

Ninth annual conference of the Jubilee Centre for Character and Virtues

Cultivating *sīla* Online: the use of Cognitive Interventions in Systems Design

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Presentation Outline

Background

Part 1: Moral Virtue

- Buddhist ethics
- Internet ethics
- An architecture for wholesome relationships

Part 2: Agency and Cognitive Aspects

- Agency – six characteristics
- Interventions

Conclusion

Background (professional/research)



The University of Oxford
History of Science Museum



Photo of History of Science Museum (2006), public domain
Difference Engine parts (inv. 94229), © HSM, University of Oxford



Knowledge-based Environment for
Personalised Learning using an
Artificial Intelligence Recommender

<http://keplair.info>

Background (personal)

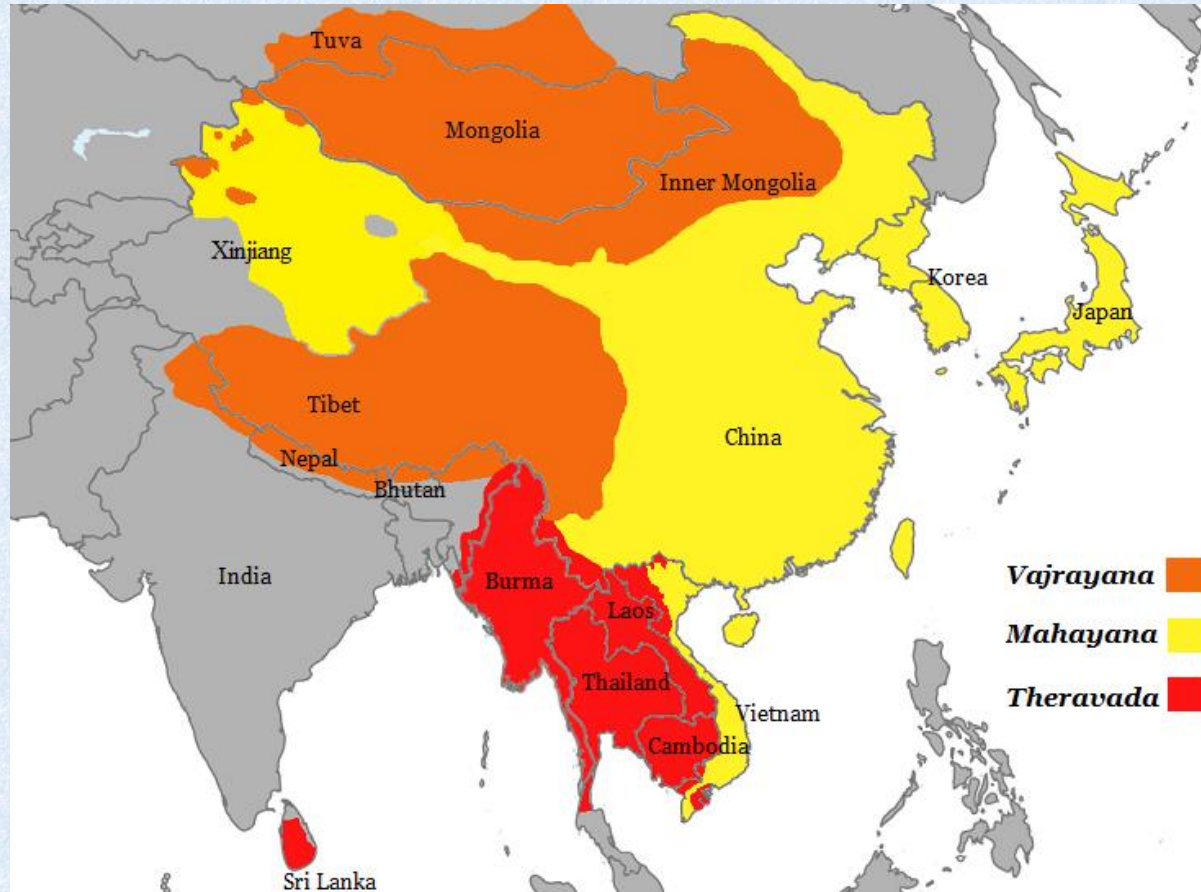


Fuengsin Trafford
(1936 – 1995)



Sangha members and Fuengsin,
Don Muang Airport (1963)

Buddhist Traditions in Asia



Credit: image created by Javierfv1212

Source: https://commons.wikimedia.org/wiki/File:Buddhist_sects.png

Part 1: Moral Virtue

Mind Precedes all Mental States 1/2

All mental phenomena have mind as their forerunner; mind is their chief, and they are mind-made. If one speaks or acts with a **defiled** mind, then **suffering follows** one even as the wheel follows the hoof of the draught ox.

