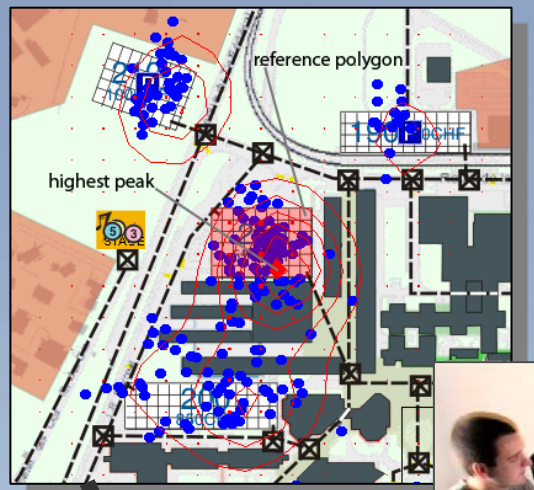
CRAFT : I&C : EPFL

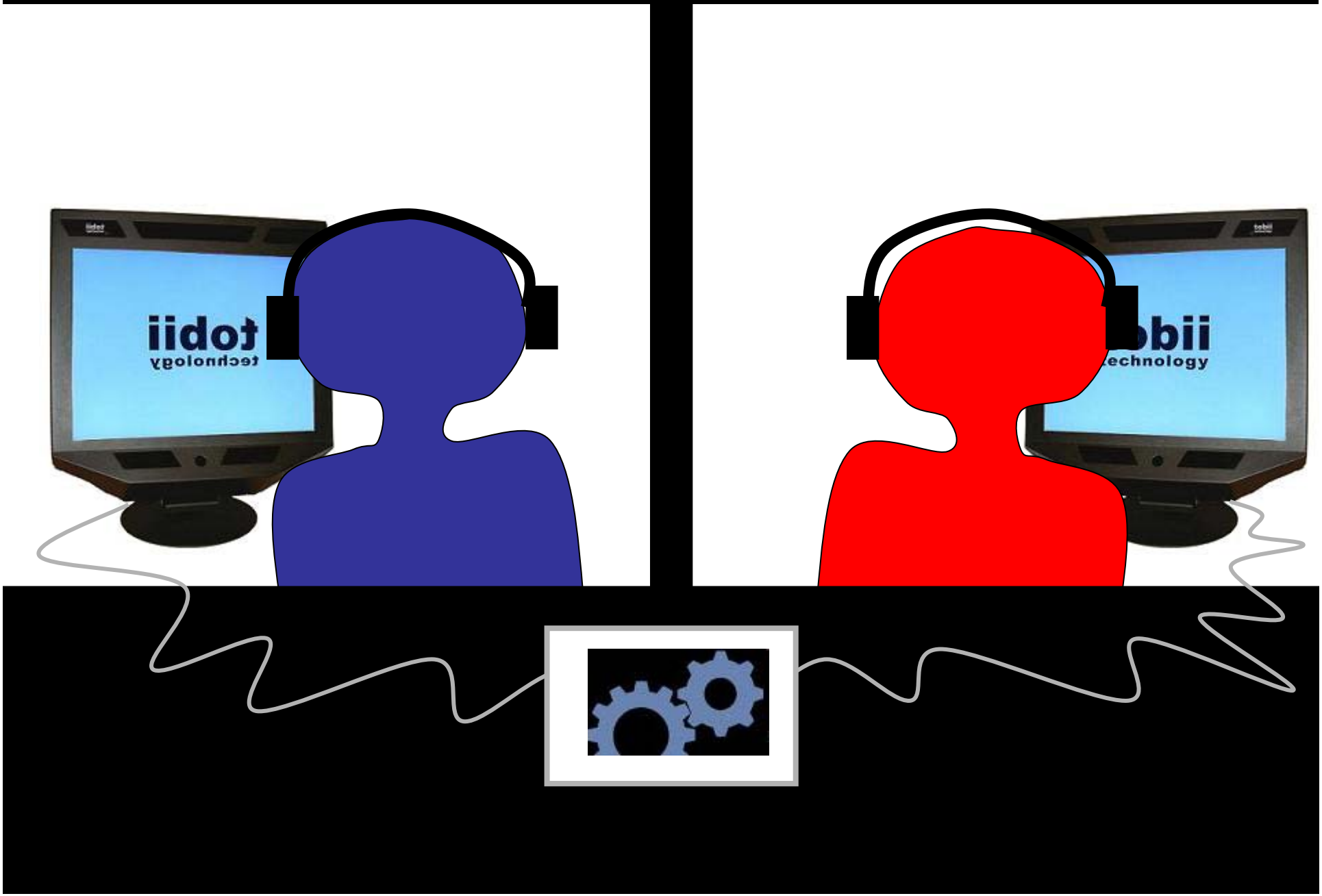
Social signal



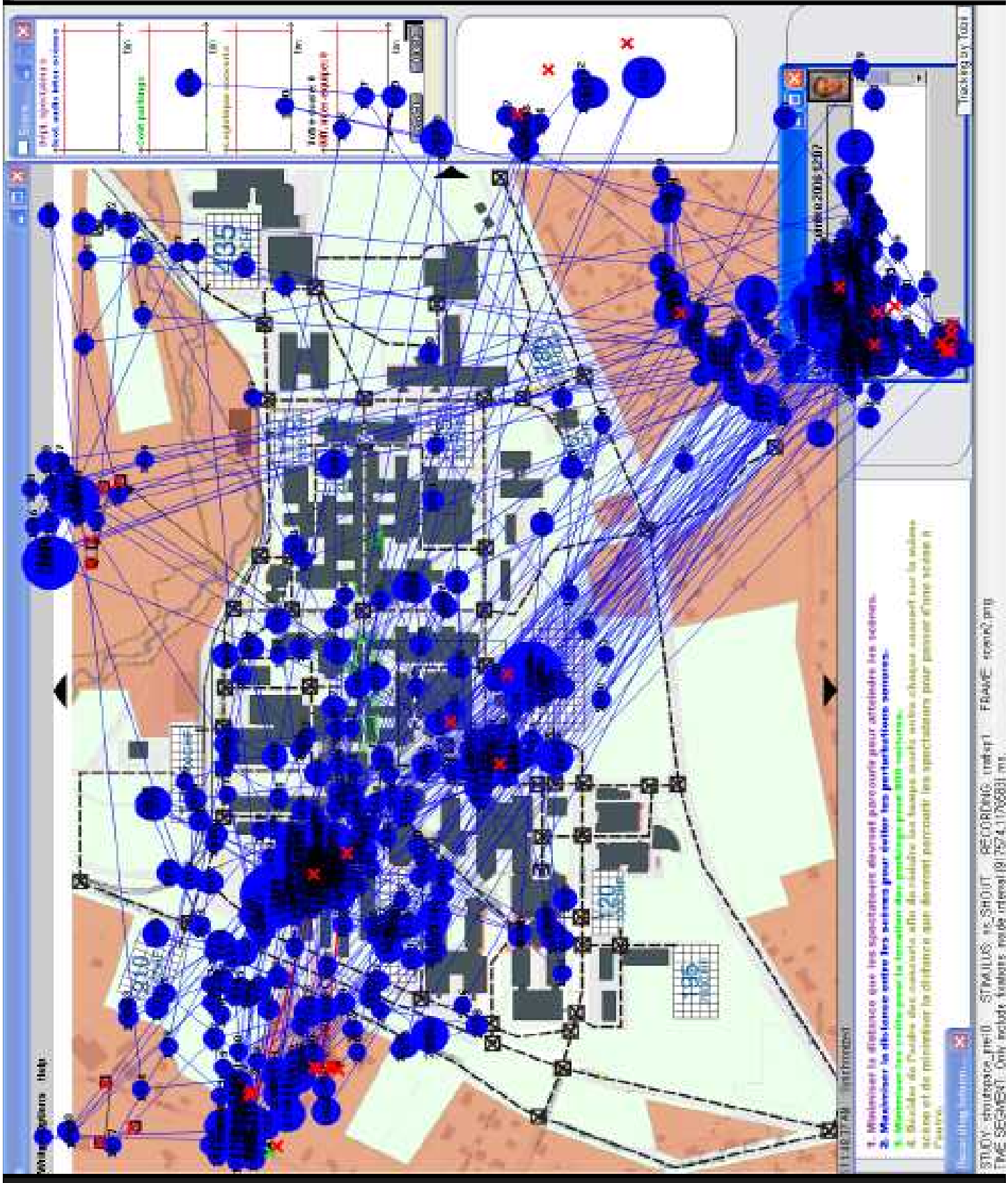
Augmented Social Interactions

Rolex Learning Center (EPFL), Architects: SAANA

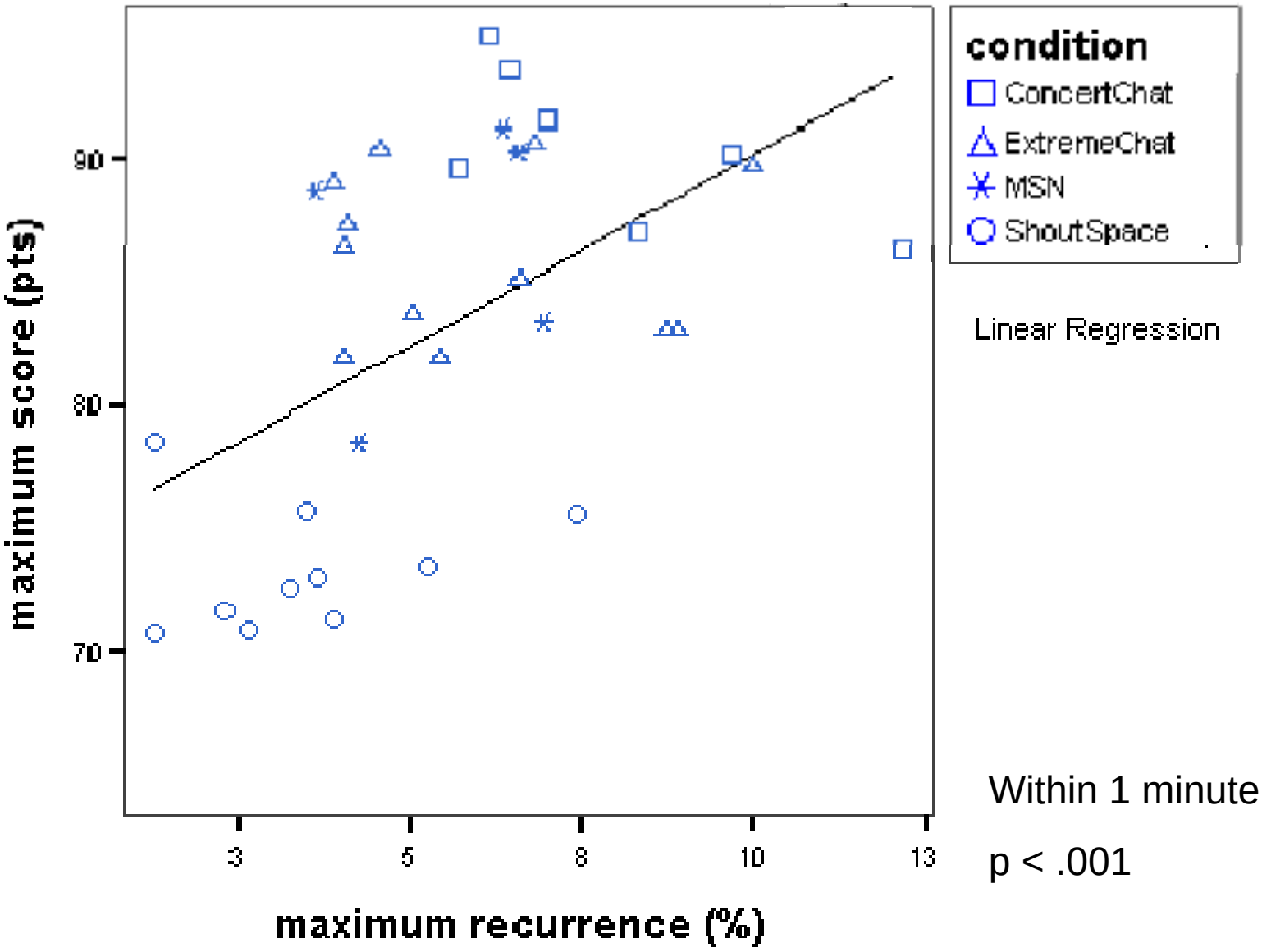
Dual Eye Tracking



