



The Montreal Cognitive Assessment (MoCA) is sensitive to head injury and cognitive impairment in a residential alcohol and other drug therapeutic community

By Jo Lunn

Agenda

This presentation will provide a brief outline of:

1. Initial study determining rates of Cognitive Impairment (CI) at WHOS
2. The current cognitive remediation study at WHOS
3. Where to from here?



Where it started...



- ▶ 2010 - WHOS obtained small grant (MHDAO -Practice Enhancement Program)
- ▶ Literature demonstrated high levels of CI in AOD populations –NADA literature review
- ▶ WHOS needed
 1. a way to determine the numbers of clients with CI accessing WHOS services
 2. be able to evaluate efficacy of any new intervention/s implemented

Starting Point



- ▶ Conventional neuropsych assessments are completely beyond the reach of WHOS to provide
- ▶ WHOS commissioned a literature review to determine if a suitable screening tool existed.
- ▶ Literature review identified MoCA (a tool developed for GPs to screen for early signs of Dementia) which primarily screened for deficits in Executive Function

Montreal Cognitive Assessment

- ▶ MoCA was chosen for a trial because:
 - Administration does not require extensive training or qualification
 - No cost outside of initial staff training
 - Quick to administer 15-20 minutes (realistic for front-line staff)
 - 1 study had previously used this assessment with an AOD population
- ▶ WHOS, Dr Jamie Berry and UoW set up a small scholarship with a Psychology Honors student

Using a Brief Screening Tool to assess Cognitive Impairment in residents of an Alcohol and other drug Therapeutic Community (*Journal of Substance Abuse Treatment, July 2016 Vol 666, 30-36*)

MoCA was used to screen

- ▶ 128 AOD clients from across WHOS multiple sites
- ▶ 37 participants (control) of UoW mature age entry program.

Outcome

- ▶ **43.8%** of clients attending WHOS services scored in the CI range compared to 16.2% of the control group
- ▶ *Of note 77.2% of the AOD population had sustained a serious head injury with 50% of those requiring hospitalisation for the head injury.*

Impact of impairment in executive function



- ▶ If clients have impaired cognitive function particularly executive functioning they have:
 1. Reduced capacity to organise, plan, solve problems
 2. Reduced capacity to make decisions quickly
 3. Reduced capacity to moderate emotions

All of these skills/capacities are essential to promote and achieve successful behaviour change.

Next step...

Therefore to increase WHOS capacity to effectively treat clients with AOD issues-

- ▶ *Can WHOS staff deliver a cognitive remediation program that increases a client's capacity to change their behaviour?*
- ▶ UOW Partnerships Grant (2014) between UoW, Dr Jamie Berry and WHOS Improving Organisational Capacity Project



Study Design -2015

Intervention

- ▶ 12 x 2 hour sessions, run 3 times per week over 4 week
- ▶ Intervention comprised of:
 - 1 hr of group work-**Top down** (focusing on strategies to address executive function deficit, as well as attention and memory strategies)
 - 1 hr Lumosity Brain training **Bottom up** (completed on iPads)
- ▶ Assessment at baseline, 1 month and follow-up at 3mths

Control condition

treatment as usual-condition was completed post intervention (i.e. once all clients who had completed the intervention had left the service)

Early days but it's looking good...

