
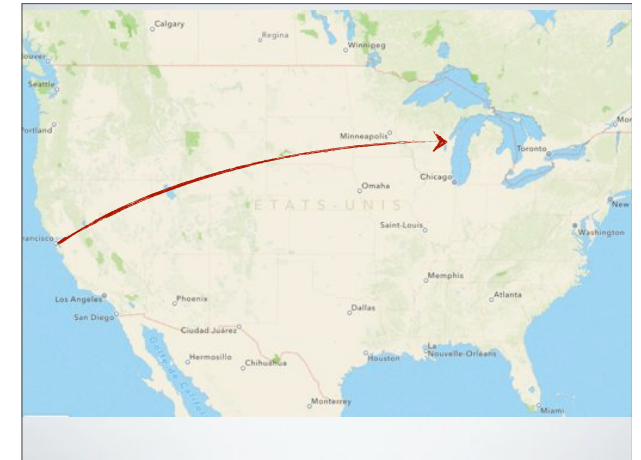


# Visualisation & Interactions Avancées : Augmenter la Bande Passante Interactive


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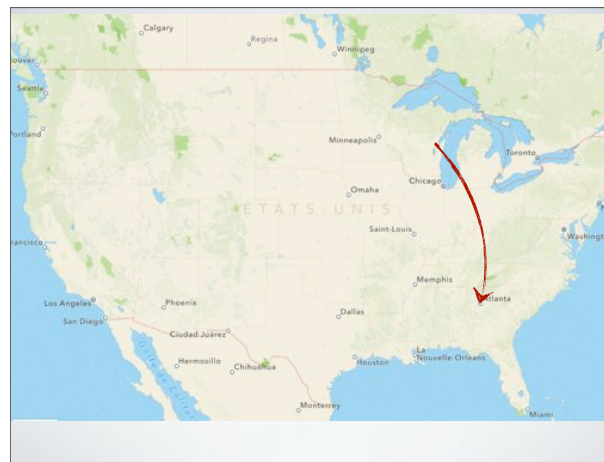
26 novembre 2012



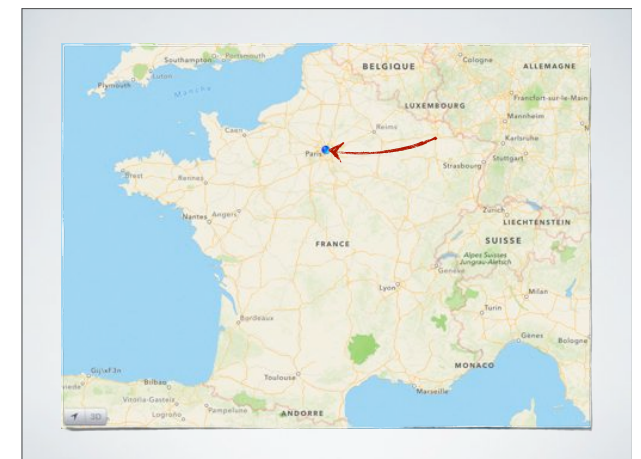



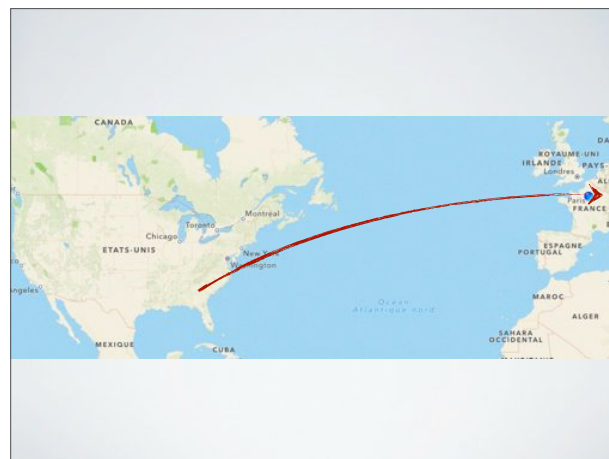
**LAWRENCE  
UNIVERSITY**



B.A. Mathematics/Computer Science, 2000



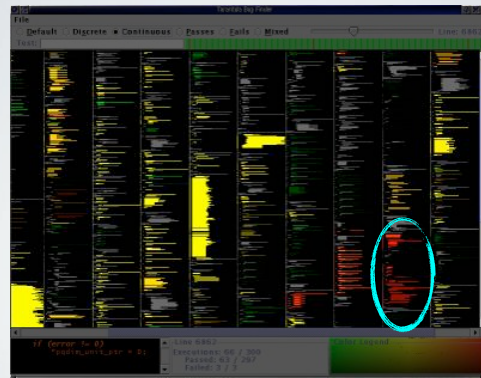
M.S. Computer Science, 2006  
Ph.D. Computer Science, 2008