Problem solving task, 2 X 2 X 20 pairs, 1 hour, lab



Gaze recurrence predicts team performance

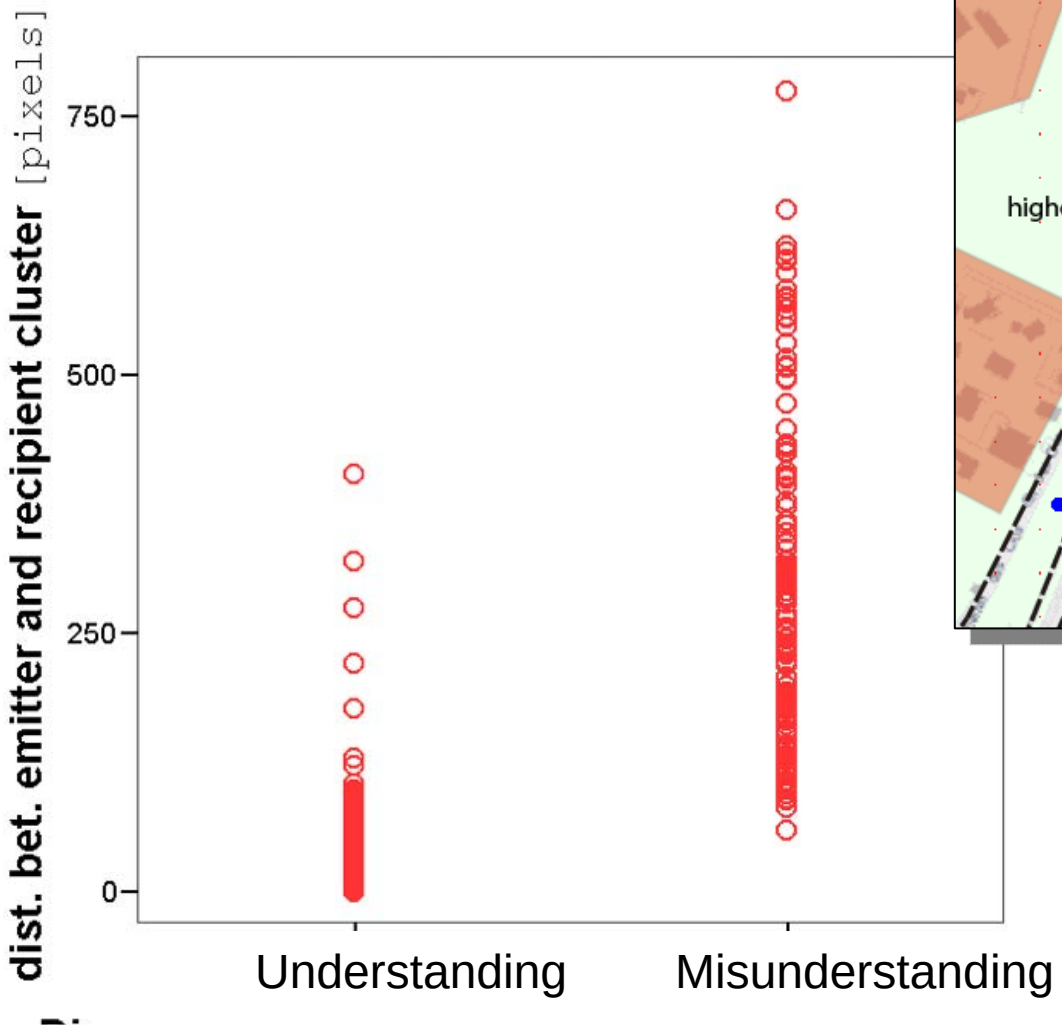


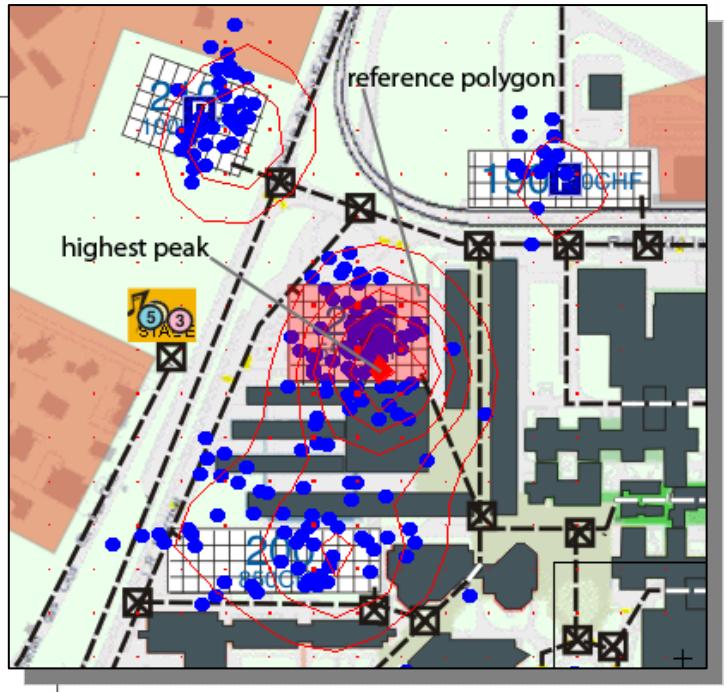
Within 1 minute

$p < .001$

M. Cherubini, M.-A. Nüssli

Gaze distance predicts misunderstandings



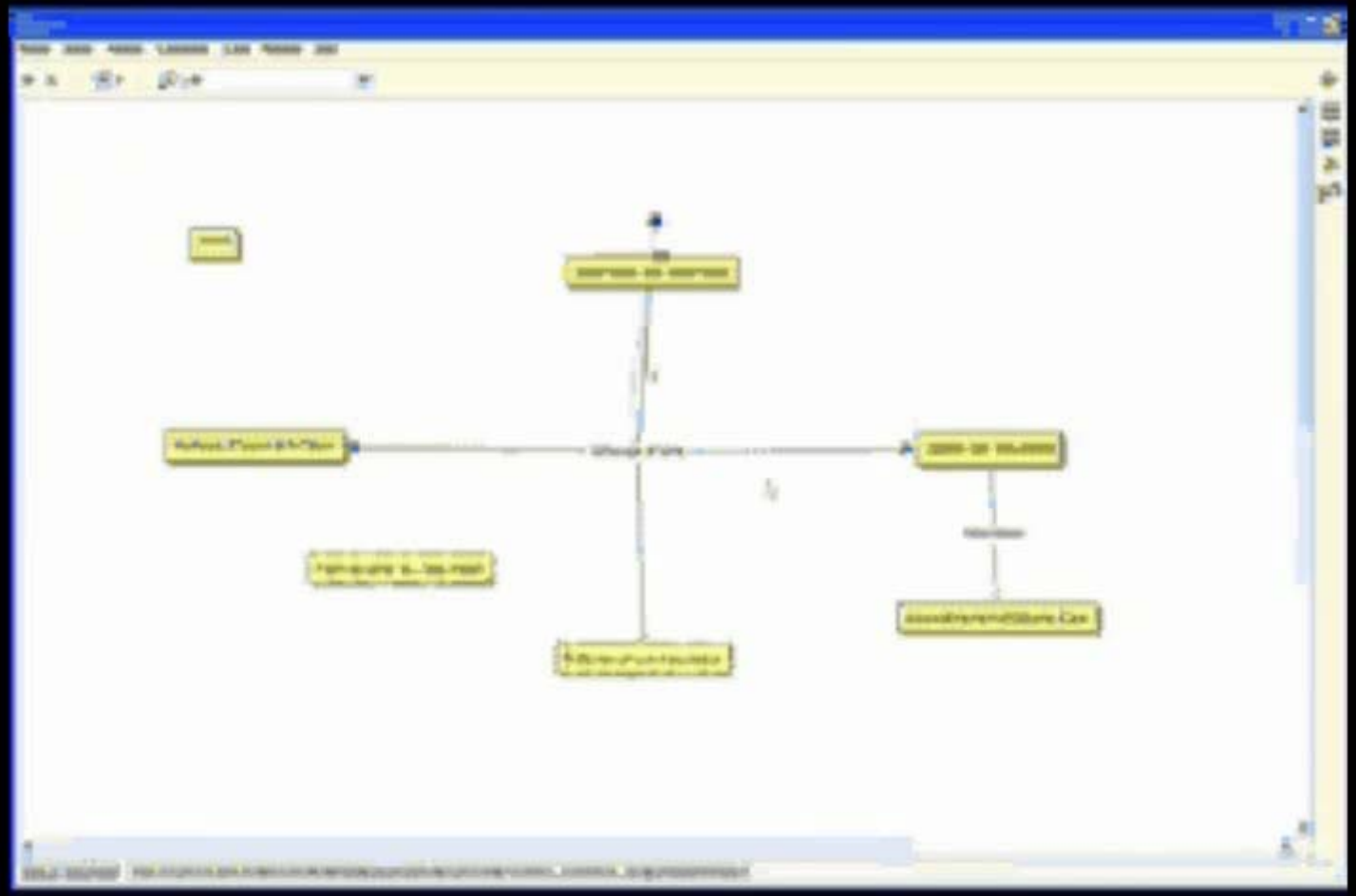


p<.001

(m = 85)