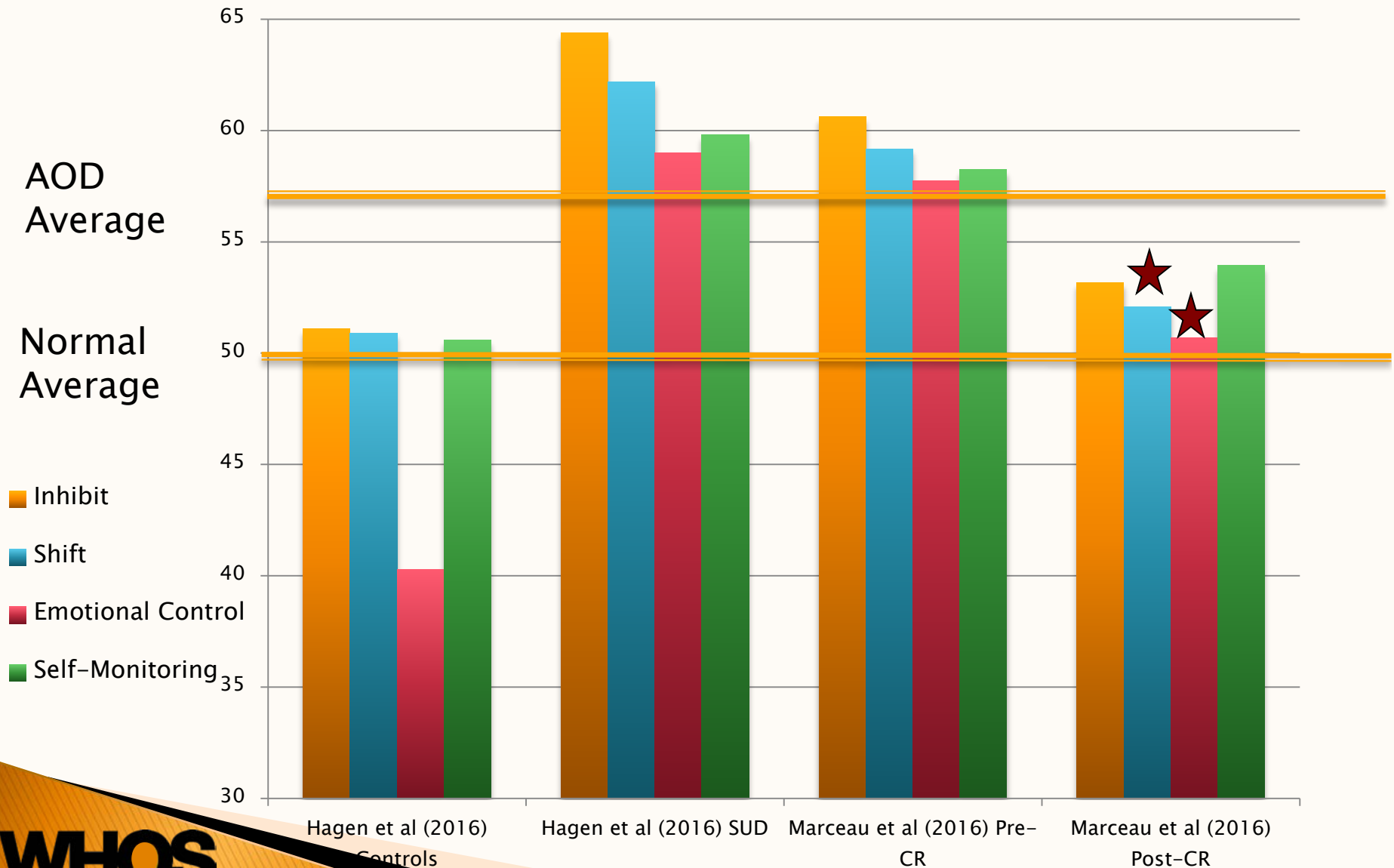


Intervention took place in New Beginnings in August 2015

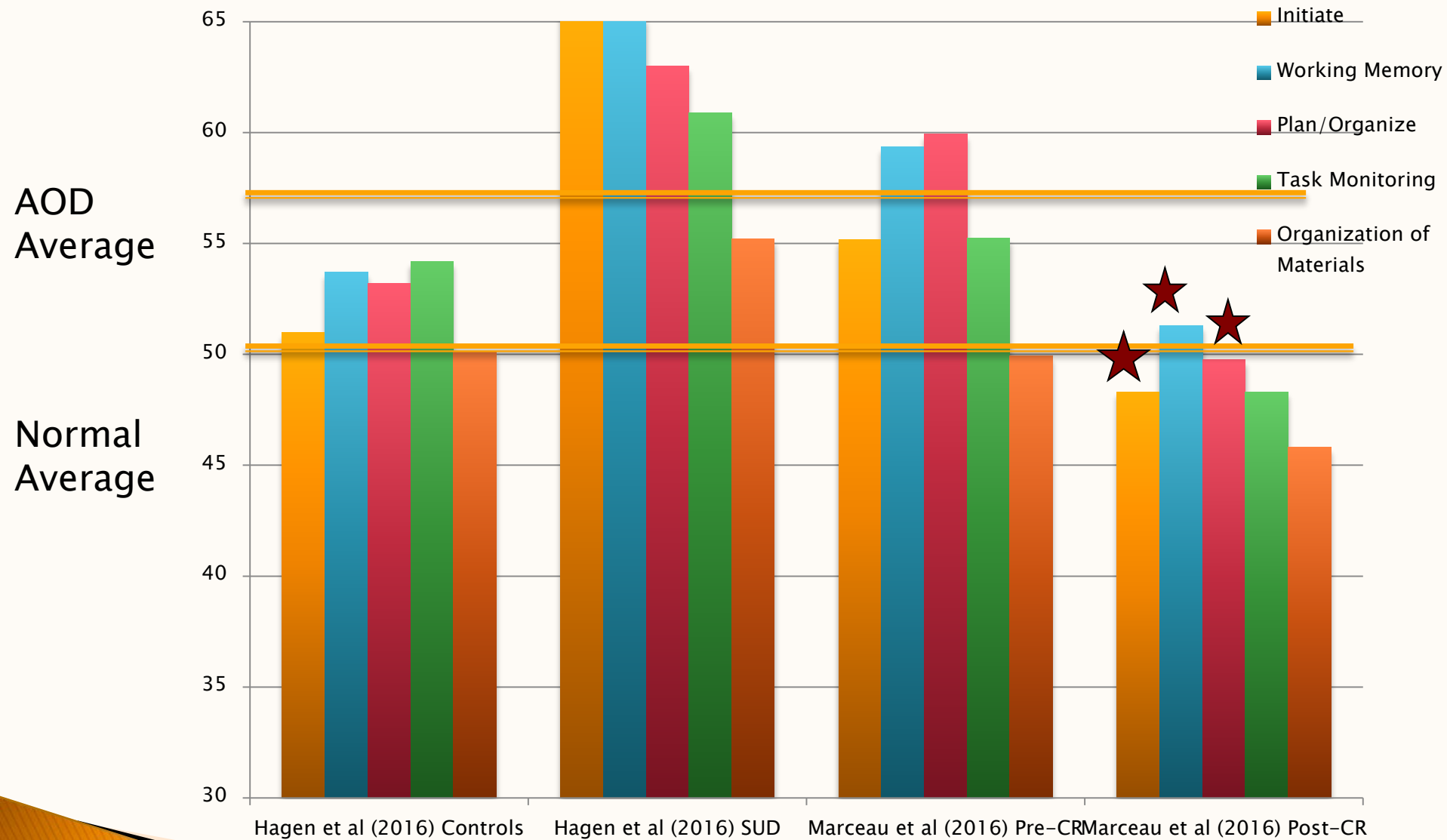
- ▶ 23 clients started the study, 16 completed the intervention
- ▶ 12 of those 16 have completed 3mth follow-up
- ▶ 17 clients comprised control group at baseline and 1mth
- ▶ Currently completing the data collection for the 3mth follow-up control group, all data collection should be finalised by mid June -2016

Clients loved the intervention!!

