HUDK 4050: CORE METHODS IN EDM

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In the news

THE IMPACT LEARNING ANALYTICS IS HAVING ON HIGHER EDUCATION

Northeastern University
Graduate Programs

HOW ARTIFICIAL INTELLIGENCE IS REVOLUTIONIZING EARLY CHILDHOOD EDUCATION

THE TECH EDVOCATE

Microsoft's Dan Ayoub Explains How AR/VR Can Produce Measurable Results in Learning

edtechtimes

EdSurge

Anthropologist Mimi Ito: Good Intentions Don't Always Mean Equitable Outcomes in Edtech

Palm's Weird New Tiny Smartphone Sidekick Says Something Sad About Our Phones

Events

Title	Date	Link
ODSC Warmup	October 3 - November 3	https://attendee.gotowebinar.com/register/2294337013425062657
All Tech Is Human: A Summit on Ethical Tech	October 20	https://ethicaltechsummit.splashthat.com/)
rXinEDU	October 25	https://edtechtimes.com/xr-in-edu/#anchor_register
Quantitative Ethnography (NYU)	12:00pm October 30	http://tinyurl.com/LEARN10-30-18
Capitalizing on the Cellular Technology – Opportunities and Challenges for Near Ground Weather Monitoring	2:00pm November 8	https://events.columbia.edu/cal/event/eventView.do?b=de&calPath=%2Fpublic%2Fspecial%2FPrivate&guid=CAL-00bb9e24-6633cf27-0166-36f2cbdb-00002421events@columbia.edu&recurrenceId=
People centric approach to optimize Data Science, Commercial impact and Leadership	10:30am November 14	https://events.columbia.edu/cal/event/eventView.do?b=de&calPath=%2Fpublic%2Fcals%2FMainCal&guid=CAL-00bb9e24-655b8449-0165-5e0ea7e9-00001957events@columbia.edu&recurrenceId=
Cross-device User Clustering at Adobe	11:00am November 29	https://events.columbia.edu/cal/event/eventView.do?b=de&calPath=%2Fpublic%2Fcals%2FMainCal&guid=CAL-00bb9e28-655b8cee-0165-5dd5c72b-00001287events@columbia.edu&recurrenceId=

Update a Github Fork

iGraph

iGraph

- Install and load the package "`igraph`"
- Generate a random graph:

```
g <- sample_gnp(10, 0.5, directed = FALSE, loops =
FALSE)
```

- Print the details of the graph:

```
g
```

Undirected/Directed, N = named vertices, Number of vertices,
W = weighted edges, B = bipartite graph number of edges

```
IGRAPH e5bd4b9 U--- 10 92 -- Erdos renyi (gnp) graph
+ attr: name (g/c), type (g/c), loops (g/l), p (g/n)
+ edges from e5bd4b9:
 [1]  1-- 3  2-- 3  2-- 4  3-- 4  3-- 6  4-- 6  4-- 7
```

iGraph

Data Structures

- Adjacency Matrix

	A	B	C
A		1	0
B	1		0
C	0	1	

To-From + Vertex Attributes

From	To
A	B
B	C
C	A

ID	Age
A	10
B	11
C	10

Plotting

- plot
- tkcl
- rggl

Adjacency & Vertex/Edge List

```
V(g)$label.cex <- 2.2 * V(g)$degree / max(V(g)$degree) + .2
```

Vertex/Edge List Only

```
plot(g, layout=layout,
     vertex.color= D8$cols,
     vertex.label = NA,
     vertex.size = 3,
     edge.width=0.02,
     vertex.frame.color=NA)
```

core-methods-in-edm/assignment2