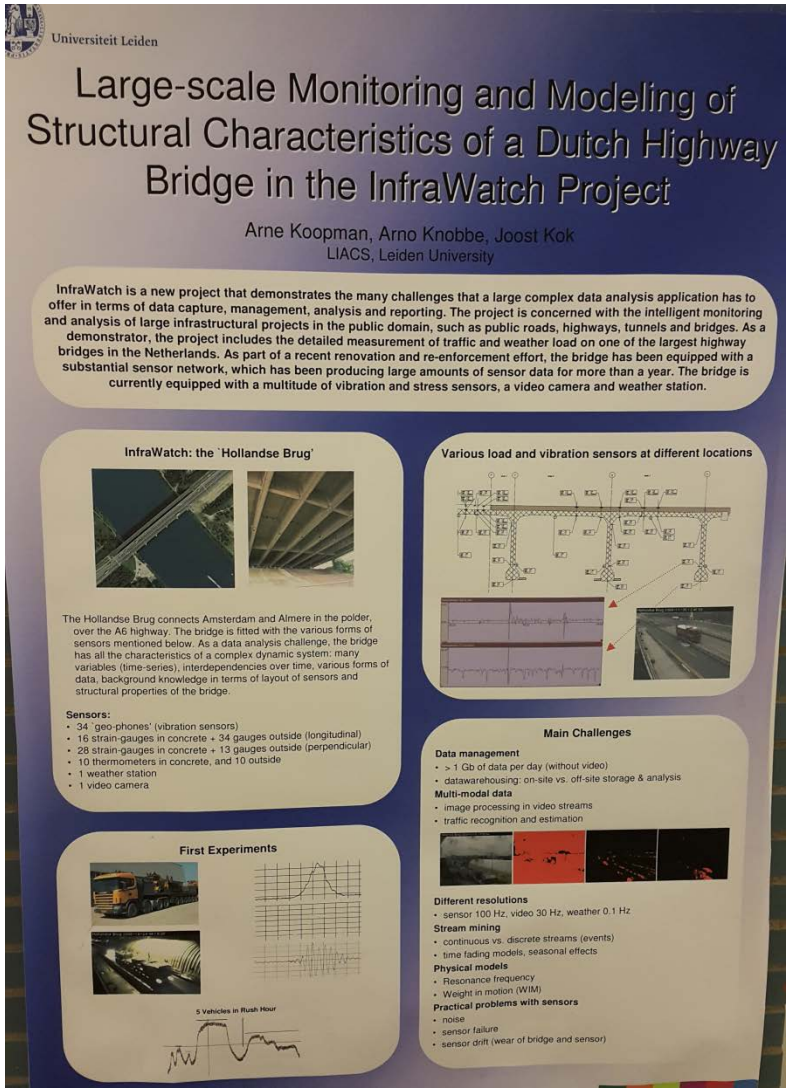
Poster Examples



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Large-scale Monitoring and Modeling of Structural Characteristics of a Dutch Highway Bridge in the InfraWatch Project

Arne Koopman, Arno Knobbe, Joost Kok
LIACS, Leiden University

InfraWatch is a new project that demonstrates the many challenges that a large complex data analysis application has to offer in terms of data capture, management, analysis and reporting. The project is concerned with the intelligent monitoring and analysis of large infrastructural projects in the public domain, such as public roads, highways, tunnels and bridges. As a demonstrator, the project includes the detailed measurement of traffic and weather load on one of the largest highway bridges in the Netherlands. As part of a recent renovation and re-enforcement effort, the bridge has been equipped with a substantial sensor network, which has been producing large amounts of sensor data for more than a year. The bridge is currently equipped with a multitude of vibration and stress sensors, a video camera and weather station.

InfraWatch: the `Hollandse Brug'

The Hollandse Brug connects Amsterdam and Almere in the polder, over the A6 highway. The bridge is fitted with the various forms of sensors mentioned below. As a data analysis challenge, the bridge has all the characteristics of a complex dynamic system: many variables (time-series), interdependencies over time, various forms of data, background knowledge in terms of layout of sensors and structural properties of the bridge.

Sensors:
- 34 `geo-phones' (vibration sensors)
- 16 strain-gauges in concrete + 34 gauges outside (longitudinal)
- 28 strain-gauges in concrete + 13 gauges outside (perpendicular)
- 10 thermometers in concrete, and 10 outside
- 1 weather station
- 1 video camera

Various load and vibration sensors at different locations

First Experiments

5 Vehicles in Rush Hour

Main Challenges

Data management
- > 1 Gb of data per day (without video)
- datawarehousing: on-site vs. off-site storage & analysis

Multi-modal data
- image processing in video streams
- traffic recognition and estimation

Different resolutions
- sensor 100 Hz, video 30 Hz, weather 0.1 Hz

Stream mining
- continuous vs. discrete streams (events)
- time fading models, seasonal effects

Physical models
- Resonance frequency
- Weight in motion (WIM)

Practical problems with sensors
- noise
- sensor failure
- sensor drift (wear of bridge and sensor)

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General Guidelines

- Know your audience
- Use pictures: a picture is better than 1000 words
- Carefully select colors, text size and type.
- Be concise
- Use a poster template (see resources)

Resources on Posters

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- How to Create a Research Poster (NYU):
  - http://guides.nyu.edu/posters
  - Poster Templates: http://www.postersession.com/poster-templates.php
- Some Resources
  - Creating Effective Poster Presentations Introduction videos: http://www.ncsu.edu/project/posters/Videos.html
  - Do's and dont's of good poster design: https://www.youtube.com/watch?v=agtgnJP3KoQ
- How to Give a Poster Presentation: http://www.lel.ed.ac.uk/~mdowman/mike_dowman_how_to_give_a_poster_presentation.html

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Questions