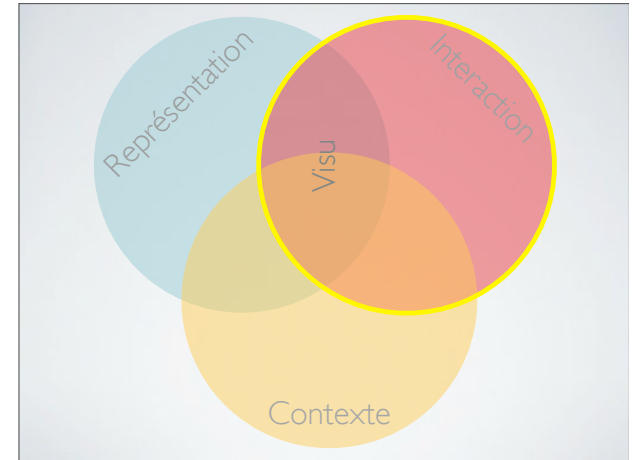




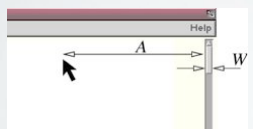
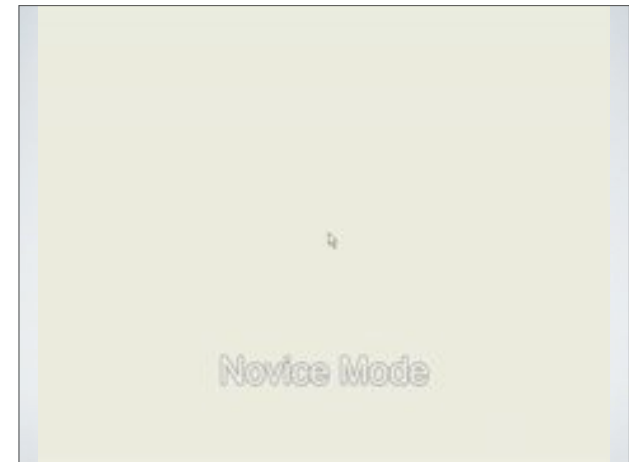
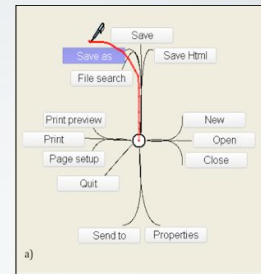
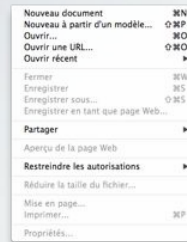
[ Eagan et al., InfoVis '01 ]



[ Eagan et al., InfoVis '01 ]



- Comment augmenter la bande passante interactive ?
- Améliorer l'apprentissage et la mémorisation
- Exploiter de nouveaux canaux d'interaction
- Aussi :
  - Interaction à l'aveugle (eyes-free)
  - Qualité de l'expérience utilisateur



$$T = k_1 * \log_2 (1 + A/W) + k_2$$



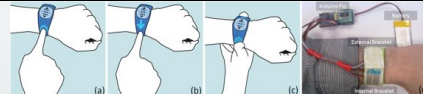
[ Guiard & Olafsdottir, PLoS ONE '11 ; Olafsdottir et al., BCS '12 (best paper) ]

Simon T. Perrault, Sylvain Malacria, Yves Guiard, Eric Lecolinet

## WatchIt

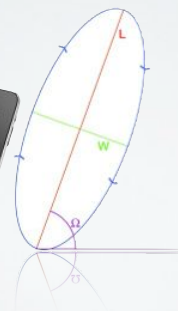
Augmenting interaction on a wristwatch using gestures on the watchband

Telecom ParisTech - IC2 VIA Team - 2012  
<http://www.telecom-paristech.fr/~VIA>

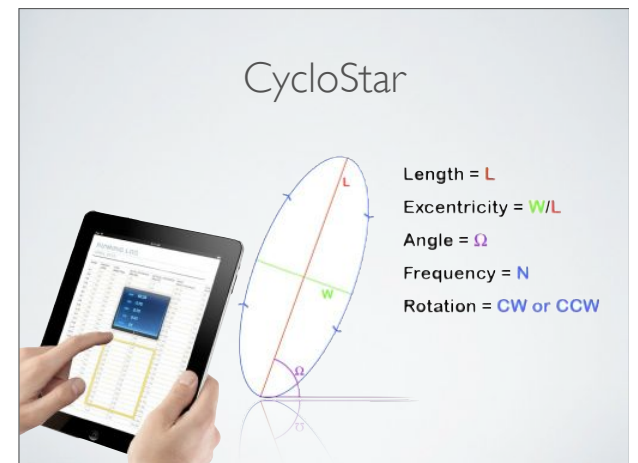


[ Perrault et al., CHI '12 ; Perrault et al., CHI '13 (en soumission) ]