(Dhammapada verse 1)

Mind Precedes all Mental States 2/2

All mental phenomena have mind as their forerunner; mind is their chief, and they are mind-made. If one speaks or acts with a **pure** mind, then **happiness follows** one even as one's shadow never leaves.

(Dhammapada verse 2)

Sīla

Moral virtue – a disposition and practice to be cultivated for purification of the mind

- Rules of training for sangha (monastics and wanderers) encoded as Vinaya
- Lay precepts derived as a greatly simplified form, suitable for household life

Internet ethics: Netiquette

In general, rules of common courtesy for interaction with people should be in force for any situation and on the Internet it's doubly important where, for example, body language and tone of voice must be inferred.

Ian Hambridge, IETF (1995)

Non-interference

“From its inception, Internet users have always been passionately in favour of internal control, and against outside influence ...

A recent British Government report summarised the position:

13. The Internet is perceived to have flourished because it was free to evolve without interference from any powerful self-interested groups (these are interpreted as including governments and multinational press corporations).

Duncan Langford, ‘Practical Internet Ethics’ (1995),
Computing Laboratory, Kent University

Commerce in e-Communities: About.com

site of the week

take back the net
Hundreds of real guides mining the net for you

phoenix, AZ your guide rick russell	horse racing your guide cindy pierson	budget travel your guide zane a. crowford
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information Arts/Entertainment

Mining a rich seam

Intelligent agents go some way to helping you cope with the mass of online information, but the Mining Company has found another way to deal with the thousands of links generated every time you use a search engine. It employs (shock, horror!) human beings to search the Internet for the best and worst sites in specific subject categories, so you can go directly to the most informative and entertaining pages and avoid wasting time with the dross. The British Theatre site, for example, lists nearly 200 links in eight categories with updates every week. Makes a more useful home page than most search engines.

www.miningco.com/

Daily Telegraph, May 1997

- Company: General Internet
- Product: MiningCo (later About.com)
- Founded 1996
- Launched April 1997
- CEO: Scott Kurnit
- Editorial gateway + subject interest community
- Funded by advertising

Ten Years later ...

Prompted ->

You Are Not My Friend

Yes, we're on Facebook. But I don't care about your cat. And stop poking me

By Joel Stein | Thursday, Oct. 04, 2007

 Share

Read Later

In the pre-internet days, neither of us would have even thought of calling each other friends. We'd have called ourselves friends of friends who met once and yet, for some reason, kept sending each other grammatically challenged, inappropriately flirty letters with photos of ourselves attached. Police might have gotten involved.



Illustration by Francisco Caceres for TIME

Illustration by Francisco Caceres for TIME

[yes Resources Professional Development Community About EDUCAUSE](#)

» [Paul's blog](#) » On 'Friends' and other associations

On 'Friends' and other associations

Created by [Paul Trafford](#) (University of Oxford) on November 10, 2007

Having indicated that I would write something about Web2.0, I finally get round to doing something. Have you ever wondered about the concept of 'friends' in social networking site? I've been thinking for a long time that they dilute the meaning of friendship and try to address this here by appeal to some Buddhist teachings, particularly the Sigalovada Sutta...

This week's edition of [Time Magazine \(Europe\)](#) [dated 19 Nov. '07] appeared through my letter box this morning with a copy of 'You are not my Friend' by Joel Stein, a humorous essay on social networking sites,

Sources: Time Magazine, <http://content.time.com/time/subscriber/article/0,33009,1668441,00.html>, EDUCAUSE blog (archived at Wayback machine)