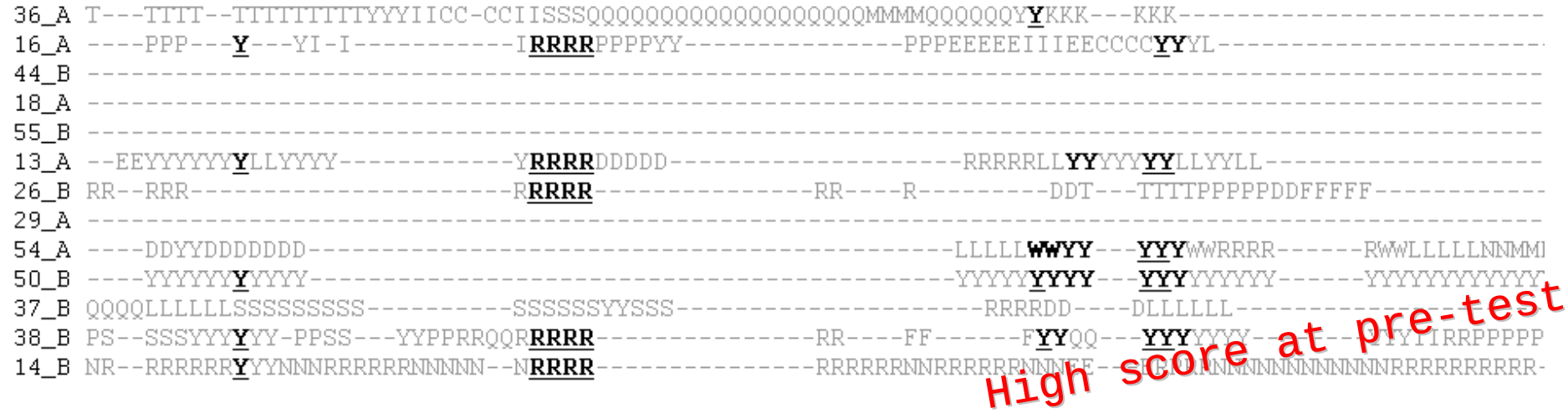
(m = 231)

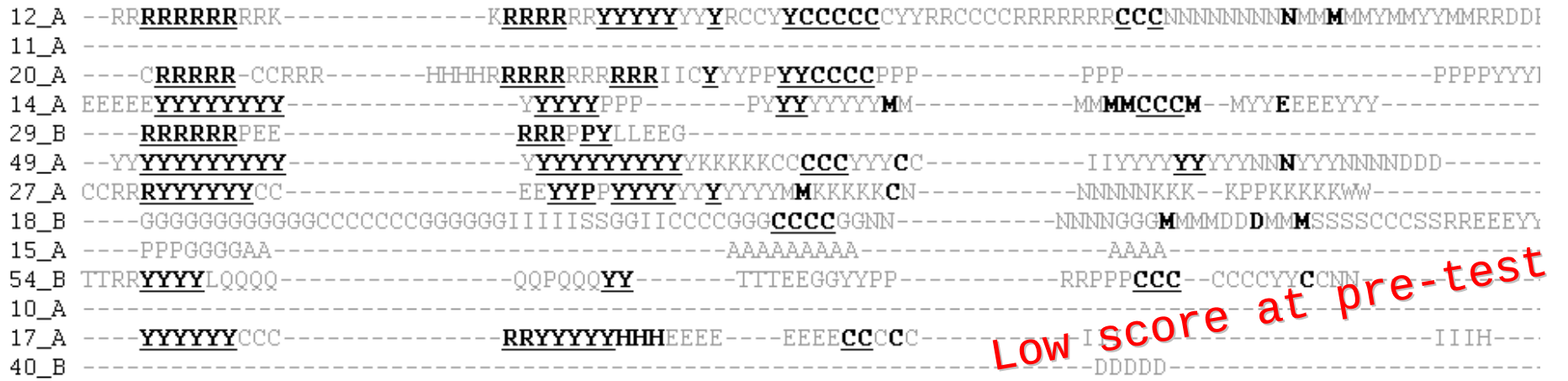
M. Cherubini, M.-A. Nüssli



Mirweis Sangin, Gaëlle Molinari, M.-A. Nüssli

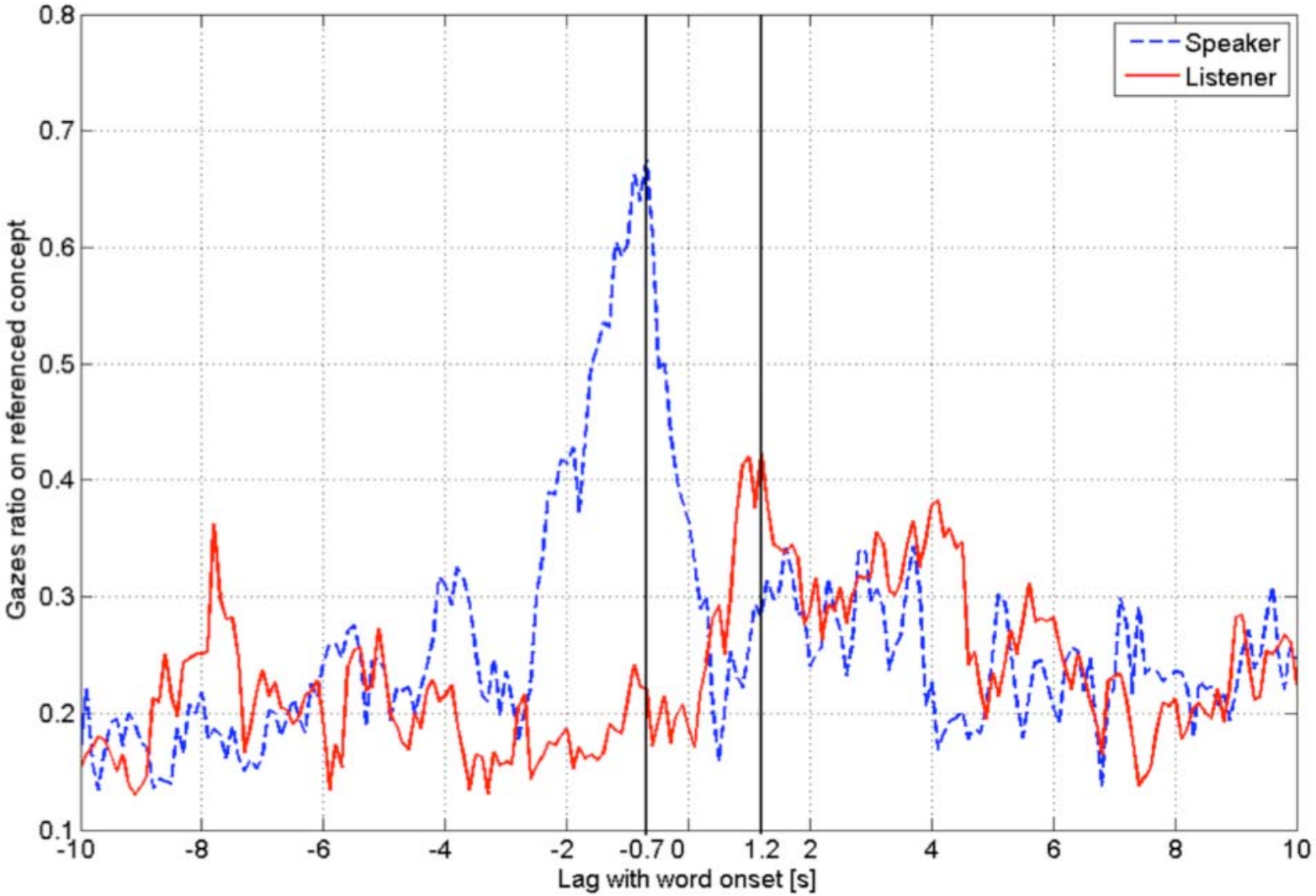
Gazes during the first minute predicts knowldege level (HMM➔ 96% accuracy)





Yan Liu, Pei-Yun Hsueh, Jennifer Lai (IBM Watson Labs)