## CycloStar



- Length = L
- Excentricity =  $W/L$
- Angle =  $\Omega$
- Frequency = N
- Rotation = CW or CCW



# CycloStar



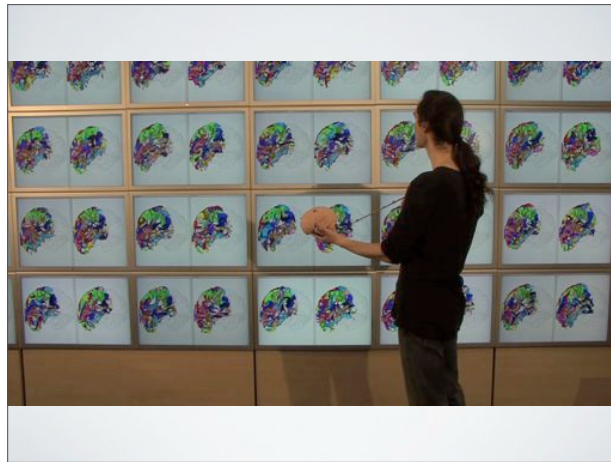
[ Malacria et al., CHI '10 ]

# Substance Grise



[ Gjerlufsen, Klokrose, Eagan, Pillias & Beaudouin-Lafon, CHI '11 ]

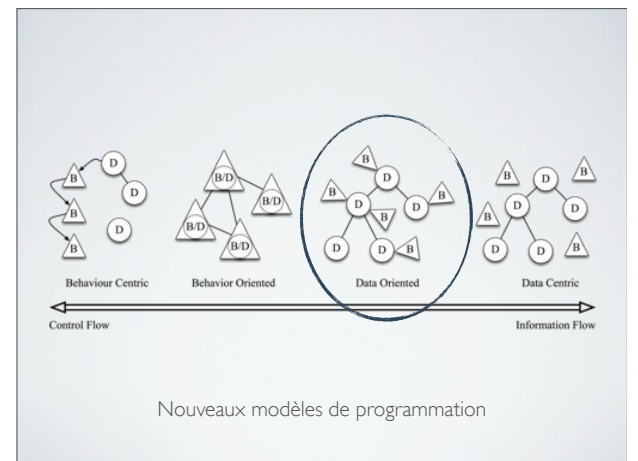
# Substance Grise



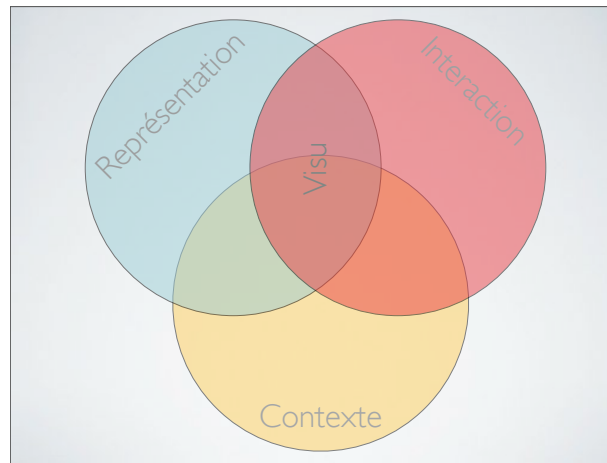
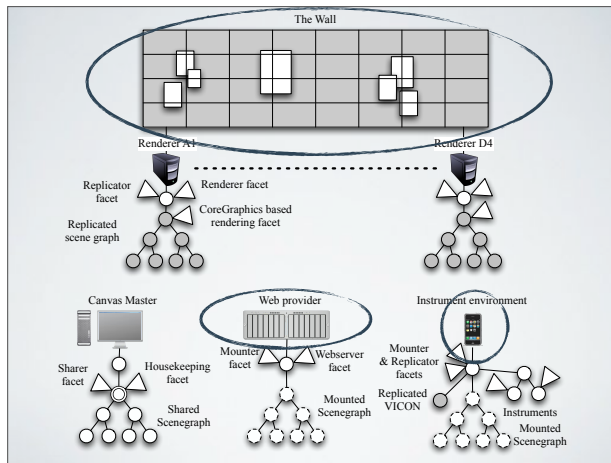
[ Eagan, Beaudouin-Lafon & Mackay, UIST '11 (notable paper) ]



[ Eagan, Beaudouin-Lafon & Mackay, UIST '11 (notable paper) ]



Nouveaux modèles de programmation






Merci.

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