SANSKRIT AND AI / PART 07 / STUDY NOTES

Sanskrit and AI, Part 7: Piṅgala's Machine

Study notes by Sanskrit AI Universe, based on this video

Video by Dr P.R.K. Varma, Founding Editor · DrVARMA PRK · 17 Nov 2026

Not the creator's own slides

About these notes

— Official title: Sanskrit and AI part 7 : Pingala's Machine | Dr.P.R.K.Varma.,M.D.,D.M.

— Speaker and channel: Dr P.R.K. Varma, Founding Editor · DrVARMA PRK

— Published 17 Nov 2026 · Running time 32 min 46 s · https://www.youtube.com/watch?v=90eucVT_O5E

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— Caption source: English auto-generated subtitles. Wording may be imperfect. Distinctive phrases follow the captions closely.

This part in brief

— He asked never to die, that he was told cannot be given.

— He went through his cases, found no gap and ruled without fear.

— Vishnu came as Narasimha, half man, half lion, at dusk on a threshold with the king laid across his lap and with claws.

— Because this part is about a space of cases, how to lay it out, how to count it, and how the case that nobody wrote down gets in.

— The sister science is meter, and its founding text is the Chandah sūtra of Piṅgala.

Chapter one, the table

— Three questions about a space of cases, what it is made of, how to list every case once, and how long that list will be. will be.

Problem one, a space nobody has defined

- They took commercial models with good scores and wrote small, plain tests for one ability at a time.
- So the authors drew a grid, abilities down the side, kinds of test across the top.
- The first a short vowel is light sūtra 1 4 10.
- The grammar has already decided with a rule we met in part three.

Problem two cases skipped cases repeated

- In 2016 two researchers at the RAND Corporation worked out how far it would have to go.
- So a car would have to cover hundreds of millions of miles to prove its record by driving alone.
- With the test fleets of that time, it would have taken tens of years, in some cases, hundreds. cases, hundreds.
- The child who runs out between two parked cars, perhaps not once.

Problem three, how is it

— So before listing, a tester should know how long the list will be.

— Since the table could not be written, they trained the program to judge a position without playing it out and to consider only the likeliest moves.

— Then walk back through your notes, last to first, and do what each one says.

— Try eight halves to four halves to two halves to one cannot be halved, so take one away and nothing is left.

Chapter two, the index

— Four questions about finding your way in it, from a number to its row, from a row to its number, across its layers, and along its whole length.

Problem four, a result nobody can rebuild

— Another laboratory could repeat the work faithfully and get a different answer.

— Piṅgala's name for this is nashta, the lost one. lost one.

— If it cannot, write heavy, add one and then halve it.

— Five cannot be halved, heavy, add one and halve three cannot be halved, heavy again, add one and halve two can be halved, light.

Problem five, a failure without a name

- Years later, an engineer in another country can find it.
- The news moved on and another team made the same mistake.
- The AI incident database, its founder took the model from aviation.
- A failure that has a name can be cited, counted, compared, and not repeated.

Problem 6 tests that crowd the easy corner

- In 2020, four researchers in Adelaide and Stanford asked what such a score is made of.
- The rare aggressive tumor, the collapsed lung that has not yet been treated.
- So a tester has to know the layers of the space.
- Piṅgala's sūtra for this is two words long and nobody could read it without help.

Problem seven, a run with no budget

- In 2019, three researchers at the University of Massachusetts added it up for models of language.
- Report how long the training takes and how much the result depends on the settings.
- In other words, say what the road costs so that the next traveler can decide whether to set out.
- The road is measured so that you know before you start that this table can be visited by number but never walked.

Chapter three, beyond the table

- The six tools assume steps of equal weight, a table worth walking, and a single field.
- The last three problems remove those assumptions one by one.

Problem eight, steps of unequal cost

- Yet agents are usually ranked by a single figure, how many tasks they complete. they complete.
- An agent can raise its score simply by trying again and again.
- Simple methods of their own did, as well as elaborate agents, for much less money.
- So the question changes, not how many patterns have four syllables, but how many patterns last four beats.

Problem nine, a long test that still misses

- Running every model through all of them costs time, money, and energy, and length is no guarantee.
- Among thousands of questions, many tell you what another has already told you.
- From those 100, they could estimate a model score on all 14,000 to within about two points in a hundred.
- So the question is not how long a test is, it is how little of it is wasted.

Problem 10, a method locked in one field

— In place of the doubled numbers, he draws a new table, the Khandameru, a column for every note, each column taller than the last.

— For model builders, before you invent a way of testing, ask which older field has met the problem.

— Kedara and Halayudha are placed differently by different scholars and the sūtras are numbered differently in different editions. different editions.

— Several rules were told here in the commentators' versions because those are easier to follow.

Sources and credit

— Study notes by Sanskrit AI Universe, based on the video “Sanskrit and AI part 7 : Pingala's Machine | Dr.P.R.K.Varma.,M.D.,D.M.”. These are not the creator's own slides.

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— Watch the video: https://www.youtube.com/watch?v=90eucVT_O5E

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