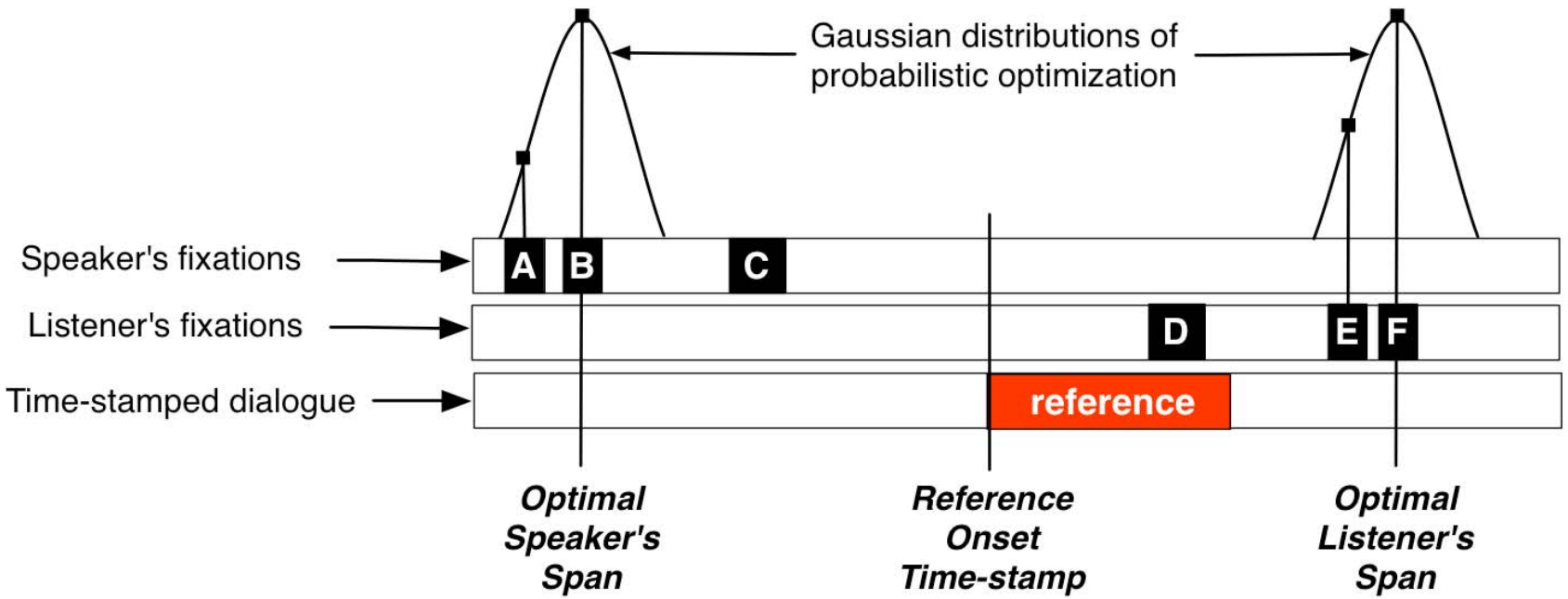
Mirweis Sangin, Marc-Antoine Nüssli, Patrick Jermann



Average gaze ratio on referred concept for different time-spans from the verbal reference onset for manually detected verbal references

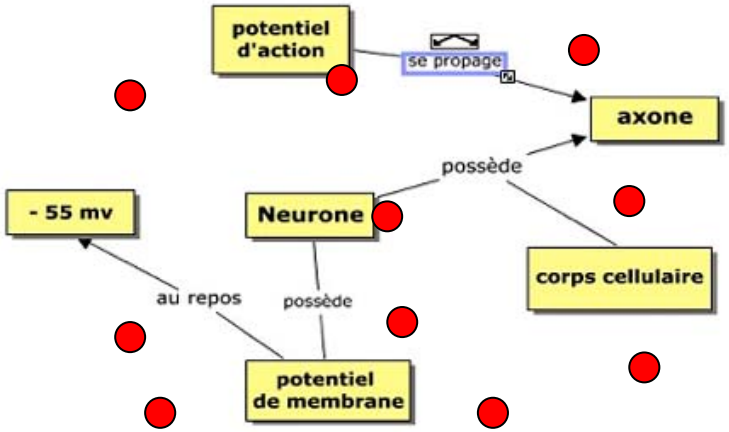
Mirweis Sangin, Marc-Antoine Nüssli, Patrick Jermann

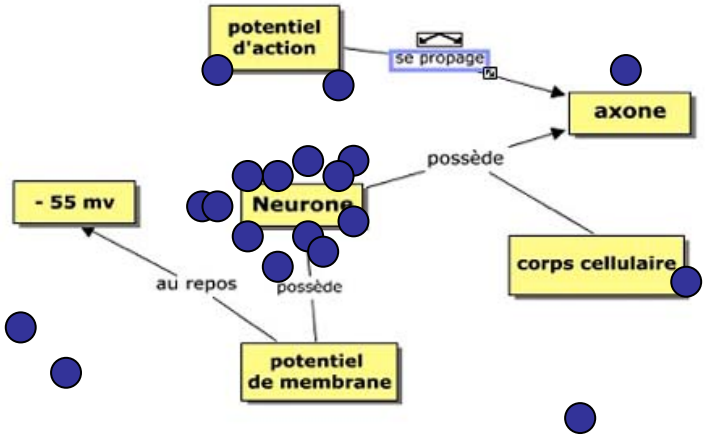
REGARD (REmote Gaze-Aware Reference Detector)



Mirweis Sangin, Marc-Antoine Nüssli, Patrick Jermann

REGARD (REmote Gaze-Aware Reference Detector)





John says “difficult”

John says “neurone”

	Classified as Common-words	Classified as Concept-words		Totals
		Correct matches	Incorrect matches	
Actual Common-words	112	9		121
Actual Concept-words	14	43	4	61
Totals	126	56		182

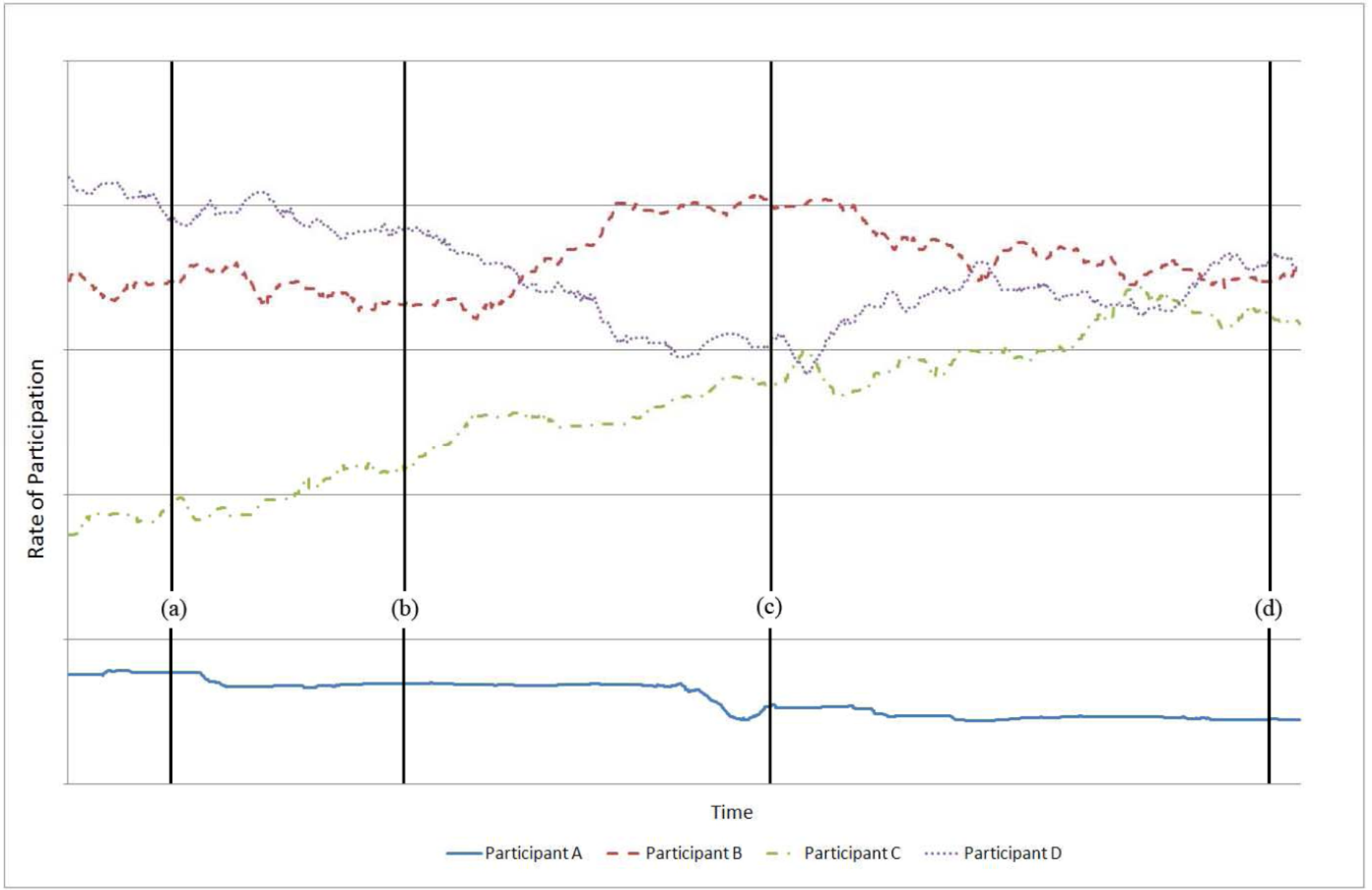
Kappa = 0.71

Mirweis Sangin, Marc-Antoine Nüssli, Patrick Jermann

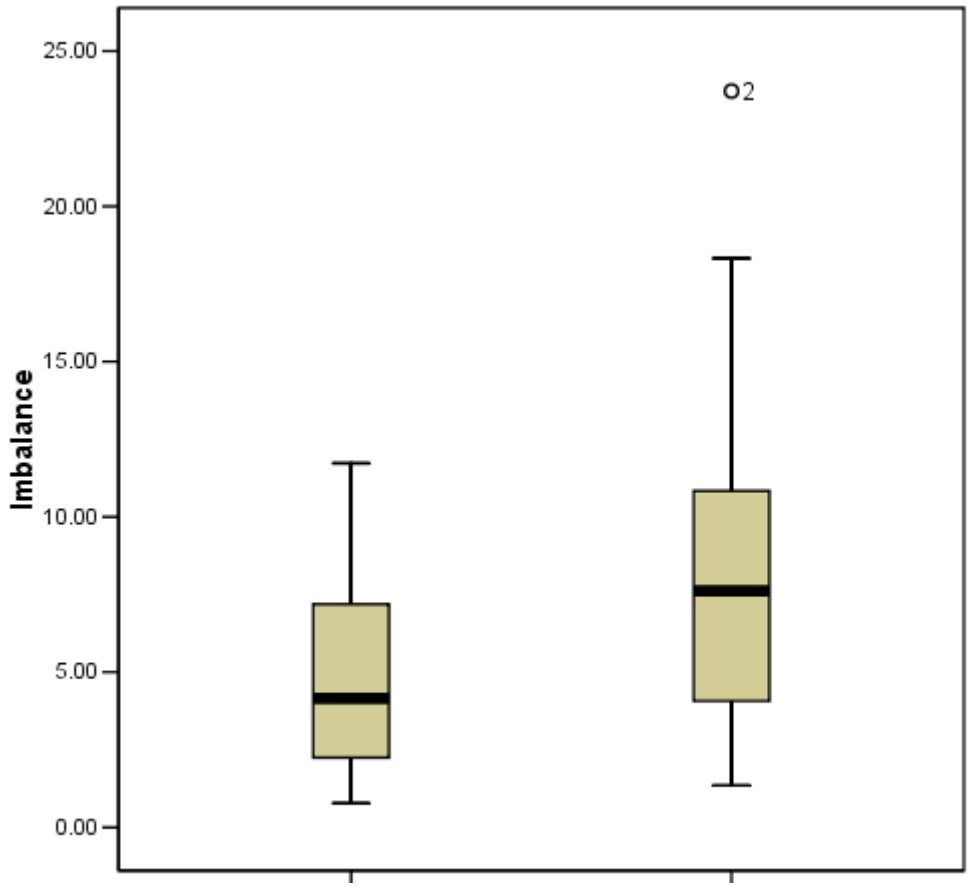
Reflect

Khaled Bachour, F. Kaplan, W. Hokenmeier, A: Gulati, Q. Bonnard

ierre Dillenbourg, EPFL



Khaled Bachour, Frédéric Kaplan, Jean-Baptiste Haué, Quentin Bonnard, Wolfgang Hokenmaier



T-Test: $t = 2.176,\ p = 0.036$

Not smart

(Mirroring < Predicting)

No Login !