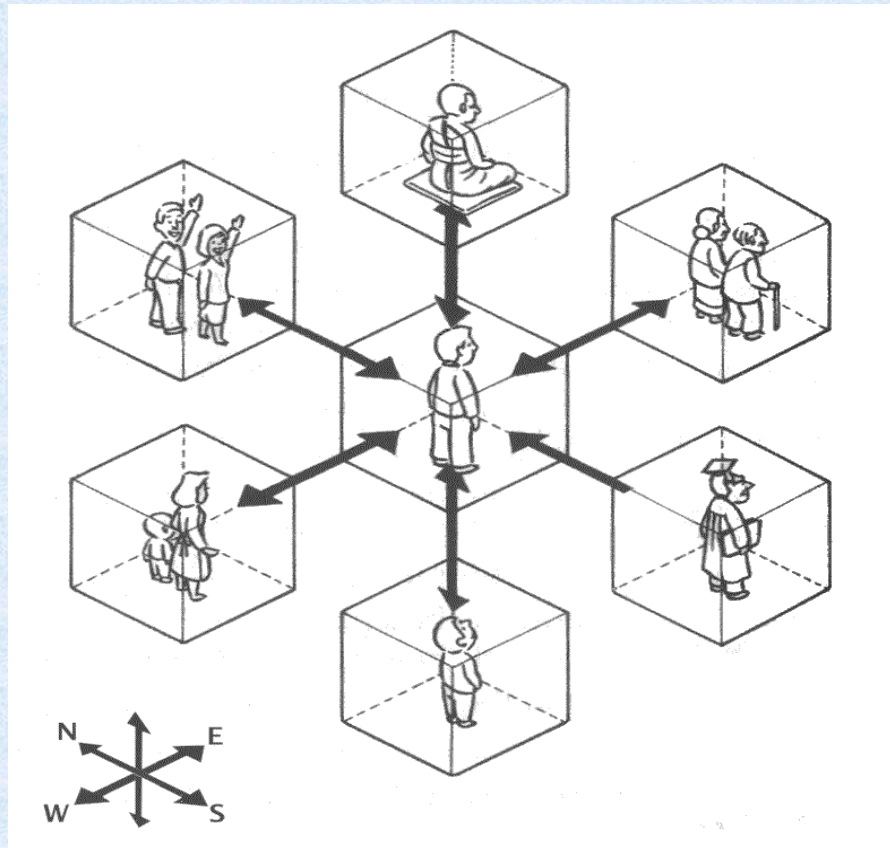
Who is a friend?

Compare social media friends connections with the Buddha's description:

“... in whatsoever village or market town a householder dwells, he associates, converses, engages in discussions with householders or householders' sons, whether young and highly cultured or old and highly cultured, full of faith, full of virtue, full of charity and full of wisdom. He acts in accordance with the faith of the faithful, with the virtue of the virtuous, with the charity of the charitable and with the wisdom of the wise.”

(AN 8.54, Narada trans.)

Six Directions of the Sigālovāda Sutta



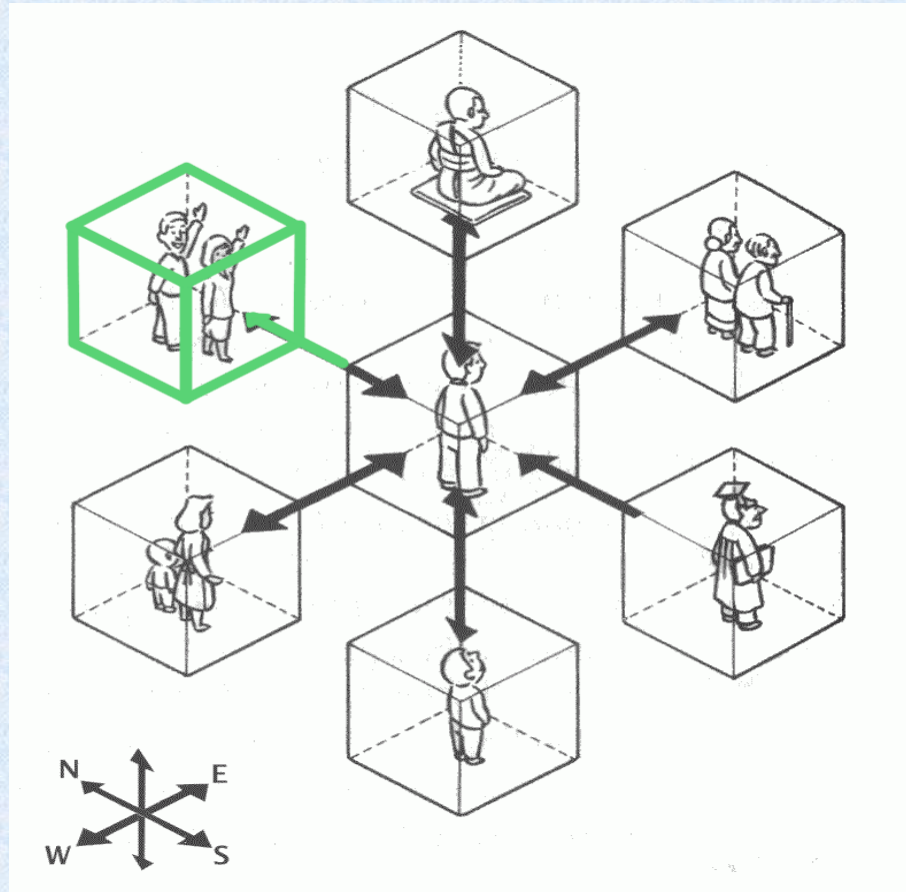
Visualization after Venerable Dattajeevo (2006)

The cultivation of wholesome relationships with discernment of true friends and of foes in the guise of friends.