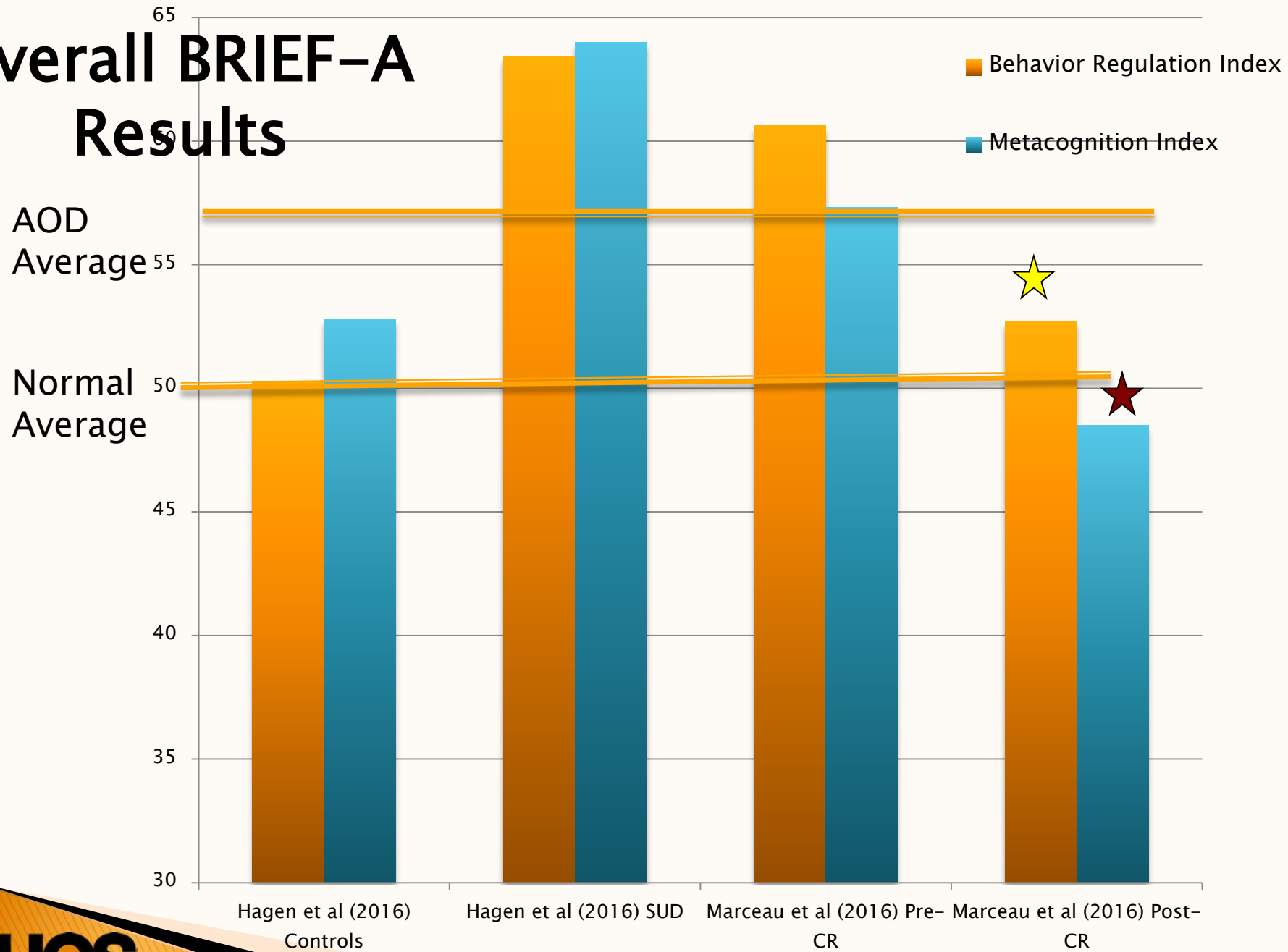
BRIEF-A: Behavior Regulation



BRIEF-A Metacognition



Overall BRIEF-A Results



Where to from here?

- ▶ Further trials of Lumosity only
- ▶ Developing the group resources
- ▶ Staff training
- ▶ Conduct the next trial with staff facilitating the intervention
- ▶ If successful: re-write program schedule to ensure cognitive remediation is a standard component of WHOS AOD treatment



Submitted an abstract to the ACI Innovation Forum for expansion of resources and further roll out and evaluation

Thank you for your time

Jo Lunn

WHOS Improving Organisational Capacity
Project Officer

jo.lunn@bigpond.com