Low resolution

User's perspective

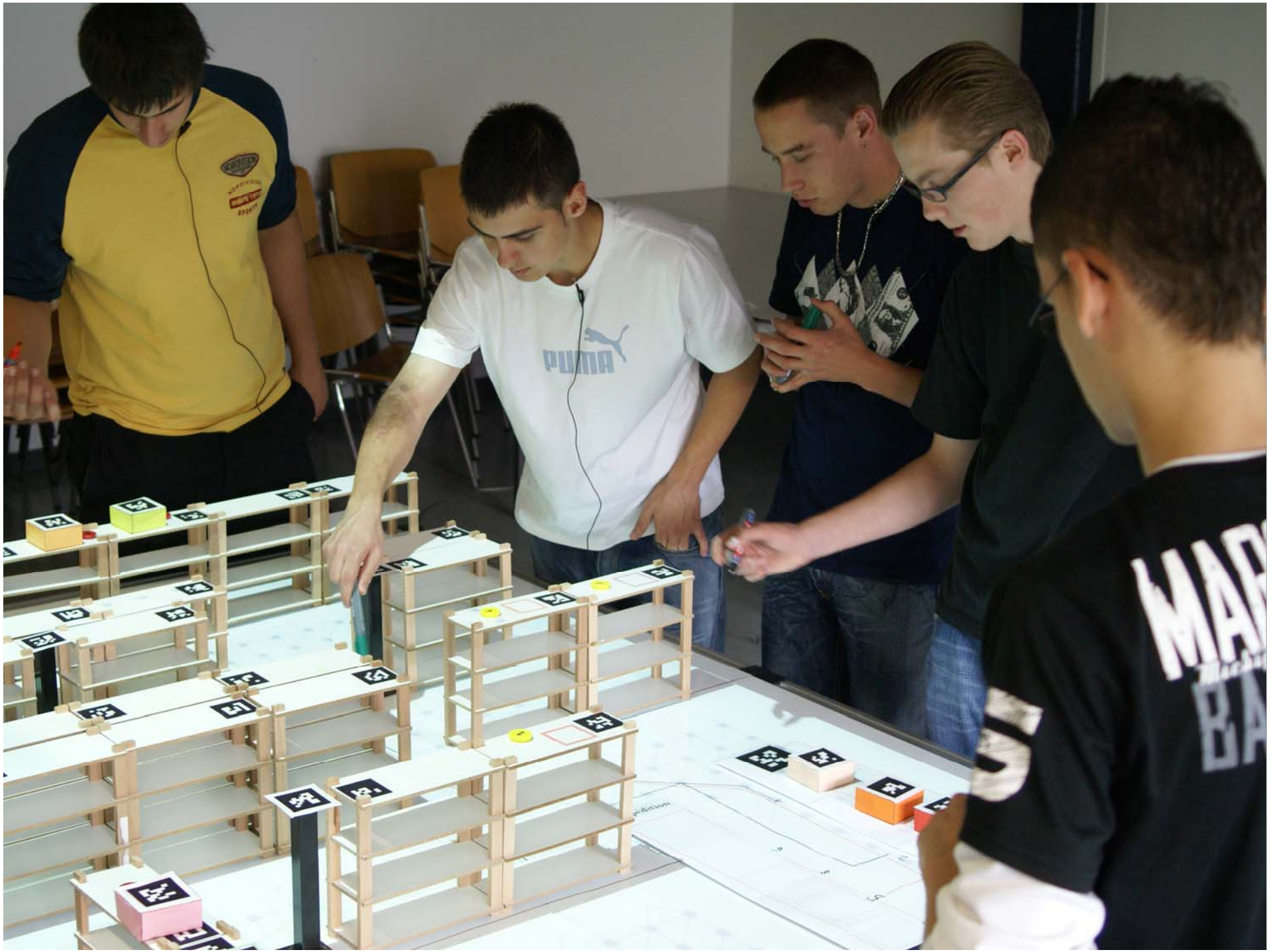
(Before) Ethnography

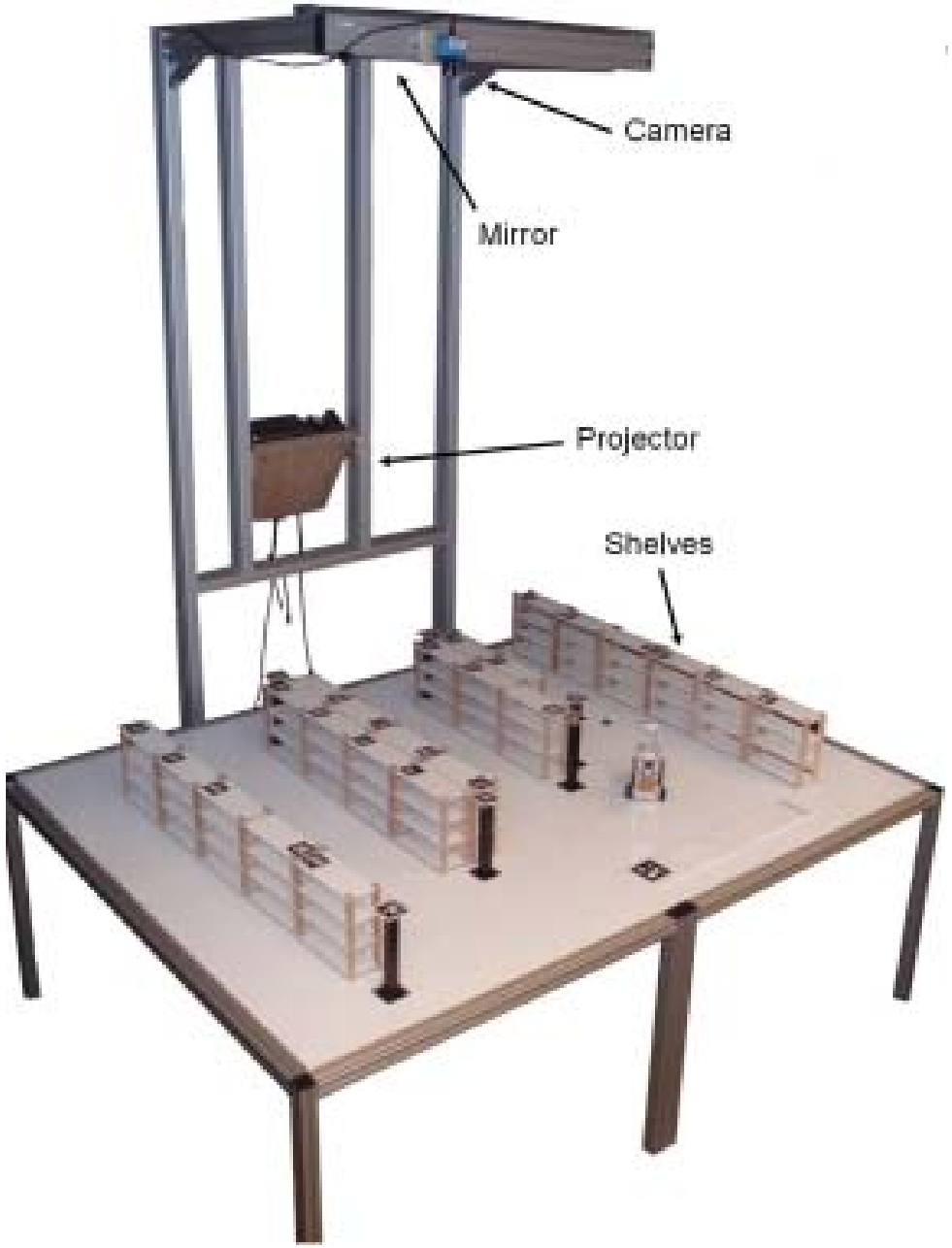
(Early) Prototyping

(Later) Usability

(After) Experiments

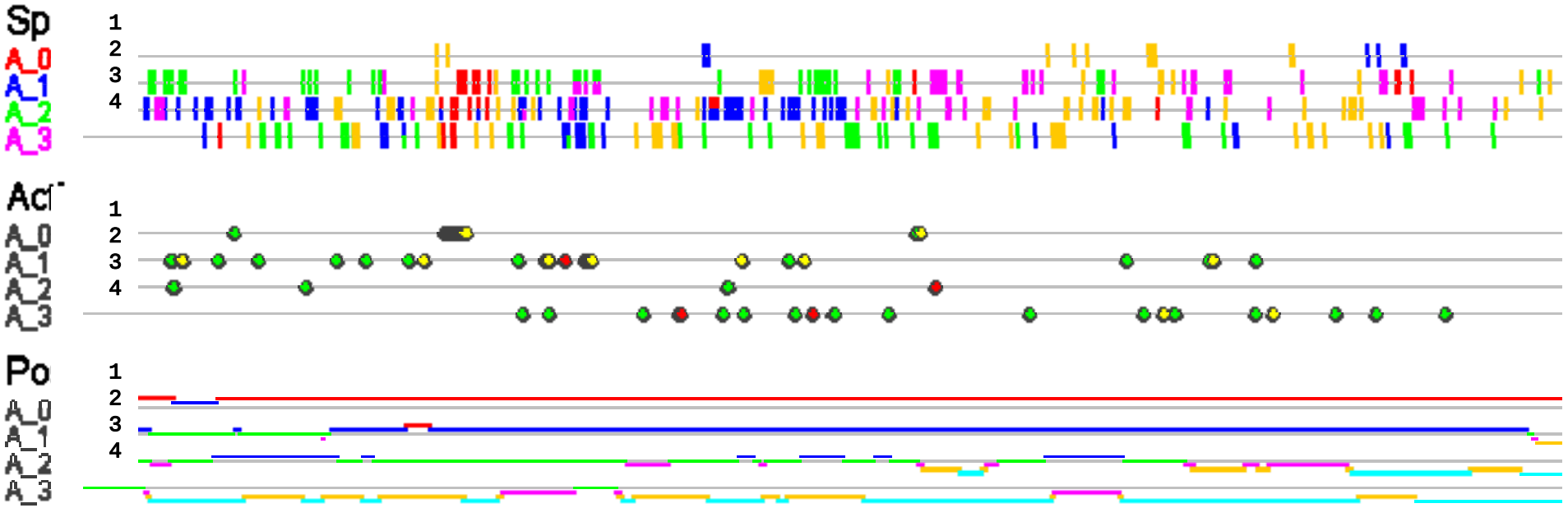

KOSMOS
200
500
KOSMOS
KAEFER-ROBOTER
ART. NR. 658014
INHALT 5 STK.
MADE IN CHINA
Elektro-Krokodil