Six Dyadic Connection Types

1. spiritual guide or guru – disciple
 2. teacher – student
 3. friend or associate (peer relationship)
 4. employer – employee
 5. spouse (peer relationship)
 6. parent – child
- * Separation of concerns *
- => Implement in SNS through mutual agreement.

Example: Cultivating Friendship (N)



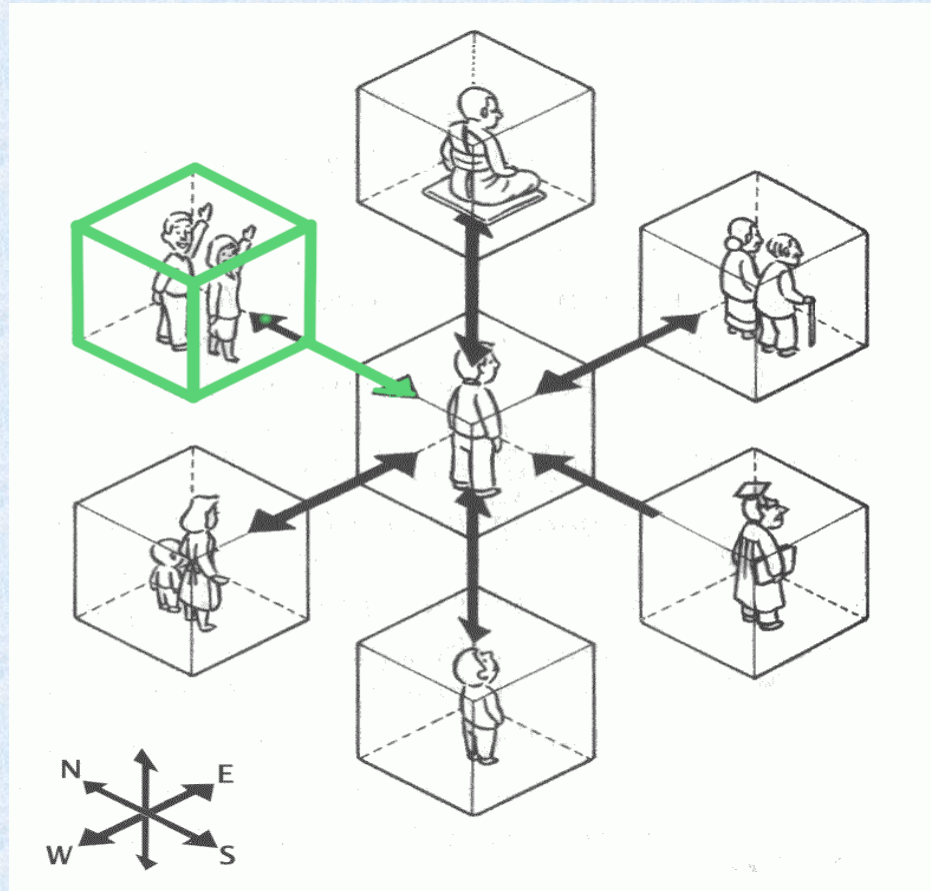
Visualization after Venerable Dattajeevo (2006)

To friends and associates:

- i. liberality
- ii. courteous speech
- iii. being helpful
- iv. being impartial
- v. sincerity.

Details: <https://research.siga.la/research/relationships/>

Example: Cultivating Friendship (N)



Visualization after Venerable Dattajeevo (2006)

From friends and associates:

- i. Protect against heedlessness
- ii. protect property when he is heedless
- iii. a refuge when in danger
- iv. do not forsake in times of trouble
- v. show consideration for his family.

Details: <https://research.siga.la/research/relationships/>

Part 2: Agency and Cognitive Aspects

Agency: Attakārī Sutta (The Self-Doer)

Agency as a doer (oneself or other) having six characteristics:

- initiation
- exertion
- making effort
- steadfastness
- persistence
- endeavouring

Agency: Attakārī Sutta (The Self-Doer)

- initiation
- exertion
- making effort
- steadfastness
- persistence
- endeavouring

What is the short-term and long-term impact on agency using:

Calculators?

Satnav?

Agency: Perseverance

“I am living here in a state of great anxiety and of the greatest physical fatigue: I have no friends of any sort and want none. I haven’t time enough to eat as I should. So you mustn’t bother me with anything else, for I could not bear another thing. ... And thus have I lived for some fifteen years now and never an hour’s happiness have I had.”

(William Wallace (2011), ‘Michelangelo: The Artist, the Man, and His Times’)



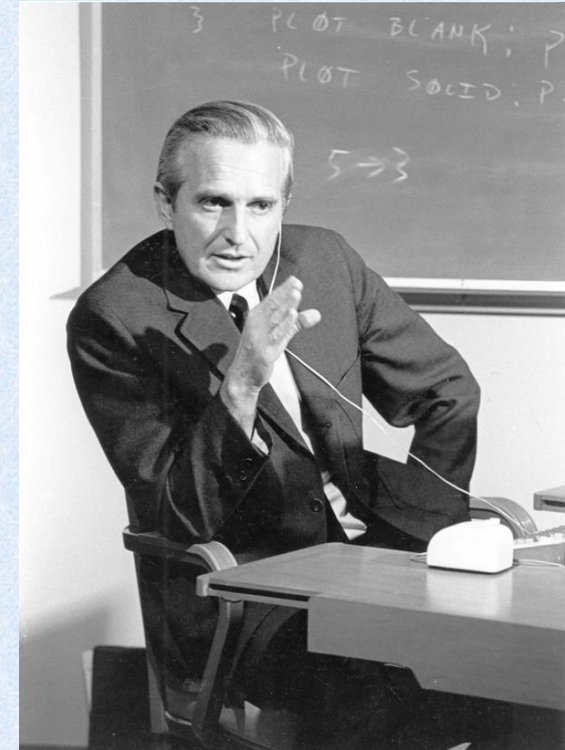
Artificial Intelligence

Humane view: augmenting human intellect
(Douglas Engelbart *et al.*)

Many methods:

- Natural language processing
- machine learning ...
(ethical challenge of 'black box' vs
'transparent' methods)

How does AI impact decision-making?



Douglas Engelbart at Stanford Research Institute 1968 (image © SRI)

Moral decision-making takes time

“For some kinds of thought, especially moral decision-making about other people’s social and psychological situations, we need to allow for adequate time and reflection.”

Mary Helen Immordino-Yang (in interview with Carl Marziali, USC News, April 14, 2009)

President of the International Mind, Brain and Education Society (IMBES), 2016-18

... for reflection



Plitvice lakes, Croatia. (cropped)

DCMA license, source: <https://www.pxfuel.com/en/free-photo-oywmg>

Interventions

- *inter + venire* [Latin]
- Coming in between – with the intention to modify the outcome (design)
- System-oriented -> ‘attention economy’
- User-oriented -> ‘attention recovery’
 - In parallel – as in NHS mindfulness apps
 - ***In situ*** – requiring system (re-)design

Addictiveness by Design 1/2

“The thought process ... was all about: 'How do we consume as much of your time and conscious attention as possible?'” “And that means that we need to sort of give you a little dopamine hit every once in a while, because someone liked or commented on a photo or a post or whatever...”

Sean Parker quoted in *Axios*, 9 November 2017

Addictiveness by Design 2/2

“... And that's going to get you to contribute more content, and that's going to get you ... more likes and comments.” “It's a social-validation feedback loop ... exactly the kind of thing that a hacker like myself would come up with, because you're exploiting a vulnerability in human psychology.”

Sean Parker quoted in *Axios*, 9 November 2017

No time for moral decision-making



Original photo by Hans Braxmeier from Pixabay (cropped)
<https://pixabay.com/photos/flood-waves-riverbank-splash-swirl-123203/>

Software Interventions

Amber Case's informal suggestions:

- **Cool-off before commenting:** system can impose a “cool-off” delay before further comments can be made to a hot topic.
- **Quiz before commenting (or sharing):** check that they have read the article they're commenting on it
- **Implement timeline “rest” options:** at user discretion, no associated notifications or comments

Case, A. (2018). 'The problems with Facebook are inherent in its design, but that can change'.
TechCrunch, 16 April 2018,
[https://social.techcrunch.com/2018/04/16/
the-problems-with-facebook-are-inherent-in-its-design-but-that-can-change/](https://social.techcrunch.com/2018/04/16/the-problems-with-facebook-are-inherent-in-its-design-but-that-can-change/)

Project Zero Thinking Routines

Project Zero, Harvard Graduate School of Education, originated in 1960s.