PUMA

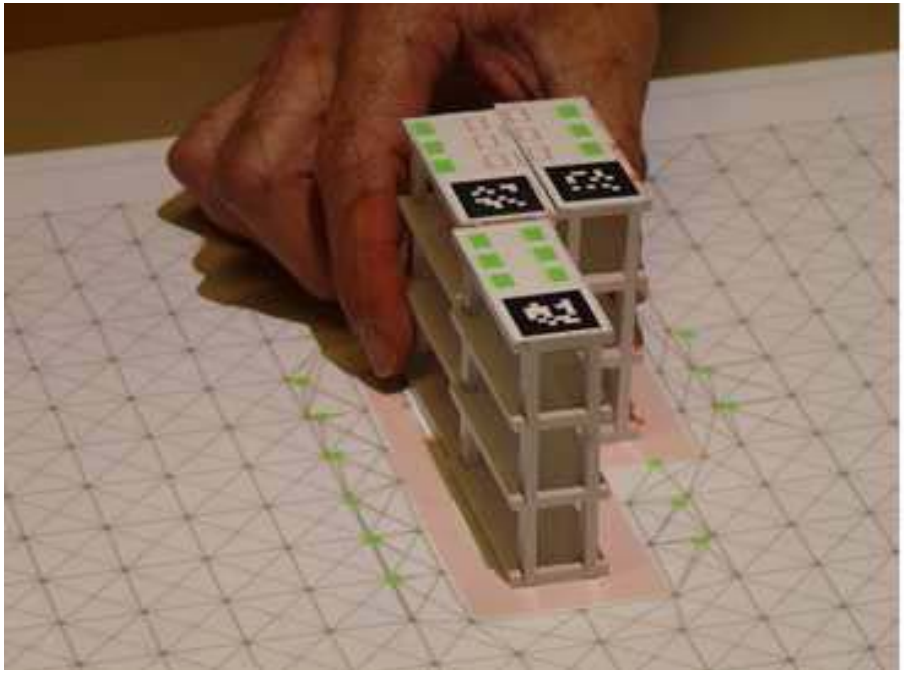

Camera
Mirror
Projector
Shelves

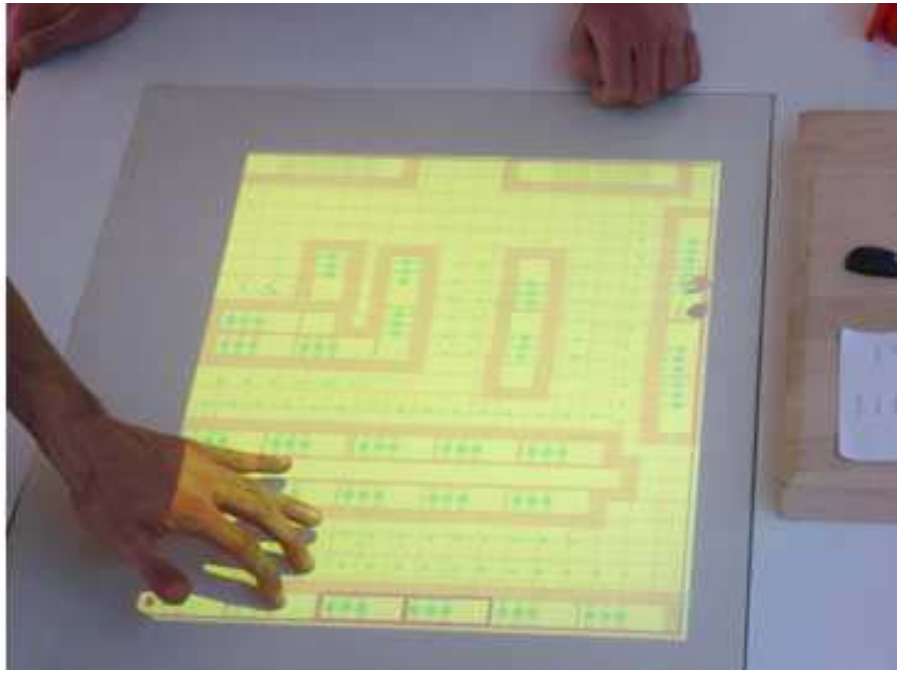
TinkerTable

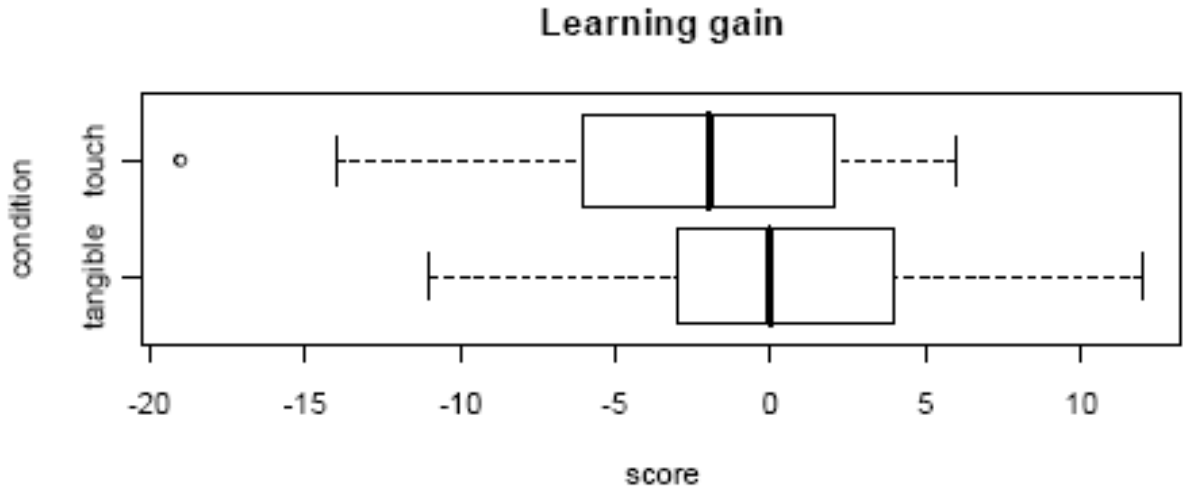
Guillaume Zufferey, Patrick Jermann



Pierre Dillenbourg, EPFL

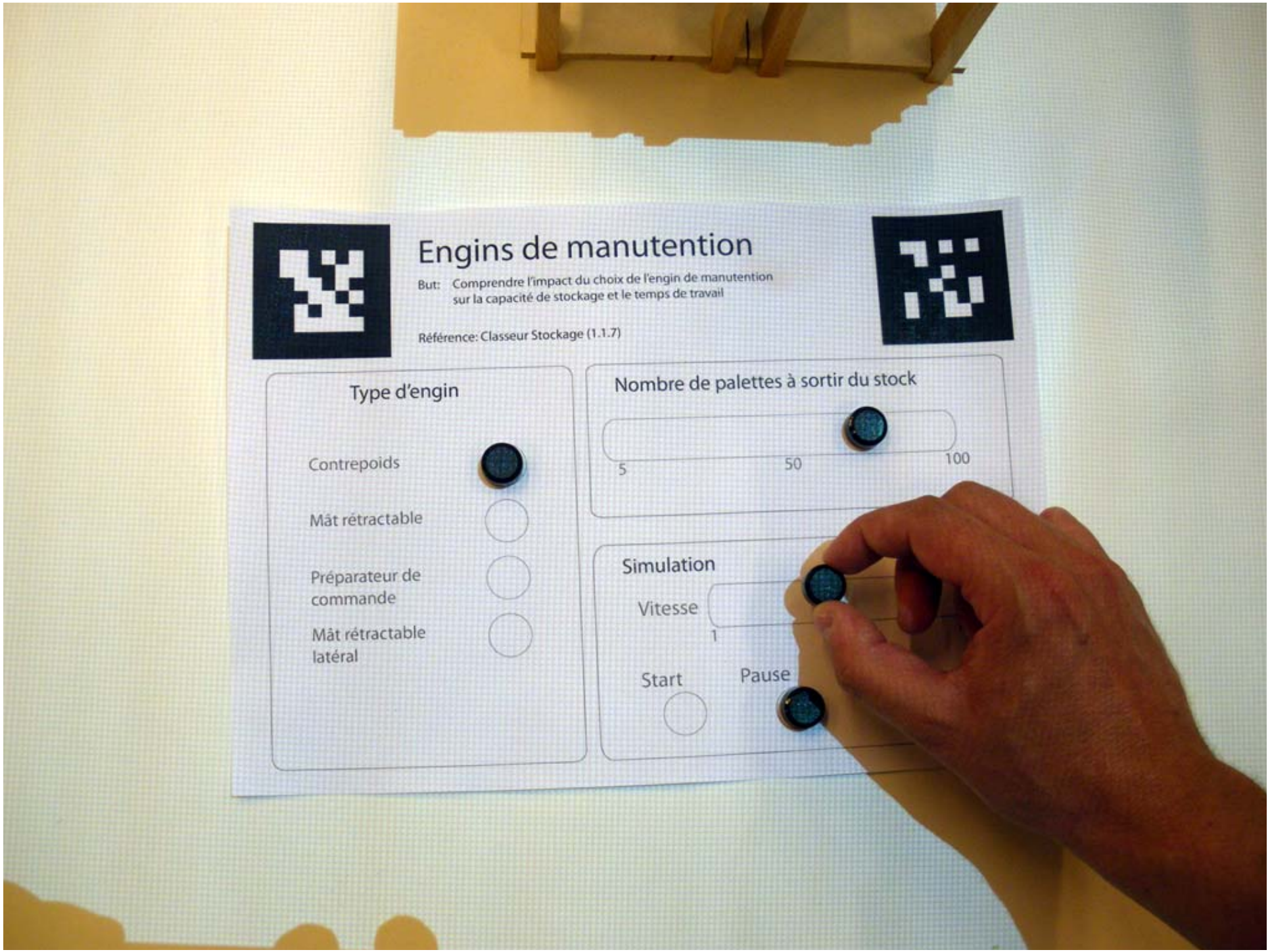






$F(1,37) = 6.68,\ p < .05$

Bertrand Schneider, Aurelien Lucchi


Engins de manutention
But: Comprendre l'impact du choix de l'engin de manutention sur la capacité de stockage et le temps de travail
Référence: Classeur Stockage (1.1.7)
Type d'engin
Contrepoids
Mât rétractable
Préparateur de commande
Mât rétractable latéral
Nombre de palettes à sortir du stock
5
50
100
Simulation
Vitesse
1
Start
Pause

Dual-T
Project 3

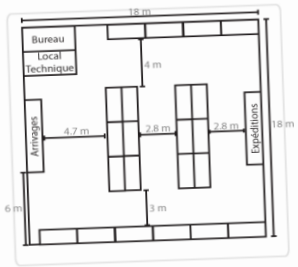
Technologies for Vocational Training

Leading House funded by the
Swiss Federal Office for
Professional Education and Technology

Surfaces de stockage

Entrepôt

1) Implantez l'entrepôt dont le plan est dessiné sur la figure ci-contre.



Surfaces de stockage

2) Reportez les valeurs des surfaces de stockage dans les cases prévues de la feuille de travail ci-contre.

Que pensez-vous du degré d'utilisation de cet entrepôt?

Comment pourriez-vous l'augmenter? Pourquoi est-ce important?