- Innovating with Intelligence project, developed materials for character and intellect “that help teachers foster student’s thinking dispositions through the exploration of six thinking ideals: **truth, beauty, imagination, understanding, fairness and self-direction.**”
- Thinking Routines such as ‘See/Think/Wonder’
Toolbox: <http://www.pz.harvard.edu/thinking-routines>
- Visible Thinking designed particularly to help educators
<http://www.pz.harvard.edu/projects/visible-thinking>

Example: Vācā Sutta – ‘Five-star’ speech

Spoken at the right time

Spoken in truth

Spoken affectionately

Spoken beneficially

Spoken with a mind of good-will

AN 5.198

... vs social media comms

Vācā Sutta	Status updates in Facebook, Twitter etc.
Spoken at the right time	Spoken at any time (with nudges)
Spoken in truth	May or may not be spoken in truth
Spoken affectionately	May be spoken with or without affection
Spoken beneficially	May or may not be beneficial
Spoken with a mind of good-will	May or may not be spoken with a mind of good-will

Thinking Routine for Vācā Sutta 1/2

Formalisation as a process of four *moves* (steps)

1. Notice

What is it that you 'see' that prompts you to write?
What's inspiring you?
How does it make you feel? Is it positive or negative?

2. Think

What do you want to say?
Is it true?
Have you got your facts right?
Is it the right time to say it?

Thinking Routine for Vācā Sutta 2/2

3. Imagine

Who's going to read your message?

What will they feel when they read it?

How will it benefit them?

4. Plan

What's the best way to say it?

Prompts:

- friendly intentions
- gentleness

(Why do these work?)

Deployment options

- Specialist training sessions (early years, elderly, special needs)
- Addition to corporate information security training
- Software interventions – as assistant apps
- Intrinsic to system designs (incorporated *in situ*)

Conclusions

- Further interdisciplinary work needed. (Methodological issues tied to social capital as a basis for well-being.)
- The Buddha's teachings on *sīla* to Sigāla through the '6 Directions' more faithfully represents human relationships and guides their wholesome development
- But, any ethical theory or moral code hampered in practice by system environments – by design.
- New designs needed with interventions to free up space for reflection => propose thinking routines focused on virtues.

Ongoing Research

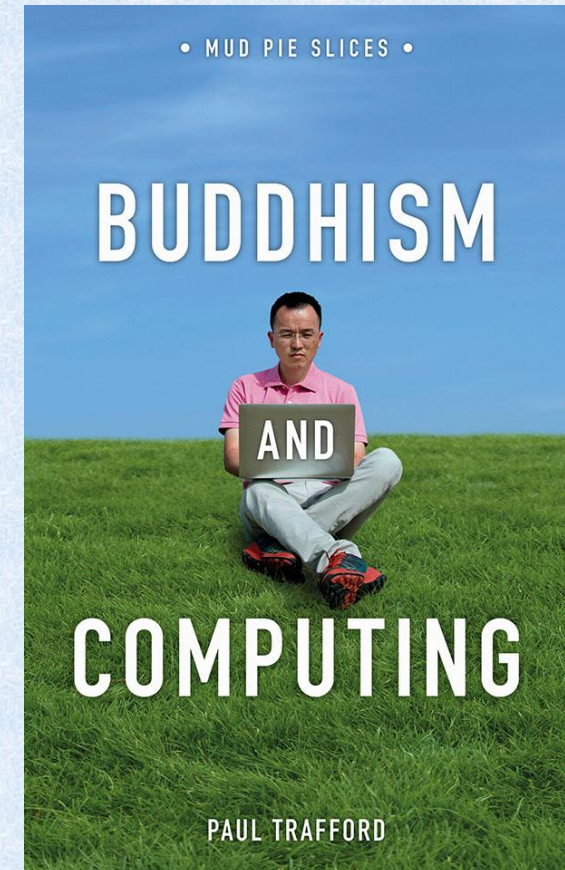
Buddhism and Computing: How to Flourish in the Age of Algorithms (2021), Mud Pie

<https://mudpiebooks.com/books-authors/buddhism-and-computing/>

Sigala Project

<https://research.siga.la/>

Next step: build a SNS prototype



Thank you

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