Surf. brute	=	largeur x hauteur	=		x		=	m2
Surf. brute de stockage	=	Surf. brute - locaux annexes	=		-		=	m2
Surf. nette de stockage	=	Surf. brute de stockage - Allées de circulation	=		-		=	m2
	=	Nombre d'étagères x Surf. d'une étagère	=		x			
Degré d'utilisation	=	Surf. nette de stockage / Surf. brute de stockage	=				=	%

Exploitation

3) Simulez 30 minutes de travail avec 1 gerbeur, et reportez les valeurs dans les cases prévues ci-contre.
Combien faudrait-il de gerbeurs pour sortir 100 palettes en 1 heure?

A votre avis, quel est le type de chariot le plus efficace dans cet entrepôt?

Chariots élévateurs

Type	Nombre
Gerbeur	1
Mat rétract.	2
Contrepoids	3
	4
	5

ABC oui ○ non ○

Heure :

Palettes sorties : Par jour:

Article 1 : Article 1 :

Article 2 : Article 2 :

Article 3 : Article 3 :

Temps moyen par palettes (sec.):

Pierre Dillenbourg, EPFL

Pierre Dillenbourg, EPFL

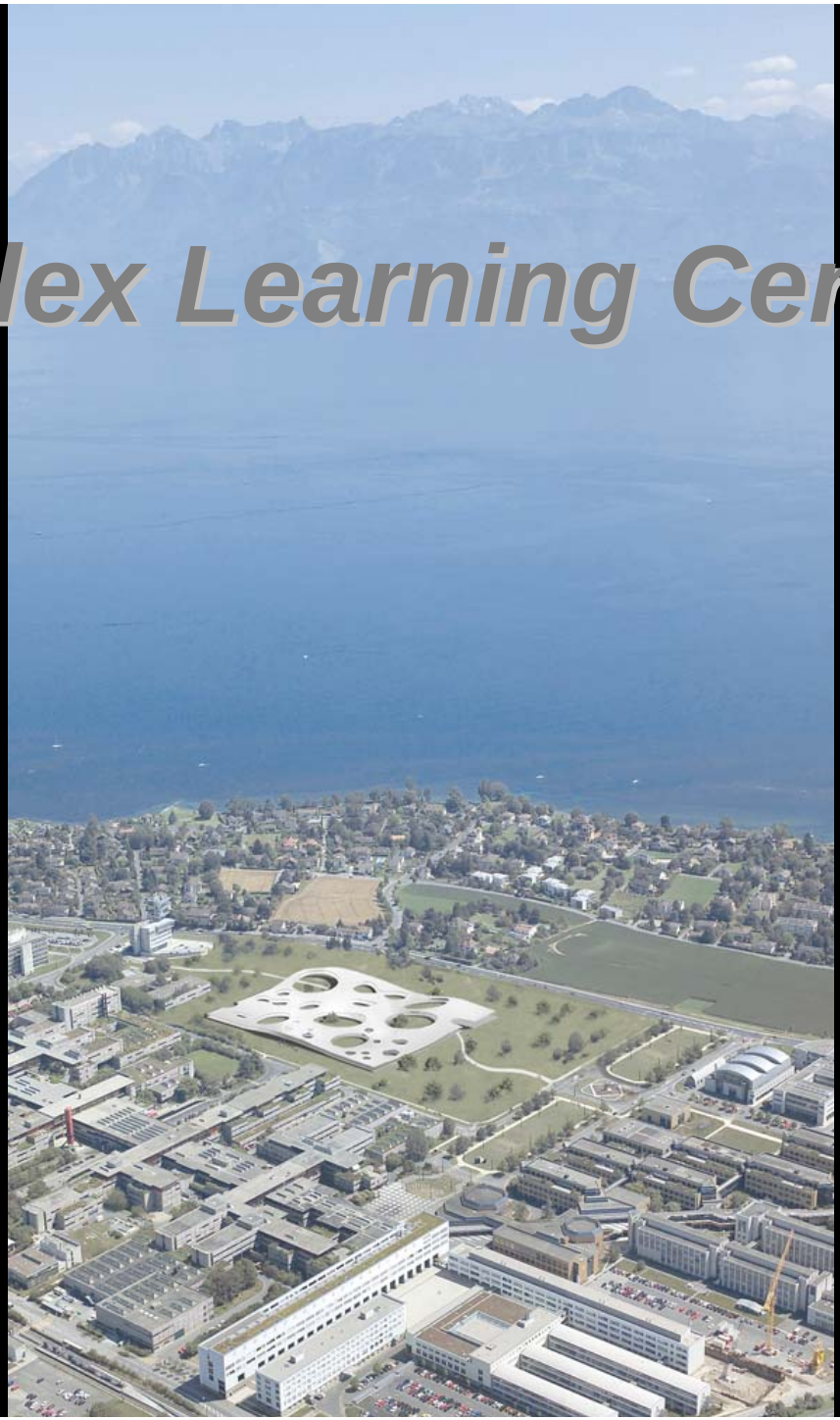

QB1
Frédéric Kaplan, J. Besuchet, C. Bucher, O. Guédat

Frédéric Kaplan, J. Besuchet, C. Bucher, O. Guédat
Pierre Dillenbourg, EPFL

The Approach

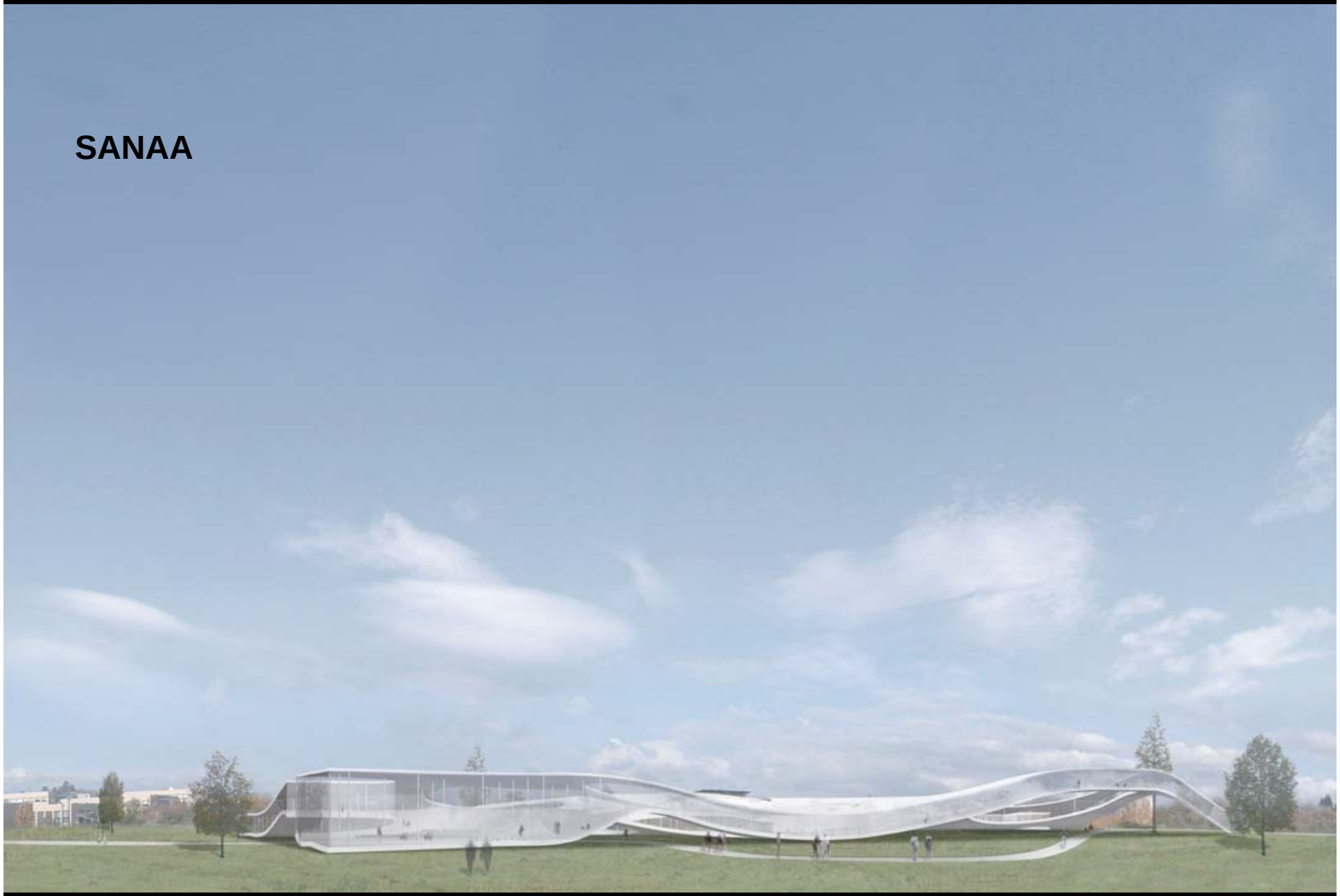
- Not e-learning but augmented teamspaces
- “Modest”= not smart, light, semi-ambient,
- Physical, not virtual
- User-oriented = less bla-bla, more data

Rolex Learning Center



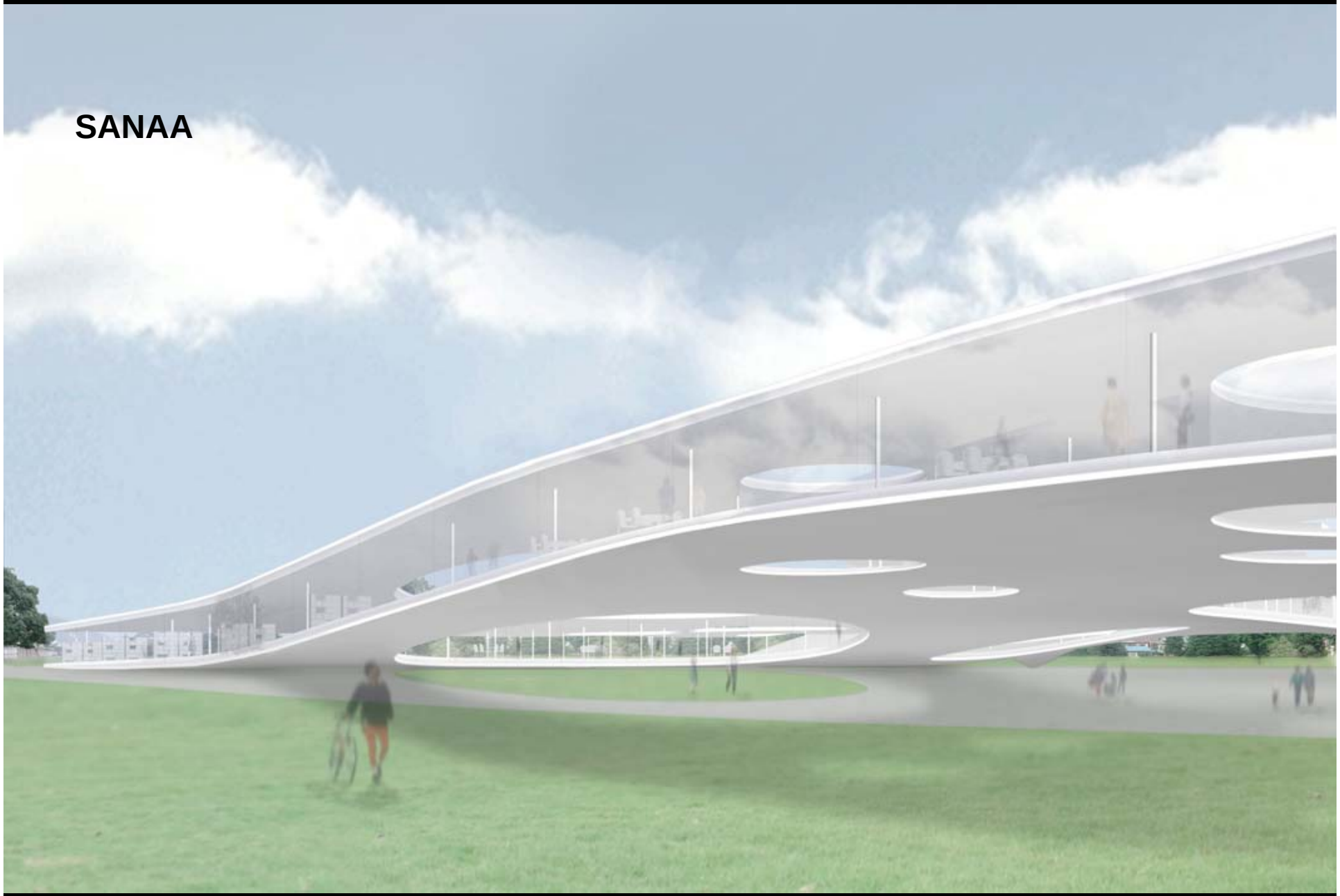
SANAA

SANAA



Rolex Learning Center (EPFL), Architects: SAANA

SANAA



Rolex Learning Center (EPFL), Architects: SAANA

SANAA

Rolex Learning Center (EPFL), Architects: SAANA

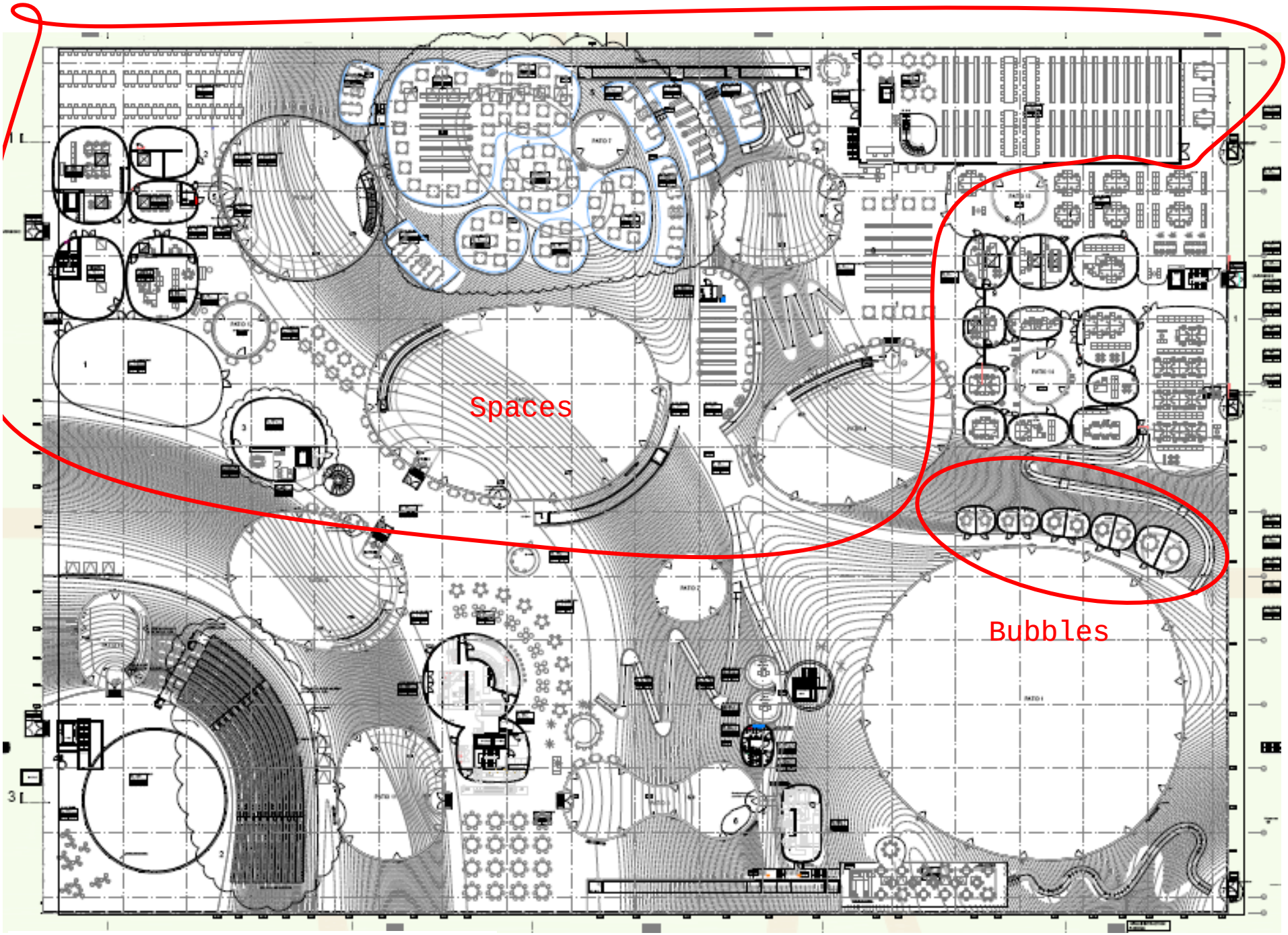
SANAA

Rolex Learning Center (EPFL), Architects: SAANA

SANAA

Rolex Learning Center (EPFL), Architects: SAANA

Rolex Learning Center (EPFL), Architects: SAANA



Rolex Learning Center (EPFL), Architects: SAANA

Goal in IM2/Phase III

bits of IM2 ➔ augment social spaces

(1 PhD student)


CRAFT.EPFL.CH Guillaume Zufferey, Patrick Jerman, Gaëlle Molinari, Frédéric Kaplan, Son Do-Lenh, Khaled Bachour, Betrand Schneider, Quentin Bonnard, Andrea Mazzei, Wolfgang Hokenmaier, Olivier Guedat, Cecile Bucher, Jonathan Besuchet, Jean-Baptiste Haué, Marc-Antoine Nüssli, Mirweis Sangin, Mauro Cherubini, Fabrice Hong, …
ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE